

ENERGY -

9 JANUARY 1982 - 30 Sept, 1982

Maputo bid to cut SA deal on power

Star
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2/19

LISBON — Mozambique infuriated by what it alleges is South African-backed guerilla sabotage, yesterday unveiled plans for ending the Republic's virtual monopoly on Mozambican power exports.

An official communiqué after talks between the Portuguese and Mozambican governments on the future of the Cahora Bassa dam in Mozambique, which normally exports 97 percent of its power to South Africa, said

Mozambique had sought Portugal's co-operation in diversifying supplies.

Malawi and Zimbabwe might buy electricity from the Portuguese-operated dam, it said.

Cahora Bassa in normal circumstances supplies 10 percent of South Africa's electricity needs, but power lines were severed on December 22.

Mozambique's Marxist regime blames the sabotage on the Mozam-

bique National Resistance Movement (RNM).

The lines have only been working for six of the last 20 months because of guerilla action.

CONTRACT

Portugal receives revenue from the Cahora Bassa operation to repay R740-million in international loans raised to finance the dam's construction before Mozambique became independent from Lisbon in 1975.

The chief Mozambican negotiator, Mr Abdul Magid, emphasised that his country was not planning to rescind the contract with South Africa, but wanted to find alternative markets for the power it produced.

Portugal's Secretary of State for the Treasury, Mr Walter Marques, who headed his country's delegation, said Portugal still owed more than R600-million to the consortium of French, West German and South African banks that financed the project.

Talks with South Africa to raise the price of the electricity supplies were indispensable.

VULNERABLE

In order to begin exports to Zimbabwe and Malawi, power would need to be supplied northwards from the dam on lines that would probably be less vulnerable than the present 2 000-km line running to the southern border with South Africa.

The cost of this new development would be between R500-million and R600-million according to Mr Magid, who said the three main groups that had tendered for the project were a Franco-German consortium, a Japanese one and a Scandinavian one. — Reuter.

Cahora power may cost more

Officials from the Cahora Bassa company in Portugal are expected to raise the question of price when they visit Pretoria soon to discuss the future of the scheme.

Industry sources say the proposition has become uneconomic for the owners of the Mozambique powerstation

because electricity prices favour Escom. The South African concern buys about 97 percent of the 2 075 Mw output generated.

The Mozambique Government is understood to have asked Portugal to play a key role in the construction of a R600-million second phase for the

scheme — hence the forthcoming visit to Pretoria.

Last week senior Mozambique and Portuguese officials met for three days in Lisbon in an effort to resolve the future of Cahora Bassa which is burdened by R615-million in outstanding debts and has been hit by repeated sabotage.

Last year the flow of power was cut as a result of terrorist activity in April, just as demand increased because of colder weather.

The supply was restored in the last week of October but was cut again on December 22. There has been no power from Cahora

Bassa into the South African grid since that date, a factor which will no doubt be raised by Escom in any discussions with Portuguese officials.

Last year less than half the potential output was exported, because of the interruptions, and although South Africa depends

for only eight percent of its consumption on the Mozambican supply, Escom was unable to meet full demand on some of the coldest days of the 1981 winter.

The problem for Portugal is that it remains responsible for the outstanding foreign loans incurred but is losing money on the project because of the interruptions in sales and the allegedly low price paid by Escom.

Industry sources told The Star today it is cheaper for Escom to buy power from Cahora Bassa than to do its own generating.

In an official statement today Escom said that while power from Cahora Bassa was cheaper than that from coastal powerstations in South Africa, "it is not necessarily cheaper than power from our new stations based near coalfields."

(55) RDM
12/1/82

Cabora — we're not powerless, says Escom

A SUSPENSION of electricity from Cabora Bassa to South Africa would not have a significant effect on the country's overall power supply, an Escom spokesman said yesterday.

He was reacting to reports that Mozambique wanted to cut off the electricity supply from the plant to South Africa.

The spokesman said that Cabora Bassa accounted for only eight percent of South Africa's electricity needs and said this would be made up from Escom's existing plants.

He said the power supply from the plant had been cut since December 22 last year, when power lines were severed without much effect.

Mozambique last week unveiled plans for ending South Africa's virtual monopoly on Mozambican power exports.

The Escom spokesman said yesterday that, because of increasing demand, the

Mail Reporter

generating capacity of three plants — Matla, Duva and the hydro plant in the Drakensberg — would be extended this year.

He said the Drakensberg plant would be generating 1 000 megawatts — 500 more than last year. Duva would reach full generating capacity of 3 600 megawatts by 1984, while Matla would reach 3 600 by next year.

"Although we would still continue to buy power from Cabora Bassa if it was made available, the price would have to be right and the scheme will have to be reliable," the Escom spokesman said.

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AC* *MR
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Chinese deny Koeberg U-deal

Own Correspondent

HONG KONG — Reports that China is helping kick-start South Africa's first nuclear powerstation continue. The latest appears in a weekly magazine here.

The "Far Eastern Economic Review" said American officials maintain that Chinese enriched uranium was involved in the start-up of the Koeberg reactor.

In a report from Washington, the weekly — normally well-informed about Chinese affairs — said that several well-placed officials all remarked that Chinese enriched uranium, marketed through a Swiss firm, was involved.

A senior State Department official commented: "There is Chinese enriched uranium in the picture."

The reports have been circulating about six weeks but have met vigorous denials from Peking. The review quoted a Chinese embassy official in Washington as saying: "If we knew where the material was going we would never sell it to South Africa."

China has disclosed sales of some nuclear material to other countries, but said it was for peaceful use and the sales were made under safeguards.

It is reported that heavy water and enriched uranium have been sold to Argentina with which China has increasingly closer links.

China has good deposits of uranium and at least two nuclear reactors used for research. It is advanced in nuclear technology.

Reports that it had sold enriched uranium to South Africa came first from normally well-informed energy industry sources in Hong Kong about six months ago. The reports were sketchy and unverifiable. But they indicated that, in some way, the uranium had been laundered.

This means it was passed through a third country to disguise the fact that it was being sold to the end user. The American reports are now mentioning a Swiss firm as the middleman in a China-South Africa deal.

The sources in Hong Kong also recalled that China was interested in the extremely successful South African gasification process for coal. This remains closely guarded technology, the sources noted.

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GENERAL NEWS

Manpower shortages hit power stations

Star 18/1/82

By Lucille McNamara
Municipal Reporter

Skilled manpower shortages were responsible for plant breakdowns at Johannesburg power stations as the standard of workmanship continued to deteriorate, said city engineer Mr Wessel Barnard in his annual report.

Shortages of engineering and artisan staff had affected the standard of workmanship, tasks were taking much longer to complete and equipment and plant were less reliable.

"The seriousness of the situation is clearly exemplified in the council's power stations where plant breakdown and the inability to carry out planned maintenance are becoming more and more common. Manpower shortages also extend into the operating area and as a consequence the incidence of malfunction has been on the increase."

Mr Barnard said that because local authorities had not been able to attract and retain the services of competent technical staff in recent years, emphasis had been placed on training to try to meet demand.

"The number of trainees is limited by the lack of suitable applicants. The majority of trainees are lost to commerce and industry on completion of their studies."

Mr Barnard said that because training had to be supplemented by the attraction of experienced skilled staff, his department had again undertaken a recruiting mission in the UK.

While the city council had been able to appoint artisans, the recruiting mission had been less successful in attracting engineering staff.

By Jaap
The Johannesburg system whereb obtain inform buses from a a minute.

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Building yacht teaches maths

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Soekor (55)

27/1/82

Star

Soekor Shows Best Results in 16 years

Soekor's results last year were more promising than any other since the South African search for oil began 16 years ago, the managing director, Dr. P. J. van Zijl, said.

Reviewing the past year, he said the second of eight boreholes in the important area south of Mossel Bay — seven of which were completed last year — had yielded very promising results in terms of gas and light oil.

Four of the eight boreholes produced gas at a rate considered economic, plus light oil, while a further two holes produced small quantities of gas. A hole on the West Coast also produced gas at the surface.

One or two holes were still to be drilled in the Mossel Bay region. "In spite of the fact that the reserves are smaller than originally anticipated, the find remains of great value and if further

discoveries should be made in the vicinity, a reserve that is big enough to sustain economic production might be established," Dr. Van Zijl said.

Soekor had drilled 15 boreholes last year compared to seven in 1980.

Dr. van Zijl said the intention of simultaneously operating three rigs offshore had been abandoned as unit costs had risen rapidly and Soekor was trying to remain within its five-year budget.

It was expected the same number of boreholes would be drilled with two rigs as was originally planned for three.

Soekor intended to terminate the contract of the Sedco 708 rig within weeks and the Sedco K might also eventually be released.

It would continue its programme with two rigs presently being built according to local specifications and conditions. — Sapa.

S A will find oil

Mercury
#27/7/82

(5)

— says expert

SOUTH Africa will achieve ultimate success in its oil search, although since the 1960s when exploration began — first on land and then at sea — not much has so far turned up.

This is the view of Dr Franz Quass, a former managing director of Soekor, the Southern Oil Exploration Corporation. He has spent a lifetime in energy research, specialising in both coal technology and oil prospecting.

Dr Quass bases his reasoning on the fact that since Soekor began its oil search, there have been significant discoveries, both on land and at sea.

Four finds

Out of 39 deep wells drilled on land, oil turned up in non-commercial quantities four times and gas once.

At sea, since 1969, 45 wells have been drilled. Two commercial gas discoveries resulted and many significant gas shows, along with three of oil.

This, to me and presumably to Dr Quass, means that there is something down there. How much we won't know until the search, which has really only started, is complete.

The other side to his ar-

gument is also interesting. He points out that oil was only discovered in Nigeria after 19 years of searching, and in Australia after 11 years.

In Canada, 3 000 wells were drilled before the large Leduc field was found.

'Considering the large prospective land areas still completely unexplored, I believe that the onshore search deserves further strenuous effort,' says Dr Quass in an article in *Energos*, a magazine put out by one of South Africa's biggest oil companies.

Although the drilling we have done in and around this country may in some way be much more expensive or difficult than elsewhere in the world, the amount of effort we have put into the search for all-important oil seems to be minimal, according to Dr Quass.

'It is not generally realised how much effort goes into finding more oil. In 1973 (before the Opec crisis) the U S alone drilled 26 000 wells, onshore and offshore, while the rest of the world drilled 6 500. By 1978 these figures had risen to 50 000 for the U S and 13 000 elsewhere. Set this against South Africa's total of six wells being drilled in 1978.'

New power in Soweto

POOL NAB

Sowetan 22/1/82 55

GREATER SOWETO will next Tuesday switch over to Escom power that will cost R208 million on completion, and serve more than 105 000 houses with electricity.

Scheduled for 10,30 am, the ceremony will be held at the Mofolo Park sub-station and will be attended by officials of the West Rand Administration Board, the Diepmeadow, Soweto and Dobsonville councils, contractors, bankers and certain members of the public.

Announcing this yesterday, Mr M Van der Spuy, general manager of the Greater Soweto electrical undertaking said it will be a switch over from the old Johannesburg City Council electricity system "that is loaded to capacity".

Mr Van der Spuy said: "We have completed sufficient sections for the new high voltage system in Soweto to start taking supply from Escom." He added that more than 105 000 houses will be connected to the new power system by the end of next year. Of this number, he said, about 1 600 houses will receive power from this new system in about six weeks from now. He said an additional 20 000 houses have been wired and were ready for such power, and another 24 000 houses connected to the old system would have it gradually phased out for the new system.

Mr Van der Spuy said: "We have spent R66 million in the past 18 months and we are going as fast as it is humanly possible." He said at the end of the job which is scheduled for the end of next year, "the final figure for completing the system will be R208 million."

The consumers would be charged 3,5 cents per unit, and the average amount of a monthly bill would be R35 to R40.



David "Pine" Chabedi trying to dodge our cameraman outside court yesterday. The "Birds" treasurer is alleged to have issued cheques ex-coach Foria Medina denies having received. See Page 3.

BOPHI officials suffocated this week

The meeting of three police court on Monday. The three men known for a misdeed Tribal Authority. Two other Stephen Thibe Dube Moele's death and was treated at the letsi hospital. men had detention Friday and were Monday morning.

The news of and the survival two spread like in the sleepy township and are demanding authorities should prove on facilities.

When The ETAN visited yesterday, blankets and a belt were found scene. There was stench in the 'ce Chief Frank who has been head tribe for 18 years. The SOWETAN whole thing is happened while away. I only arrived Sunday night."

The chief said normally suspect locked in a room cent to the store-room which these people found. He did not the reason why were locked in storeroom this time appeared to him.

IT'S all action on the soccer front this weekend. At Super Stadium in Atteridgeville tomorrow Moroka Swallows Limited take on Highlands Park in a match that promises to be a

thriller all the way. On Sunday double champions Kaizer Chiefs face unpredictable Arcadia Pepsi in a bid to snatch the BP crown. As usual, The SOWETAN team of top

writers and photographers will be there to bring you the exciting news and pics of the semifinals. So don't forget your copy of THE SOWETAN on Monday.

By BEV MORTIMER

ESCOM would more than double its electricity generating capacity to 38 000 megawatts within the next 10 years, the chairman Mr Jan Smith said yesterday.

Opening the seventh conference of Southern African Surveyors, Mr Smith said: "And by the turn of the century we expect capacity to be in the region of 72 000 MW."

For the past 30 years the average growth in the demand for Escom electricity had been 8,8 percent a year and had exceeded the economic growth by two to four percent.

"At current prices this means Escom will be spending some R14 000-million within the next 10 years to provide for the increasing demand in electricity," Mr Smith said.

He stressed the importance of the land surveyor in Escom's task of providing adequate supplies of electricity to South Africa.

"In most cases he (the land surveyor) is involved right at the initial stages of planning for future electricity requirements. He is the first in the field when sites for power stations are investigated.

"And in the routing of transmission lines, it is the land surveyor who has to traverse terrain and become involved in final decisions."

More than 550 delegates, including about 70 surveyors from Europe and the United States, are attending the five-day conference, called Con-sas 82, at the University of the Witwatersrand.

One delegate, Mr Ken Simpson, said there was widespread concern that surveying was becoming a service profession with the surveyor providing the technical data upon which others made decisions.

The president of the Cham-

Escom geared to double output

ber of Mines, Mr L W P van den Bosch, said the surveyor needed to break out of the traditionally narrow confines of his field and familiarise himself with new technology.

"New technology has placed valuable additional tools at the disposal of the surveyor. He has to make these tools his own — before others seize the opportunity and oust the surveyor once more from a legitimate field of activity," he said.

(55)
nom 26/1/82

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Soweto
Stow
substation
26/1/82
electrified

Power was officially transferred today from Escom to one of Soweto's major substations in a step towards the full electrification of the township's 103 000 houses.

A spokesman for the West Rand Administration Board said only the Mofolo North substation had been supplied with power as testing was still being done.

The substations at Protea and Diepkloof and the two incomplete ones at Moroka and Diepkloof would be supplied later, he said.

The spokesman said no houses had been electrified in this exercise but from about June or July onwards between 3 000 and 4 000 houses a month would be supplied with power.

More street cables still had to be installed and the whole project would be complete by the end of 1983.

Lighting up time comes to Soweto

Mail Reporter

THE switch-on of the largest single project ever connected to the national network of Escom took place at the Mofolo sub-station in Soweto yesterday.

Mr J Knoetze, chairman of the West Rand Administration Board, opened the first phase of the Escom's R206-million electrification project.

Mr Knoetze said: "The electrification of Soweto is a project of historical significance and serves as a basis to improve the quality of life not only for 1 250 000 people of Soweto but, hopefully, for all black townships throughout the country, eventually."

He said 24 000 houses were originally connected to the old Johannesburg system and another 1 000 had since been connected to the new system.

Some 6 000 are awaiting connection and a further 13 000 houses should be connected by the end of 1983, he said.

(55) (E) 16
'SWISS
sold SA
atomic
fuel, 27/1/82

Mall Reporter

SWITZERLAND has been named as the source of South Africa's atomic fuel for the Koeberg power station.

This solves a three-year mystery surrounding the source of enriched uranium after a United States ban on supplies, according to Mr David Adamson of the London Daily Telegraph.

The newspaper said a large supply of South African-owned uranium was being stored in France, and is to be made into fuel rods for the Koeberg reactor, near Cape Town — due to be "loaded" next year.

The report reveals how South Africa obtained uranium since a US embargo was imposed in 1978 after Pretoria had refused to sign the Nuclear non-Proliferation Treaty.

The fuel was bought by a New York company from a Swiss concern building a reactor near Basle, and resold to Escom.

The Atomic Energy Board has declined to comment.

● Full report
— Page 10

Escom (55)

eyes

Mercury
27/1/82

Zinkwazi

for N-plant

Pietermaritzburg Bureau

A SECOND Koeberg-style nuclear power reactor could rise out of the bush near the small North Coast town of Zinkwazi Beach.

A possible site for a power station on the coast between Zinkwazi and the mouth of the Tugela has been examined by a team of Escom surveyors who were in the area for three weeks, an official source in the affected area said yesterday.

The possibility of Natal getting a nuclear power station was first raised by a former chairman of Escom, Dr R L Stras-zacker, who, in an interview with the Mercury's science correspondent, said that nuclear power had to replace coal in future electricity generation.

Only Natal and the Cape would ever have reactors, he said, as they had to be near the sea to get the huge volumes of water needed for cooling.

A Johannesburg spokesman for Escom said yesterday the commission was always on the lookout for possible power station sites.

Negotiating the possible purchase of land did not mean that a power station would be built in the near future, he said. He confirmed the commission had approached Huletts about buying land.



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N-plant plan for Natal sparks off row

55 Stan
27/1/82

Own Correspondent

DURBAN — A row broke out today over the possible siting of a nuclear powerstation at Zinkwazi beach, 100 km north of Durban. Among those expressing concern was Mr Ian Player, the renowned conservationist.

It was pointed out that a geography Honours thesis had shown that nuclear energy released minute quantities of radio nuclides, especially tritium, into the sea, which affected sea life.

This would increase along the food chain with the Mozambique Current, which flows past the Natal coast.

A coastal strip between Zinkwazi and the mouth of the Tugela River has been closely examined by an Escom team as a possible site for Natal's first nuclear powerstation.

A spokesman for Escom said only Natal and the Cape would ever have reactors because they had to be sited near the sea to get the huge volumes of water needed for cooling.

Escom was continually looking at potential sites.

SITES

Although Zinkwazi had been closely studied there were "no definite plans he could disclose at present."

However, sites some distance from coalfields would be seen as "preferable" at this stage, he said.

Mr Player said today: "The world is heading a path towards nuclear power and there is no point getting uptight about it. "But we must concern ourselves with the siting of stations."

He questioned the suitability of Zinkwazi.

"Radiation leaks in Pennsylvania and New York have shown that correct siting is critical.

"There are strong north-easterly winds which reach Durban.

"If a site north of the city was chosen and there was a leak, there is a chance that Durban would be in line," Mr Player said.

Petticoat power climbs into the cab

By Gill Rennie

Petticoat power climbs into the cab with the announcement by the Johannesburg Transport Department that women will soon be driving the city's buses.

The announcement was greeted with apprehension by some leading local drivers.

"Well," said South African Formula 1 champ Ian Scheckter, after a breathless gulp, "at least if women drivers are behind the wheel of a bus it keeps them off the race track."

Mr Scheckter is known for his derogatory views on female racing drivers.

SURVIVE

"I once flew from London to Holland with an all-woman crew, from the pilot down. If I survived that, I suppose I could survive anything."

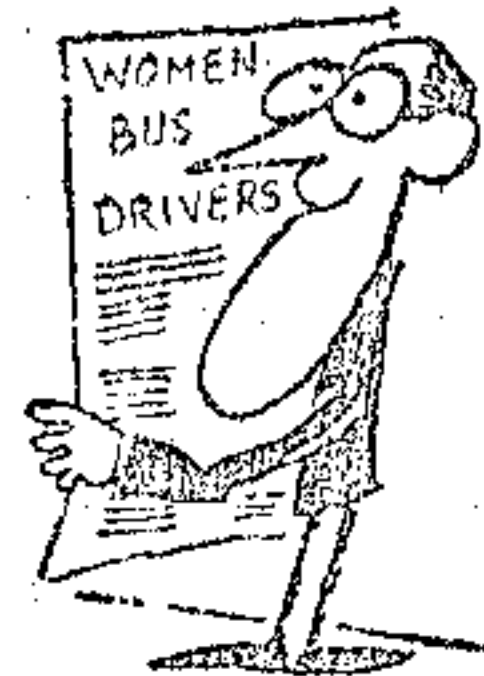
Burly Arthur Harcus, off-road racing champion feels it's all in the legs.

"I wouldn't mind," he mused.

"It would depend on whether they wore mini-skirts."

He reluctantly conceded that if the

THAT'S THE
TICKET!



drivers were properly trained "it might not be too bad if the buses are not too big. Medium-size buses would be best."

Hennie Kleynhans, of the Automobile Association, is worried about the possibility of a hijack.

"Fine if it relieves the shortage — as long as she doesn't shanghai the bus. It's happened.

"At least," he conceded, "it might even things up."

Most of the comments were related to the quality of training.

Mr Frank Atherton, executive director of the Institute of Advanced Motorists, was quite happy provided the drivers were fully trained.

Mr J M Curtin, principal of the ABC Driving School, agreed but qualified his thumbs up. "Men learn more quickly than women because women show more nervousness in their reactions."

Escom to double output in decade

55

D. Dispatch
27/11/82

JOHANNESBURG — The Electricity Supply Commission (Escom) is to double its power output over the next 10 years at a cost of R14 000 million.

The output of 19 000 megawatt would be increased to more than 38 000 megawatt.

The chairman of Escom, Mr Jan. Smith, said here yesterday that the demand for Escom power had increased by 8,8 per cent a year over the past 30 years, which was between two and four per cent higher than the growth rate. He did not expect the demand to drop significantly over the next decade. — SAPA.

55 C. Times 28/1/82

Is South Africa playing 'Now you see it, now you don't' with the N-bomb?

WHEN IT was disclosed last November that South Africa had beaten the 1978 American embargo on sales to it of enriched uranium there was instant speculation on the secret source of supply.

The state-controlled South African Broadcasting Corporation absolved France and the United States, the two outside countries principally involved in South Africa's nuclear-power programme.

The speculation, helped along by the occasional wink and a nudge from officialdom, focused first on China and then on Spain, which has a large stockpile of the fuel and is not yet a signatory of the Nuclear Non-Proliferation Treaty (NPT), a nuclear arms control agreement.

In fact, the source was a surprising one — Switzerland. And France and the United States were, in different ways, involved.

What happened was this: Kaiseraugst, AG, builder of a reactor near Basle, found its construction programme badly delayed by the continuing political and ecological argument in Switzerland over nuclear power.

Costly

As a result, it had on its hands a large and costly supply of low enriched uranium which it could not use.

The company looked for a buyer and before long one came along, a small New York concern which resold the fuel to the South African Electricity Supply Commission (Escom).

The South Africans bought the fuel because the American ban (imposed on all countries which refuse to sign the NPT) threatened them

DAVID ADAMSON of the Daily Telegraph unravels the mystery surrounding the source of South Africa's enriched uranium.

with a two-year gap between the completion of their first French-built reactor at Koeberg, near Cape Town, and the commissioning in 1985 of their own enrichment plant.

Now comes another surprising twist in the story.

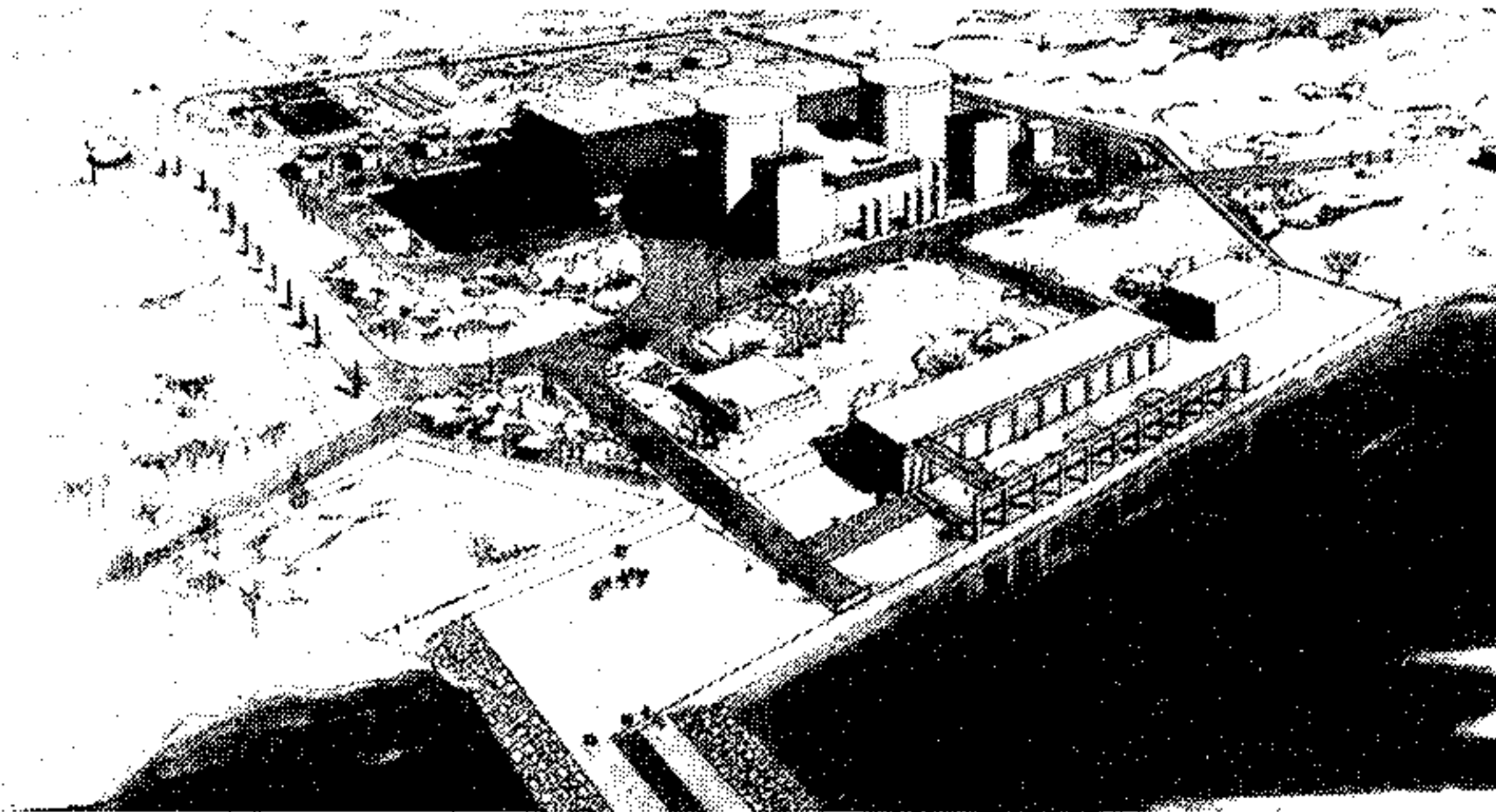
The fuel was in France

Africans cannot use the fuel to produce plutonium explosive unless they are prepared to flout agreements with the French and the IAEA.

Since the story has, after all, a happy ending of sorts, with a safety net spread beneath the Koe-

The only firm signs that South Africa has the will and the ability to produce nuclear weapons are its refusal to sign the NPT and a pilot enrichment plant which can produce sufficient quantities of weapons-grade uranium.

The ambiguous signs



An artist's impression of the Koeberg nuclear power station.

when it was sold and it has remained there, at the Eurodif enrichment plant near Avignon (Eurodif is a joint venture between France, Italy, Iran, Spain and Belgium).

The French will manufacture it there, turning it into rods for the Koeberg reactor, which is due to be loaded next year.

Safeguards

Once installed, the fuel will come under safeguards inspections administered by the International Atomic Energy Agency (IAEA), says Professor Gruemm, head of the Agency's Safeguards Department.

That means the South

berg fuel, why the secrecy?

The answer is that no one — particularly Switzerland, an NPT signatory state — wishes to be seen dealing in defiance of the American ban with an international pariah which has the capacity to produce nuclear bombs and may well have done so.

South Africa belongs to the phantom proliferation club, the little group of countries who reinforce their security with a game of nuclear "now you see it, now you don't".

Israel, Pakistan and India are the other members (although India is nowadays regarded by some as an overt nuclear weapon state). None has signed the NPT.

were apparent preparations for a test in the Kalahari in 1977 and the famous double flash spotted far out in the South Atlantic on September 22, 1980 by an American satellite.

The argument continues over whether the latter was a test, possibly in collaboration with Israel.

"The preponderancy of opinion is that it was a bomb," says Mr Domingo Siazon, the Philippines ambassador in Vienna and runner-up in last year's hotly contested election for a new director-general of the IAEA, whose inspectors are the policemen of the NPT.

And that is what matters, the preponderancy. South Africa is be-

lieved, at a time of extreme vulnerability in its domestic and international affairs, to have the bomb.

Phantom or not, it is a blackmail weapon, brandished not so much at its neighbours — since it is scarcely an anti-guerilla device — as at the United States and the West.

"Press us too hard, allow our survival to be threatened and we will take the bomb out of the closet."

If that happened the whole uneasy status quo created between the weapon states and the non-weapon states through the instrument of the NPT would be threatened.

Professor Gruemm sees it as an example of how the attempt to keep uranium enrichment under the control of the weapon states has failed. "The genie is out of the bottle. It can never go back."

Professor Gruemm's NPT inspectorate will increase from 135 to 150 this year. He thinks it would be better to have between 200 and 250.

An American think-tank, using different criteria from his, has estimated that to be a real guarantee against the diversion of nuclear fuels to military or criminal uses the IAEA needs 1 500 inspectors.

But in the end, as most admit, the safeguards system, whatever the size of the inspectorate, can provide only limited assurance.

Any signatory state is entitled to renounce the NPT by giving three months' notice. The real issue is military security. — Daily Telegraph, London.

• The South African Atomic Energy Board yesterday declined to comment on this article.

ON THURSDAY morning Dorothy Nightingale, 64, a member of the family which founded Zinkwazi Beach, an idyllic Natal north coast village, broke her habit of sleeping late to watch the sunrise instead.

"I thought I had better get all the beauty I could before it gets all mucked up," she said at her home which overlooks a lagoon and kilometres of unspoilt coastline.

Spread out on the dining room table in front of her was the cause for the departure from her usual morning routine: Press reports naming Zinkwazi Beach as a possible site for South Africa's second nuclear power station.

"The night I first saw these reports I couldn't sleep," she said, her lined face reflecting her concern for the future of the village which has become a rich man's holiday retreat.

She, like her grandfather, before her, Theunissen, before her, jealously guards the image of Zinkwazi Beach, a development and progress with a good deal of suspicion — a sentiment apparently shared by the local health committee which so far has managed to

By Rodney Jackson-Smith

keep out hotels and high-rise buildings.

"As far as I'm concerned, Zinkwazi Beach is priceless."

Mrs Nightingale is not alone in that assessment of the village 90 kilometres north of Durban.

A good proportion of the 365 plots comprising Zinkwazi Beach belong to up-country people, with a view to retiring there.

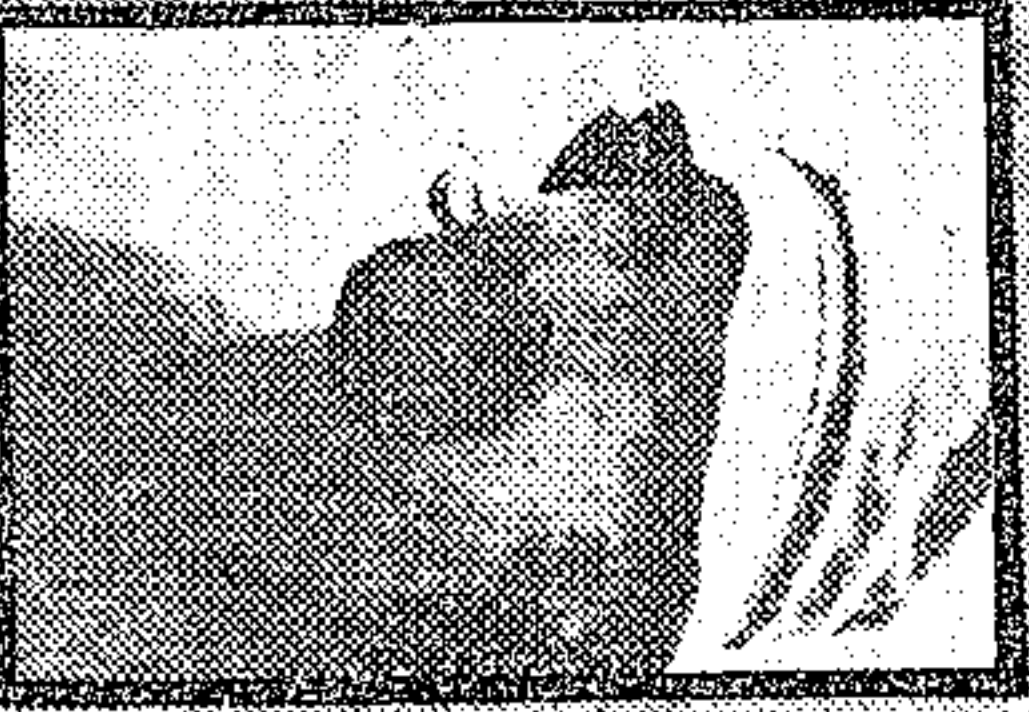
Many of these owners were also up early on Thursday to make quick telephone calls to the health committee offices for confirmation of press reports.

RUMOURS OF RUM

3/1/82
55
S. Swilane



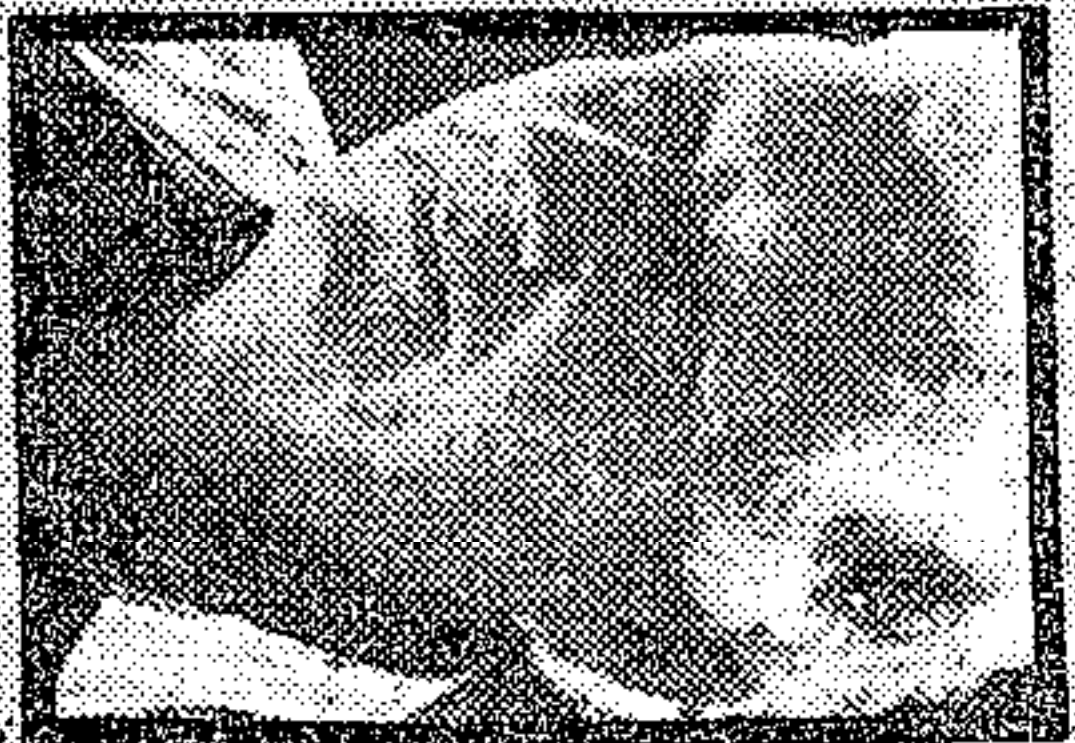
Ben van der Merwe . . . would sell up



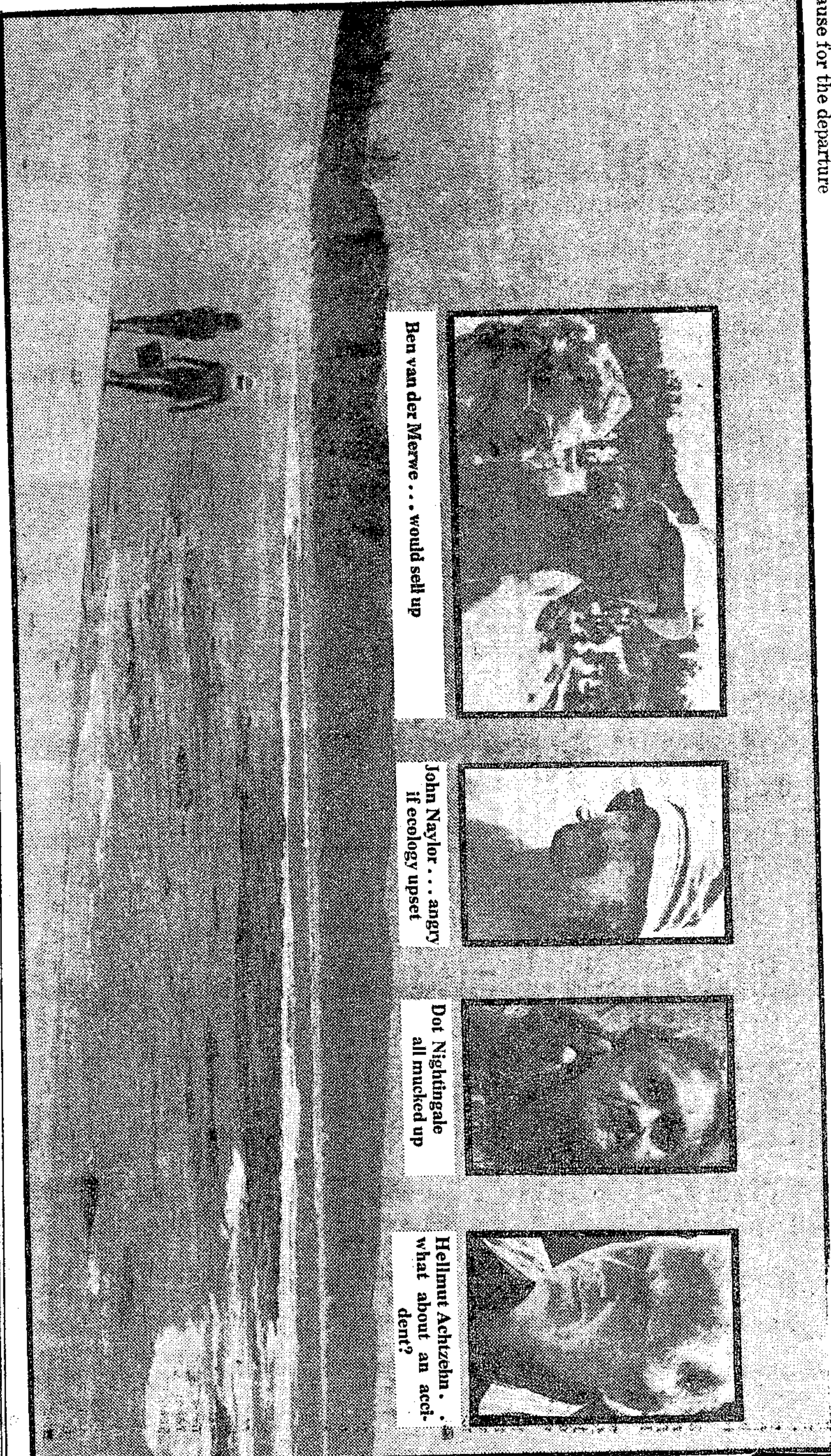
John Naylor . . . angry if ecology upset



Dot Nightingale all mucked up



Hellmut Achzelm . . . what about an accident?



'No nuke' is the reaction at Zinkwazi

Continued

Most, however, wanted their worst fears dispelled, to be told there was no truth in the speculation — it amounts to no more than that at this stage — that a Koeberg-style nuclear power station was on the cards for "their" village.

But health committee secretary Johanna Orwin was not in a position to allay any fears. She's been aware for five years of Escom's interest in that part of the world.

"Anybody who wants to take a vehicle on to the beach here has to have a permit. About five years ago I was approached by Escom for permits to do surveying on the beach north of us," she told the Tribune.

Whether Mrs Orwin knows any more about the nuclear power plant and the siting of it — speculation has it that it could be anywhere between Zinkwazi Beach and a 10 kilometre stretch of coastline northwards to the Tugela River mouth — she is not prepared to disclose.

"The telephone never stopped ringing since the first newspaper report. Everybody wanted to know all about it, but all I could say was 'no comment'," she said.

It appears that the only reason for the current speculation is that Escom carried out surveys in the area — Mrs Orwin admits at the time there was no talk of a nuclear power station — and a former Escom chairman saying only the Cape and Natal would ever have reactors as these had to be near the sea. Huge volumes of water are needed for cooling.

Mrs Orwin has no particularly strong feelings either way, but she would be upset if a nuclear plant in the

vicinity posed a threat to marine life.

"It all depends what they put up and where they put it. In America they've got these plants. That's progress isn't it?"

Ben van der Merwe, found strolling along the magnificent beaches at the village, has lived at Zinkwazi for almost 17 years and is very emphatic on the speculation. He's an anti-nuke man and he says so forcefully. "I'm telling you, if I had property here I would sell it right away. Who wants to live next to a nuclear reactor?"

"I don't own a house here — my company puts me up — and I'm soon retiring, so thank goodness I'll be able to go somewhere else."

Fishing — and not fission — remains the main preoccupation for John Naylor, a fitter from nearby Mandini who makes regular use of Zinkwazi Beach for his favourite pastime.

"As long as there are controls I have no objection, but if it starts affecting the ecology then I would be upset," he said.

Except for a couple of people in the area, few of those interviewed had any strong feelings about possible acci-

dents and consequences of leakages of radioactive material. It appeared that most were more concerned at how a power plant would affect — in the words of local caravan park owner Hellmut Achtzehn — their "upper-class village" and its air of contented sunny somnolence.

Mr Achtzehn is philosophical about any possible accidents at a nuclear power plant — even if it is to be built on his doorstep.

"I don't think we will be directly affected by a plant if it is built, of course, because it will more than likely be to the north.

"But if there is an accident then of course we all suffer."

This point has already been taken up by conservationists, pointing out that even Durban could be affected by a radioactive leakage — if the plant is situated near Zinkwazi and a strong north-easterly is blowing.

Naturally a number of towns and communities north of Durban would also be in the firing line, but opinion at Stanger, the largest town close to Zinkwazi Beach, evoked little reaction.

The message was clear: Out of sight, out of mind.

The hunt hots up

Soekor has never been closer to making a viable gas/oil strike off the SA coastline. Drilling results announced last week indicate that the FA field 90 km offshore of Mossel Bay could indeed be sitting on exploitable deposits.

Proven yield of the FA2 well is 1,58m m³ of gas and 1 200 barrels of oil/day under realistic production conditions.

However, for the well to be viable it would have to produce at this rate for 30 years. Based on additional drilling designed to establish reserves, there are high hopes that it will do so.

But with methanol one of the main end products, private sector companies like Anglo Vaal, Trans Natal and AECI are following progress with more than passing interest. Each has been looking at the idea of a methanol-from-coal process of its own. And a final decision to go ahead will clearly depend on the eventual Soekor results. At best methane yield would amount to half the current output of Sasol 2 or 3.

Soekor MD Dr Piet van Zijl says: "Results are by far the best and most promising that have been attained during the oil search so far." Soekor's oil search now spans 16 years at a total cost of roughly R300m.

Of the eight boreholes sunk to date, seven were completed in 1981. At the end of 1980 the FA2 well gave results of 1,58m m³ of gas per day containing methane, propane, butane et al. The bonus was 1 200 barrels of condensate light oil. The FA% drilled in February gave less than 10% of the gas with a yield of 120 barrels of oil.

The embargo slapped by Soekor on further disclosures of results last year was lifted a week ago when Van Zijl announced that four of the eight completed wells on FA structure each yielded from 0,28m-1,13m m³ of gas per day plus some light oil.

These rates, says Van Zijl, "are regarded in the industry as economic flows for a single production borehole." Two further boreholes gave gas flows of less than 0,08m m³/day. Two of the holes produced only water.

One or two more holes will be drilled on FA structure this year "for final calculations of reserves." At this stage provisional reserves of the structure are thought to be 0,01-0,011 trillion m³ of gas. Soekor is awaiting results of tests carried out on one well on a structure east of FA.

Says Van Zijl: "In spite of the fact that the calculated reserves are smaller than originally anticipated, present results are regarded as being of great value." If further discoveries should be made in the vicinity, he says, this could indicate "a

reserve that is big enough to sustain economic production."

While the flow rate of 0,34 m³ a day is regarded by the industry as an economic flow, reserves which would justify economic production, says Van Zijl, would have to amount to 5,64m m³/day or a total reserve of 0,06 trillion m³.

The light oil in these gas reserves would also be significant. Conservative calculations indicate an oil flow of about 4 000 barrels if the gas flow is 5,64m m³/day.

Van Zijl says Soekor will not participate in processing of gas/oil. "We would bring the gas ashore but have no intentions of taking part in production." Several companies are interested in buying the gas which is about 80% methane, while the rest

2 or 3 if used as the starting point for the Sasol process.)

There will be "great demand for the oil," stripped out of the gas stream, says Van Zijl. It is likely to find its way into coastal refineries for use as spiking for heavy imported crude before refining.

Off-shore oil exploration costs are obviously considerable. Drilling is running at R110 000-R120 000 a day. The new drills are being built at a cost of R70m-R80m each. Soekor is finalising long-term rentals at present.

Should viable reserves be established, off-shore construction costs are likely to be in the region of R1 billion. Costs involved in constructing a pipeline are about R1m/km. Today a platform would cost roughly R400m - R500m.

Van Zijl is not prepared to commit himself as to when these results are likely to be known or what the chances are of further successful strikes.

Soekor is looking at a number of satellite structures close to the FA structure. It's more than likely that some of the new holes will be drilled in this vicinity. The FM gathers that sedimentologists with a knowledge of the area are "pretty positive" about what can be expected of the drilling programme.



Soekor's Van Zijl ... assessing the reserves

is heavier fractions of hydrocarbon gas and gas condensate.

"Most likely outlets for the gas would be an ammonia/methanol plant or a Sasol type fuel production plant," says Van Zijl.

Sentrachem's decision not to go ahead with its R630m coal-based ammonia plant is likely to result in a substantial long-term shortfall of locally produced ammonia. There could be a big demand for Soekor gas to provide a much cheaper starting point for additional local ammonia capacity. (A 5,64m m³/day gas flow would give roughly half the fuel production capacity of a Sasol

Escom request refused by UK college

95

DDM
9/2/82

By BRUCE STEPHENSON

LONDON. — London's Imperial College recently turned down a request from South Africa's Electricity Supply Commission (Escom) for a special degree course in nuclear fuel technology for future high grade personnel at Koeberg power station.

But the Imperial College of Science and Technology, Britain's equivalent of America's Massachusetts Institute of Technology (MIT), denied the refusal was an anti-apartheid move by the board of governors.

Isolate

But British anti-apartheid campaigners, and in particular the communist Morning Star newspaper, claimed the refusal was a "victory in the worldwide campaign to isolate South Africa's nuclear development capability".

The college's Press officer, Mr Martin Butcher, said this week the board of governors' refusal to grant Escom's request for a degree course in nuclear fuel technology had "nothing to do with the board's principle that admission to the college must be determined on academic grounds only.

"The request was refused because we do not put on a degree course for one country, body or organisation unless we think there will be general student demand for it."

The board made its statement on the principle for admission a year ago.

"Escom advertised in South Africa a course that was being run here, a master's course in nuclear reactor science and engineering, without our authority. There was the suggestion that students would be automatically accepted and the college protested in writing to Escom," said Mr Butcher.

An Escom spokesman said he was not able to comment.

Higher tariffs ⁵⁵ cripple country towns ^{E. Port 4/2/82}

THE vastly higher electricity tariffs being paid to Escom are crippling several Eastern Cape country municipalities and they want to discuss the matter urgently with the nation's major power supplier.

The Town Clerk of Venterstad, Mr Albie Venter, said: "Most residents are pensioners and they can't afford to pay. We are considering taking up the matter with Escom."

Small towns such as Venterstad had been hardest hit by last year's increases. They now paid about 6c a unit, with a starting fee of between R8 and R12.

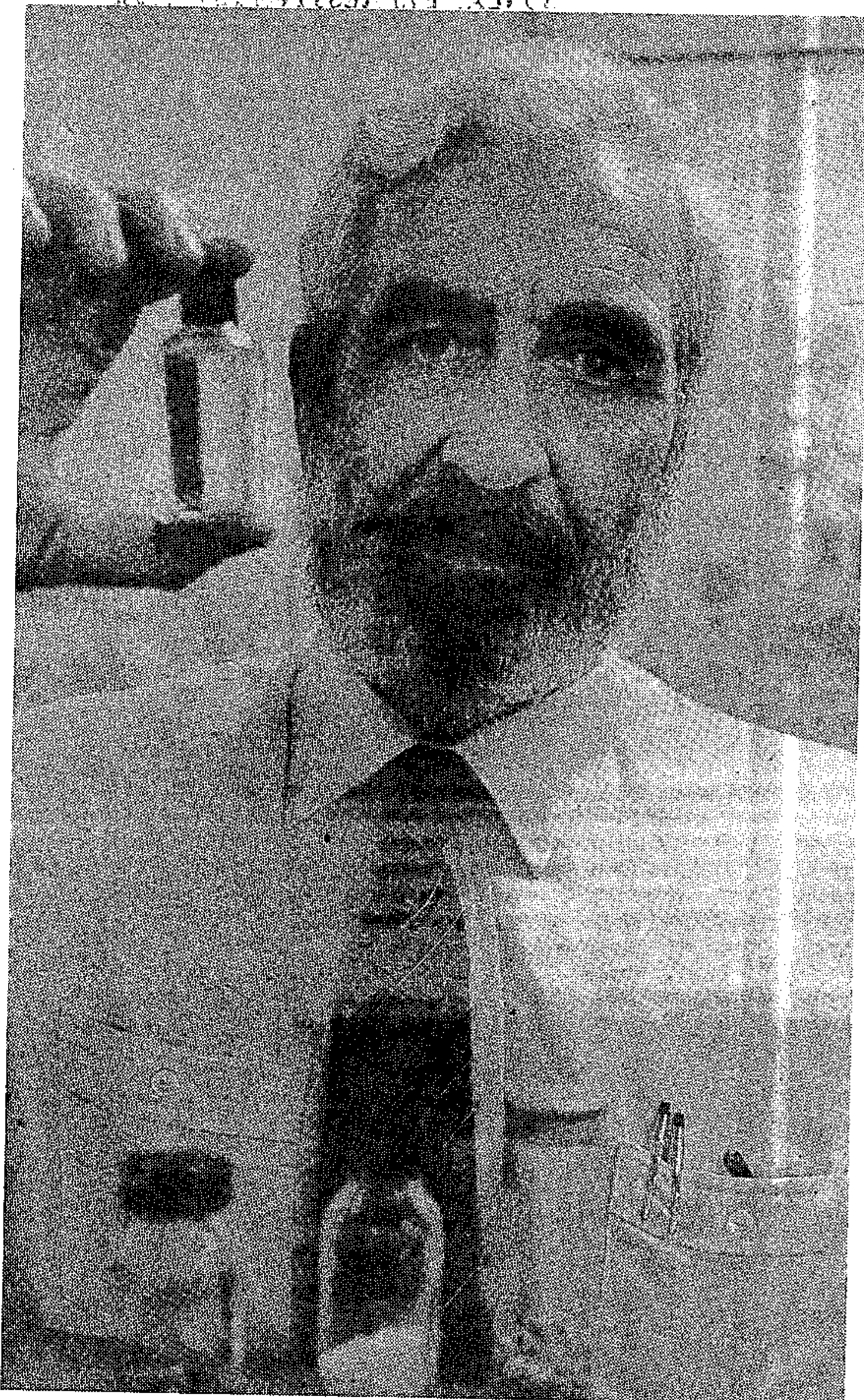
In Burgersdorp, which the Town Clerk, Mr J G van Rooyen, said had the cheapest electricity rates in the area, people are reeling under electricity tariffs which are up almost 90% on the 1980 level.

The last increase, a hike of almost 60%, was introduced last month.

"It's not helping anybody, but we have to get the income to pay Escom," said Mr Van Rooyen.

"We sell the first 300 units at 4,8c a unit and anything over that at 2,1c a unit."

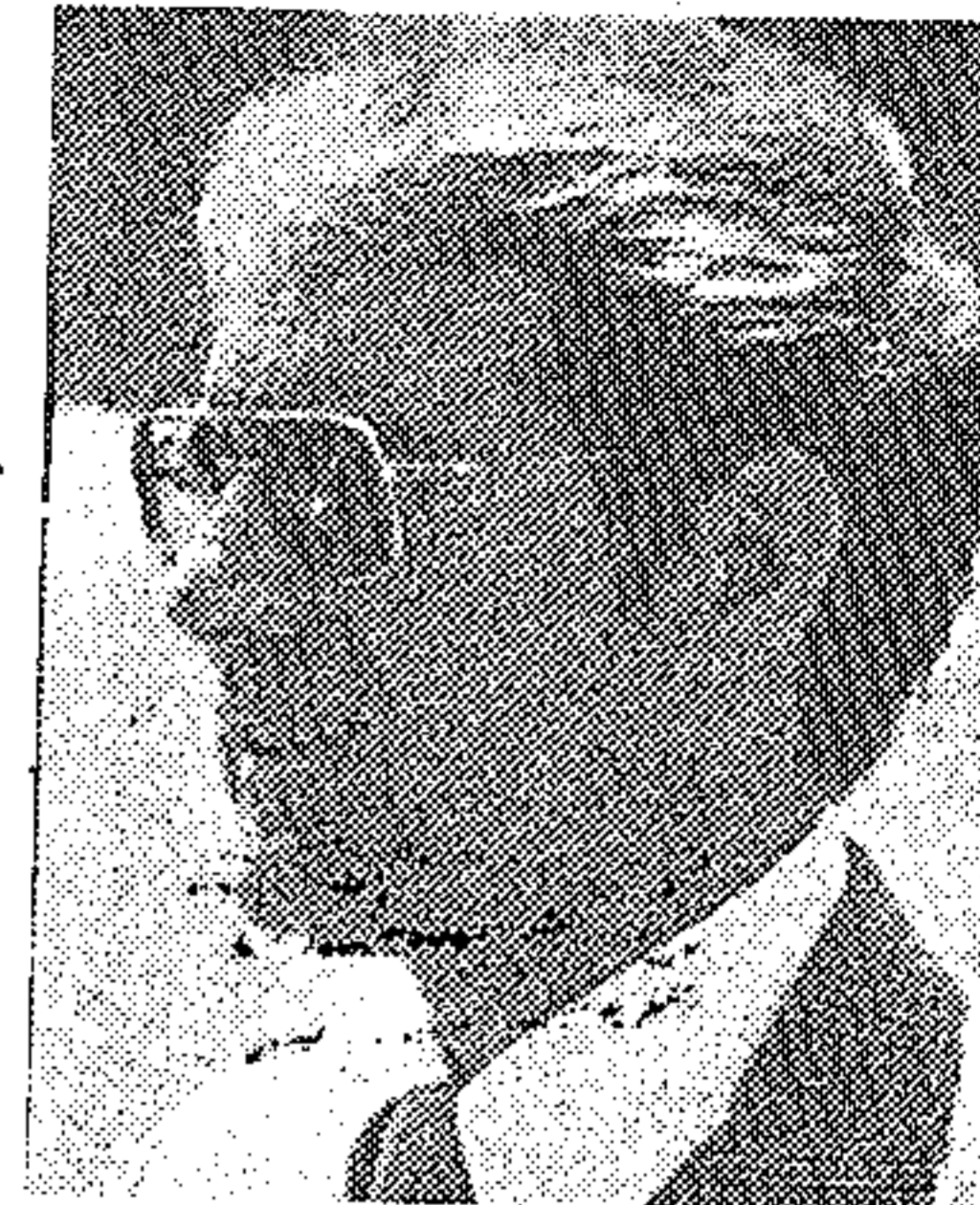
In Port Elizabeth, tariffs were increased by 6% at the beginning of this year. The municipality has managed to absorb much of the cost because electricity from the municipal power station at Swartkops is cheaper than the power bought from the national grid.



● Marketing manager Malcolm Anderson displaying a small quantity of Jojoba oil.

Pictures: DENIS FARRELL

Jojoba oil scheme is 'high-risk', experts warn



● Mr Buttle: the Jojoba man

SOUTH AFRICANS are being offered an investment described as the opportunity of a lifetime — a piece of ground the size of a cricket pitch plus 47 plants for as little as R30 a month for just under three years.

The total cost would be a little over R1 300 — including 9% interest on the decreasing balance payable — and, according to the company offering the investment, the project could save the sperm-whale from extinction.

However, the Jojoba bean plantation in the Cape, offered to the public as a "unique investment", has been described as high-risk and "extremely dangerous" by investment experts.

The company running the plantation — a 500ha farm called Lange Fonteyn in the Riversdale, Cape, district — is called Duineveld Jojoba (Pty) Ltd.

Report by



DEBRA CLEVELAND

According to Mr Rob Buttle, a salesman from Agdel (Pty) Ltd — the company marketing the scheme — the Jojoba is a shrub with a life span of over 100 years, the beans of which yield an oil that is the only known alternative to that from sperm whales.

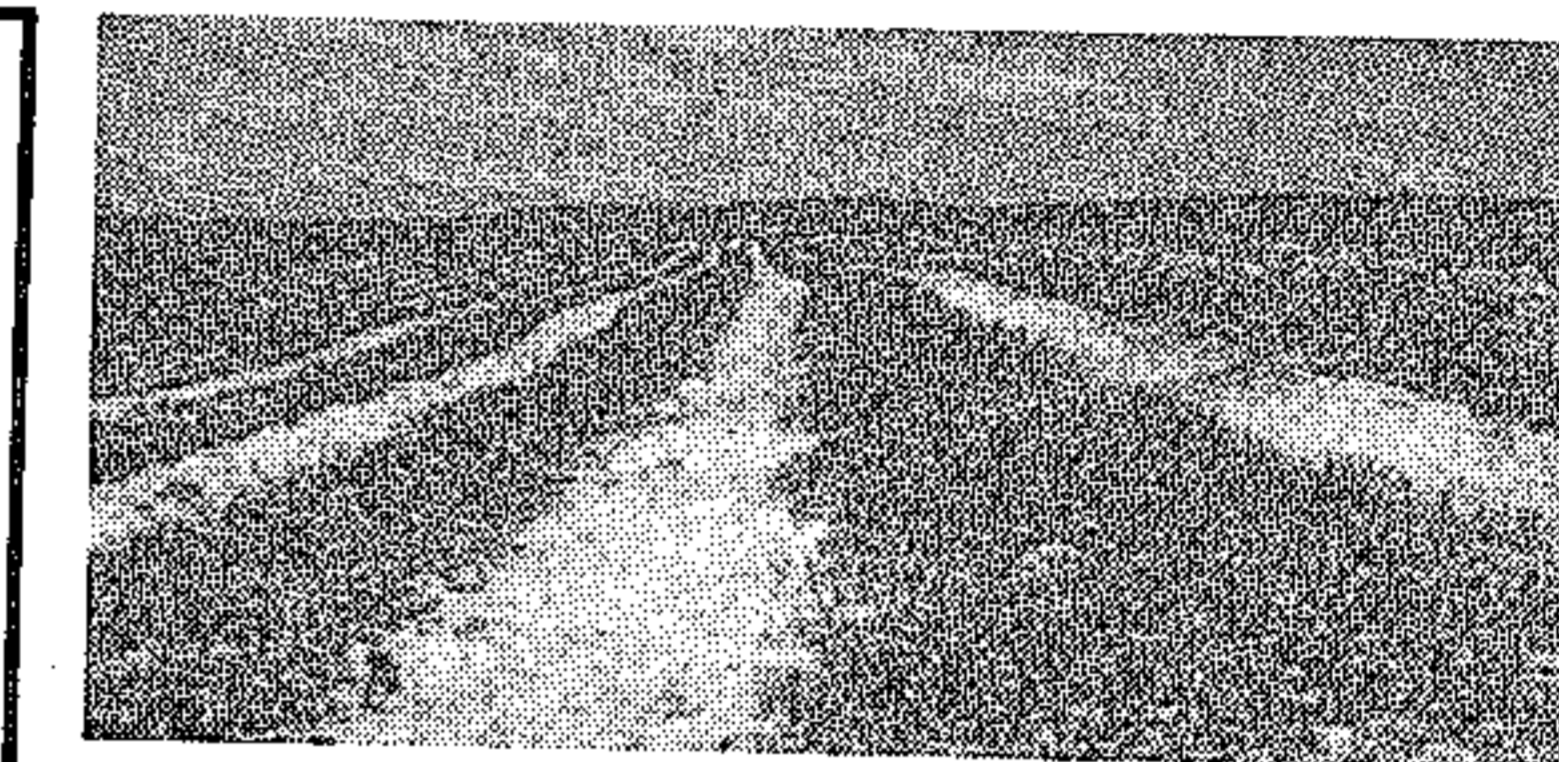
He also said the oil could be extensively used in South Africa for cosmetic and industrial lubrication uses.

Mr Buttle said that since the oil could also be used for lubrication in motor cars, his company had sent a sample to the Automobile Association in Johannesburg to be tested.

The technical director of the AA in Johannesburg, Mr Fred Bothma, denied that he had received a sample of the oil and said he had not heard of the oil being used in South Africa for motor lubrication.

The marketing manager of Agdel, Mr Malcolm Anderson, later said the company had not yet sent in oil samples to the AA, but had intended doing so.

Mr Buttle told me that lots of ground 250m², which contained 47 bushes "went for" R1 300, but later said that a lot more correctly was a



● A view of the Jojoba plantation in the Riversdale, Cape, district. The strips of weeds are windbreaks, Mr Anderson said.

piece of ground containing 47 bushes and not necessarily 250m² in size.

He said 100ha of Jojoba had been planted in 1980 and that the company had engaged the services of a University of Stellenbosch agriculture professor as a consultant.

The professor, who refuses to be named, denied being a permanent consultant of the Duineveld Jojoba company.

He said he had been approached to study the possibility of growth on the farm, but refused to comment on his findings.

Mr Anderson said that, as far as he knew, the professor had definitely been hired as a consultant and was in fact starting with the company during the next few months.

The Sunday Express also contacted two major South African oil companies about the scheme.

A spokesman for Trek said he had never heard of the oil being used in South Africa, and a Shell spokesman said he had been approached two years ago to invest in the Jojoba plantation, but that his company had refused to do so.

According to a consumer

law expert, any investment in the company would be extremely dangerous as the investor would not be buying shares in the company.

This would mean an investor had no say in the running of the company and would not be able to sell his investment, legally, without the consent of the company.

In any case, the expert said, it would be difficult to resell without the original selling expertise and because there was no existing market for the commodity.

Mr Buttle said he would regard the scheme as a safe investment, because the current price of crude oil was so high.

Mr Anderson said that demand for Jojoba oil would always exceed supply, and that if the yield from the plantation could not be marketed in this country it would be easily disposed of overseas.

Mr Buttle refused to be specific about whether the company would sell only to a limited number of investors, since the farm is only 500ha.

Mr Anderson later told me there were in fact limited sales because the farm was a limited size.

Mr Buttle said each lot

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Mr Buttle said each lot was numbered and the company could not oversell as each lot was controlled by their auditors. He did, however, say that investors would not be able to look at their specific lots on the plantation, as all were "communally" owned.

Mr Anderson again corrected his salesman by saying that each lot was numbered and that any investor would in fact be able to look at "his" lot.

When I asked Mr Buttle if an investment would be guaranteed, he said: "Guarantee is a bad word. The market is no problem at all. In terms of the current oil price, you and the company must make a profit."

Mr Anderson said that an investment could not be guaranteed, although, he said, returns would be guaranteed.

"As a matter of fact, we even have a waiting list now of very interested investors."

Mr Buttle added that there were perks to the whole scheme — a caravan park at the sea-edge of the farm, where the company intended building chalets where investors could holiday free of charge.

SECTION C.

55

Hansard Q. Col. 58-59

Bishop Lavis: electricity

322

10/2/82

*24. Mr. C. W. EGLIN asked the Minister of Community Development:

- (1) Whether the loan for the supply of electricity to Bishop Lavis, Cape Town, as referred to in his reply to Question No. 14 on 18 September, 1981, has been paid; if not, (a) why not and (b) when is it expected to be paid; if so,

ternational Air Transport Association?

†The MINISTER OF TRANSPORT AFFAIRS:

- (1) Yes.
 - (a) (i) Services such as SAAFARI visual display units and related travel;
 - (ii) improvement in support of South African Airways' services.
- (b) The Management of the South African Transport Services.
- (2) Yes.
 - (a) At least 40 per cent.
 - (b) At least 50 per cent.
- (3) Yes.
- (4) There are no regulations of the International Air Transport Association (IATA) governing the matter in question.

I shall gladly let the hon. member, who is an old friend of mine, travel in this new aircraft one day, if he feels like it.

Homestead 12/2/82
Q. 61-92
Nyanga: raid on squatters

*17. Mr. S. S. VAN DER MERWE asked the Minister of Police:

- (1) Whether the Police were involved in a raid on squatters at Nyanga on 26 January 1982; if so, (a) how many policemen were involved, (b) at whose request were the Police called in and (c) who was in charge of this raid;
- (2) whether any dogs were used in such raid; if so, how many;

(3) whether the Police opened fire on the squatters during such raid; if so, (a) why, (b) how many people were shot and (c) how long the raid lasted; open fire?

†THE MINISTER OF POLICE (and the Minister of Police):

- (1) Yes to provide protection to officials of the Western Cape Administration Board and its members and staff.
- (2) No.
- (3) Yes.
 - (a) In self defence after having been attacked.
 - (b) The Police have shot at one person who was armed.
 - (c) The number was 100. They acted in self defence.

*Mr. S. S. VAN DER MERWE: Mr. Speaker, asking out of courtesy of the Minister's reply, does he know how many squatters were involved in this particular raid of the Police? [Interjections.]

†THE MINISTER: Mr. Speaker, I think that is information which I am unable to give within the province of his own constituency, but if he insists on getting it, I suggest that he place his question on the Question Paper.

Homestead 12/2/82
Safair reaction
12/2/82
*18. Mr. D. J. N. MALCOLMSON asked the Minister of Mineral and Energy Affairs:

Although all members of staff will endeavour to assist students, you are encouraged to take your problems to the person/committee most directly concerned:

Problem: Related to specific course/reading/essay

Your tutor or lecturer

Consultant: Relevant Course Co-ordinator or Class Representative

Related to courses in general and/or their structure

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Petrol price leap looms

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~~25/4~~

16/2/82

By GERALD REILLY

THE price of petrol may rise by between six and eight cents a litre from April 1, according to motor industry sources.

Economists pointed out yesterday that the fuel price hike, together with the expected increase in Railway rates and fares of about 15% would be a major factor in maintaining the country's inflation rate at a high level for the rest of the year.

One motor industry source said the Minister of Mineral and Energy Affairs, Mr F W de Klerk, would have no alternative but to adjust the price.

When he announced the 4.6 cents a litre increase in November, Mr De Klerk said at the then rand-dollar exchange rate, it was within the power of the fuel equalisation fund to delay another price hike until the end of March.

Exercises 5.2.3

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to prevent lead lea diminish as the pot

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The results of the In retrospect of the

We conducted exper of the process.

Atomic Absorption There are many pot

hike until the end of March.

3 are from the Communi- cation Studies

tion of the pottery is to glaze it

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and should, also have been performed.

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an be used to detect lead. We chose

an be simulated in the laboratory.

lead glaze. Consideration was given to the methods used in cooking and to

The pottery which is produced in Lourenco Marques was suspected of having a

in the blood could be disastrous.

tetraethyl lead in petroleum, any extra increase in the concentration of lead

of lead in blood is already quite high, mainly because of the presence of

can poison a man at comparatively low concentrations. The concentration

known for some time. This is because lead is such a dangerous poison and

together with the fact that the leaching lead may be dangerous has been

Lead will not leach out unless a complexing agent is present. This fact,

together with the fact that the leaching lead may be dangerous has been

poison the contents, if they are food, this is a very large disadvantage.

disadvantage in using a lead glaze is that the lead may leach out and

obtained from using a lead glaze are quite large, however the largest

discussing on the compositions of glazes. The advantages that can be

We start the introduction by discussing glazes in general, leading to a

SYNOPSIS

THE LEACHING OF LEAD FROM CERAMIC GLAZES
 which is the synopsis of a student report entitled:
 Evaluate the effectiveness of the following passage,

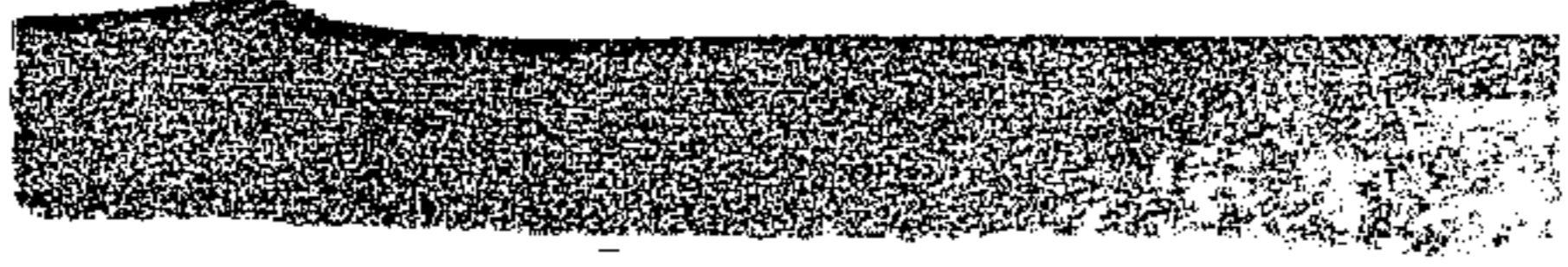
5.2.3

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55 *Hansard Q. Col. 117*
Nuclear Non-Proliferation Treaty
17/2/82

*8. Mr. D. J. N. MALCOMESS asked the
Minister of Foreign Affairs and Information:

- (1) Whether any consideration is being given to South Africa's signing the Nuclear Non-Proliferation Treaty; if not, why not; if so,



of days leave for which payment is effected at retirement, death, etc.

Handson Q. 6/125-126
 Nuclear power installation 126
 17/2/82

*24. Mr. R. B. MILLER asked the Minister of Mineral and Energy Affairs:

Whether the coast of Natal north of Durban has been (a) considered and (b) investigated as a possible site for a nuclear power installation?

†The MINISTER OF MINERAL AND ENERGY AFFAIRS:

(a) and (b) The coast of Natal north of Durban was investigated for possible nuclear power station sites during a preliminary investigation for potentially suitable sites along the South African coast prior to 1976.

In explanation I would like to add that no additional nuclear power station is presently under consideration; however, based on Escom's load forecast, the construction of other nuclear power stations can not be excluded. Prior to deciding on a further nuclear power station all relevant aspects will be thoroughly investigated. Only when it has been decided that a further nuclear power station is justified, an intensive investigation for a suitable site will be launched.

Nuclear power plant

*25. Mr. R. B. MILLER asked the Minister of Mineral and Energy Affairs:

Whether a decision has been taken on the possible siting of a nuclear power plant in the Province of Natal; if so, what is the nature of such decision; if not, when can a decision in this regard be expected?

The MINISTER OF MINERAL AND ENERGY AFFAIRS:

No. The required information is reflected in the reply to the previous question of the hon. member.

Koeberg nuclear plant

*26. Mr. R. B. MILLER asked the Minister of Mineral and Energy Affairs:

Whether any extra precautionary measures have been built into the Koeberg nuclear plant as a result of crises recently experienced at nuclear installations in other parts of the world; if so, (a) what is the nature of such measures and (b) what extra cost have they entailed?

†The MINISTER OF MINERAL AND ENERGY AFFAIRS:

Yes.

(a) Occurrences at nuclear power stations around the world are continuously monitored and studied and recommendations applicable to Koeberg are incorporated.

The measures implemented concern the refinement of emergency procedures and are aimed at the extension of the technical support centre and to expedite the flow of information from the operations centre within the power station to outside control points. Minor changes to equipment were also effected.

(b) Nearly R2 million.

Natal Provincial Division of the Supreme Court's trial

Handson Q. 6/126-127 17/2/82
 *27. Mr. R. A. F. SWART asked the Minister of Justice:

(1) Whether an appeal against a sentence imposed in a lower court by a certain person, whose name has been furnished to the Minister's Department for the purposes of his reply, to the Natal Provincial Division of the Supreme Court has been (a) lodged and (b) heard; if so, (i) when in each case, (ii) what were the charges against the accused in the lower court and (iii) what was the sentence imposed by such court;

(2) whether the accused was released on

243
55
25/2/82
Sowetan

Getting ready for the great switch-on

By MZIKAYISE EDOM

ELECTRICITY will be switched on in Daveyton extension homes from the end of next month — and this is definite.

This was announced yesterday by Mr Tom Boya, chairman of the Daveyton Community Council, who said the main switch-on was only supposed to have been ready on June 1, but they have managed to do it three months before the scheduled time.

Daveyton Extension, also known as "Pumla Mqashi", has 308 houses and was built three years ago. It was the only section in Daveyton which did not have electricity.

Mr Boya said: "The electrifying of Pumla Mqashi is part of our R13-million master plan which we hope to complete some time in 1984. Part of the master plan includes the reinforcement of our present electricity system and electrifying the 50 new



BOYA: Ahead of time.

houses in the township.

He appealed to the community not to damage the new sub-stations, because repairing them was costing the council a lot of money and holding back progress.

Residents welcomed Mr Boya's announcement. They said the installation of electricity in their area was a thing which was supposed to be done before they occupied the houses some three years back.

"Mr Boya's announcement is good news, but I am not excited at all because it means that we are going to pay more in future now that we are going to use electricity," one resident said.

CPD

55

Japan does it better

By Sue Cameron
The Europeans are doing it behind closed doors. Sometimes half-heartedly. Always fearfully. Occasionally wondering if the competition laws will find them out.

The Americans are doing it openly. Often speedily. Always legally. Looking as if they may make a possible job of it.

But the Japanese are doing it with MITI—their Ministry of International Trade and Industry. Thoroughly. Ruthlessly. Probably superbly. Ever determined that the

sun shall not set on their petrochemical industry.

Never have the world's traditional petrochemical producers been more aware of the urgent need to restructure their industry.

The recession has focused a glaring spotlight on the chronic, universal problems of overcapacity, of weak prices and of too many companies competing in part. Rates were shrunk dramatically.

The Japanese, under the aegis of MITI, are taking concerted, national action, US companies, with a weather

eye on the Federal Trade Commission, are acting independently to reduce planned investment and cut back production — as opposed to cutting product prices. And the Europeans, with the EEC competition laws very much in mind are furiously engaged in bilateral horse-trading.

At present, the signs are that the Japanese will be the most successful at streamlining themselves — and the Europeans least so.

Yet the last few years have been just as disastrous for Japanese petrochemicals and plastics producers as for

their competitors in the West — and for much the same reasons.

Japan's petrochemical industry — nurtured by the government with special subsidies and tax concessions — grew rapidly until the early 1970s. Between 1965 and 1970 Japan's output of ethylene — used in the manufacture of a whole range of products from plastics to solvents — increased by some 30 percent a year.

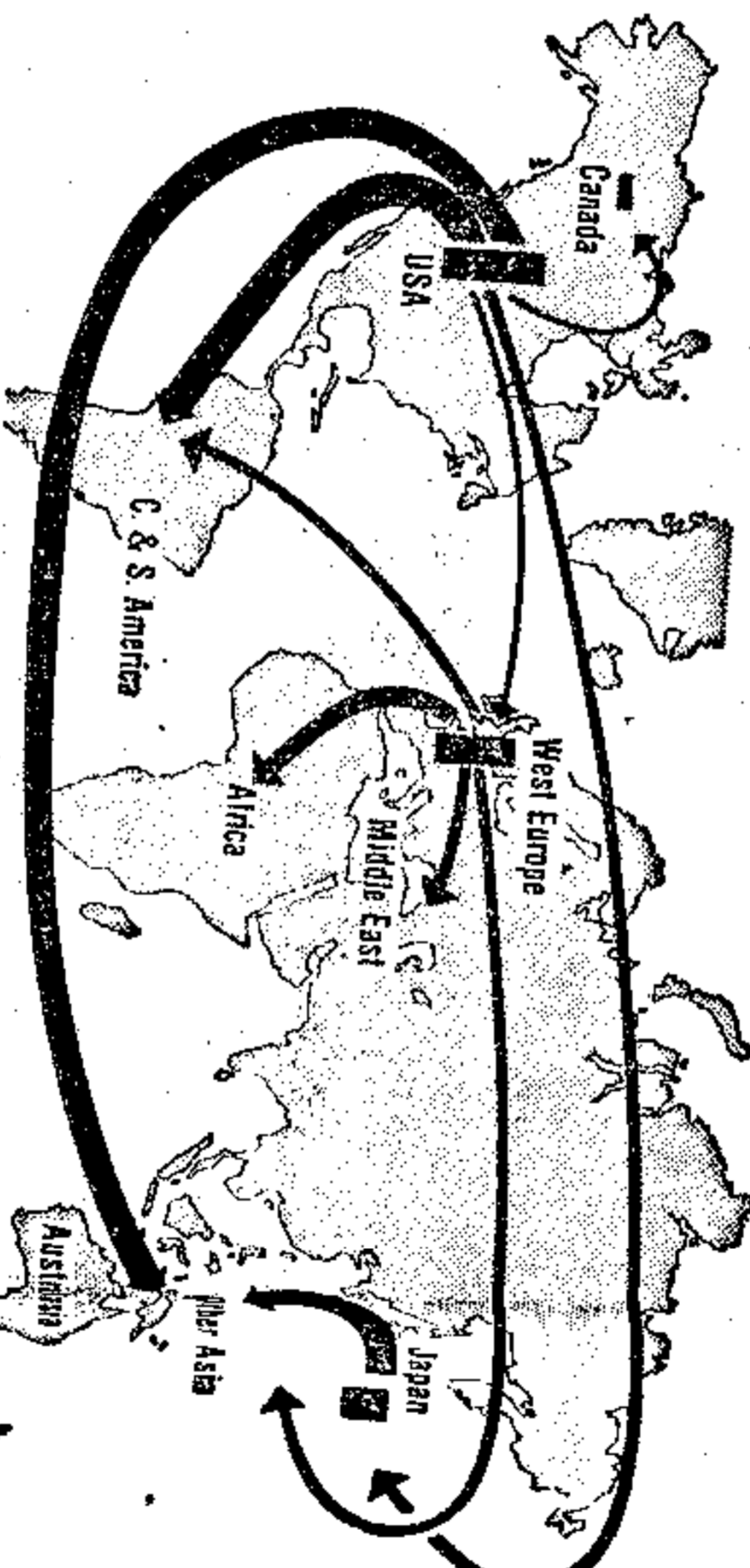
Japan has no fewer than 12 ethylene producers, 17 manufacturers of PVC plastic (polyvinyl chloride) and at least 10 makers

of LDPE plastic (low density polyethylene).

The pattern in Western Europe has been much the same. Demand for fibres and plastics — both made from petrochemicals — grew at a rough average of 25 percent a year in the 1950s, at 15 percent in the 1960s and at a still healthy 10 percent a year during the early part of the 1970s.

Investment boomed and by last year Western Europe had an effective ethylene capacity of some 15 million tons a year while the figure for LDPE plastic was

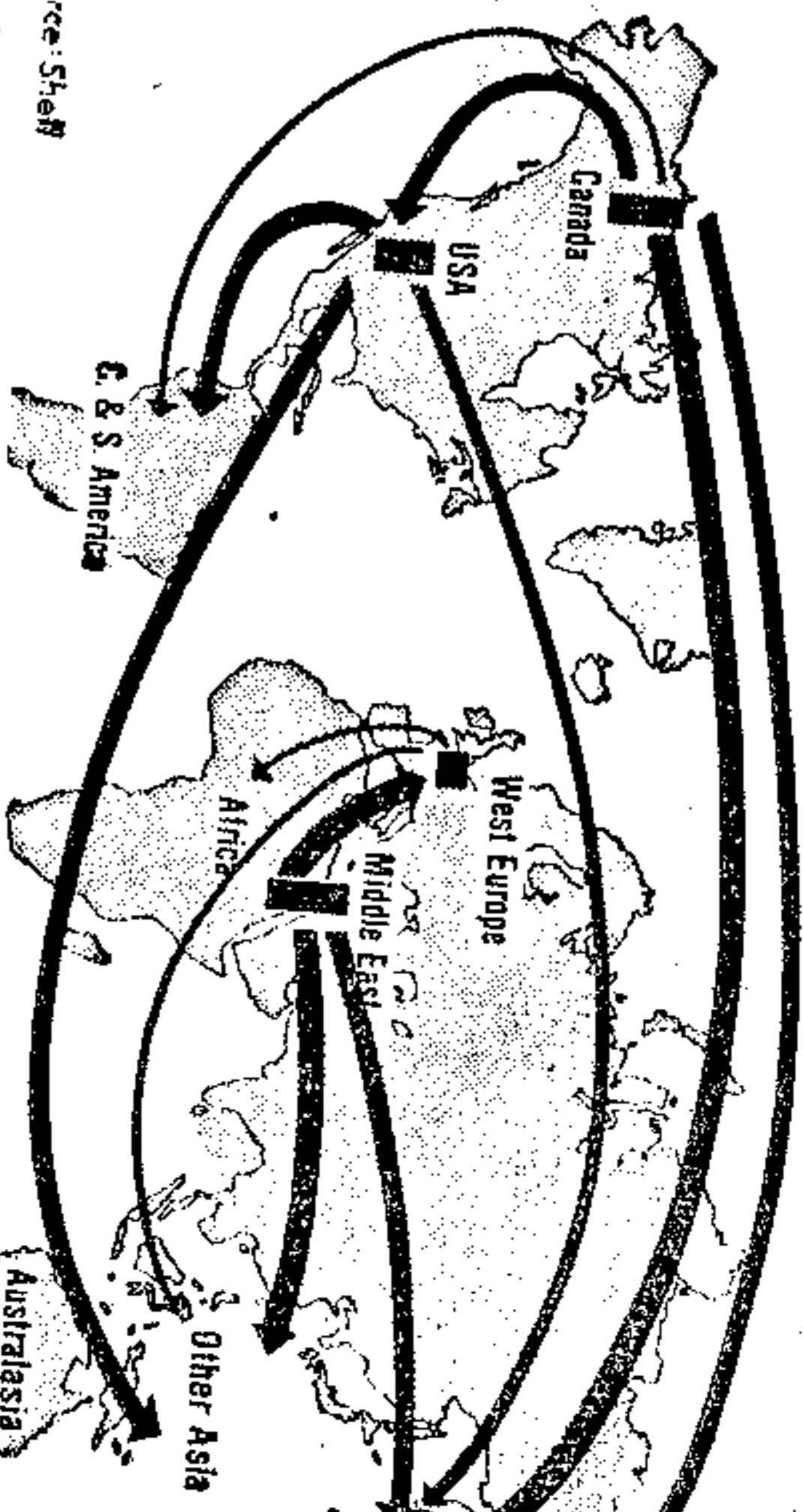
1978



Predictions are that between 1978 and 1990 Western Europe will go from exporting 0.1 million tons; US exports will fall from 0.9 million tons; and Japan will go from exporting 0.7 million tons to importing 1 million tons; a year exporter.

5.4 million tons a year. Today the region has 30 ethylene producers, 25 PVC manufacturers, and 23 LDPE. But between the balmy days of the

1990



Europe and from 91 percent to 68 percent in Japan last year; product prices have weakened and the West European plastics industry is currently thought to be losing around R160 million a month; and the cost of oil-based raw materials, such as naphtha, has soared.

The net result is that in both Japan

and Europe many producers are slugging against a ground of serious overcapacity and eroded profit margins.

...it now
them are loom-
chirpier than they
have for months.
But that is simply
because they see
themselves emerg-
ing from the reces-
sion. Forecasts vary
considerably, but
there seems to be a
consensus view that
petrochemicals and
plastics worldwide
will grow at be-
tween 3 percent and
4 percent a year —
starting in the
second half of 1982.

What is more,
there have already
been some quite re-
spectable reductions
in capacity. During
the last few months
of 1981, for exam-
ple, three companies
— the Italian-based
Montedison, the
UK-based Imperial
Chemical Industries
and the German-
based BASF — be-
tween them lopped
10 percent of West
Europe's effective
LDPE capacity.

Some industry ex-
perts believe the
true cuts in Europe's
ethylene and poly-
ethylene plastic ca-
pacity so far have
been as high as 15
percent or even 20
percent. They point
out that a good
number of compa-
nies have been quiet-
ly shutting plants
on a supposedly
"temporary" basis
— but without ever
intending to open
them again.

Be that as it may,
the fundamental
problems remain.
An annual growth
rate of 3 to 4
percent is not very
high compared with
the 10 to 15 percent
increases of a de-
cade ago. And the
Shell international
group of chemical
companies predicts
that by 1990 West
European ethylene
capacity will be of
the order of 17 mil-
lion tons a year —
as against an annual
consumption of just
over 13 million tons.

This is why secret
discussions are now
going on between
various sets of Eu-
ropean chemical
companies who
think they may be
able to do deals on
the exchange of pro-
duct portfolios. The
principle is: "I'll
pull out of product
area X, close my
plants and leave
you a clearer field
if you'll do the
same for me in pro-
duct area Y."

There is, of
course, one simple
and obvious solu-
tion to the problems
of the Europeans.
They could ask the
EEC Commission to
step in and help
them restructure
their industry.

But the Commis-
sion's handling of
anti-dumping cases
against US produ-
cers last year did
not exactly inspire
confidence among
Europe's petrochem-
ical producers. Still
less were they im-
pressed with the
part played by Brus-
sels bureaucrats in
the rationalisation
of the European
fibres industry.

Speed is the es-
sence of the petro-
chemical industries
of the US, Japan and
Europe. The oil and
gas-rich nations of
the world are develo-
ping petrochemical
industries of their
own and they are
moving fast. — Fi-
nancial Times, Lon-
don.

Enyati secrets unveiled

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THE parties involved in the formation of Enyati Resources, the unique multi-million Triton group company shortly to be listed on the Johannesburg Stock Exchange, played a cloak and dagger game ranging from Mauritius to Houston in the US.

While Triton's Laurence Goldberg was tying up a \$30-million deal with Eaton Industries, an independent Houston oil service company, an intricate share operation was conducted behind the scenes over a period of three months on the JSE.

The sponsoring brokers for the Triton group's Enyati Resources directed its dealers in November last year to quietly pick up parcels of Barlows shares which were needed in the Triton group's takeover of Enyati Colliery.

The shares formed part of the deal in which Enyati Colliery was acquired by Triton and Triton Energy Holdings, to be turned into Enyati Resources, the first company to give South Africans a direct investment in US oil and gas exploration.

Most of Enyati's shareholders were Mauritians and in consideration for agreeing to the proposal that Enyati Resources acquire the 24.2% of New Bernica Coke Company not already owned by Enyati Colliery, they were given the option of taking 800c a share cash or 800c payable in Barlows shares.

Mauritian shareholders enthusiastically plumped for the deal after sitting for years on a low-priced and slim-yielding share. But they

By ELIZABETH ROUSE

surprised Triton by opting more for Barlows shares rather than taking rands.

Triton's first estimate was that about 200 000 Barlows would be required, but when individual shareholders were approached by Triton's merchant bank representatives in Mauritius, it soon became clear that substantially more shares would be needed.

The final parcel of shares was picked up this week without anyone the wiser. And the market never twitched, although industrials were firm and active over most of the buying operation period.

Enyati comes to the market at a discount — the company's cash and shares are worth R11 a share against the R8 paid.

The acquisition of a 50.1% stake in Eaton Industries for

\$6.2-million has its speculative aspect in that oil strikes cannot be guaranteed (although prospecting will be in known oil-rich areas). However, as an oil service company, Eaton has guaranteed profits.

Enyati's \$30-million investment will be matched by that of an associate in Europe (name not disclosed) and more funds will be raised from the US public. By US standards Eaton is already a significant force in the independent oil service field.

If it strikes oil on its own account South Africa will benefit in that the US oil can be exchanged through other sources. Mr Goldberg's ambition is to see this oil refined in South Africa, whose sophisticated refineries will become increasingly underemployed the larger Sasol becomes.

28/2/82

S. Times

282

55

217

Dec 31:

01, Jan 1:

Premiums Tr (2)

Jan 31:

Jan 2:

Jan 2:

Jan 2:

04, Jan 1:

Years 02 a

Dec 31:

01, Jan 1:

Premiums Treated as Business Expense (1)

SOLUTION TO: Q15

A cut-out to end the black-out

55
Law
11/2/82

A five-year plan to equip all Johannesburg household geysers with radio-controlled cut-out switches will enable the city engineer's department to reduce power loads during peak periods, saving the city up to R4-million a year and reducing the risk of power black-outs.

So far, 10 000 geysers have been fitted with the control device and another 90 000 switches will be installed over the next three years. The total cost is estimated at R10 million.

The city electrical engineer, Mr Wessel Barnard said when the system was complete his department would be able to reduce the peak power load from 1 200 Mw to 1 100 Mw. This will be specially useful during emergencies and in winter, when peak loads cause repeated power breaks.

He assured homeowners that the department would be able to switch off geysers for up to an hour without loss of hot water. We will be able to distribute power loads more evenly across the city.

He said the ability to reduce peak loads would help the department to keep charges down. Installation is free.

Technicians installing the switches have been issued with identification documents to reassure homeowners who are apprehensive about letting them in.

If you were referring to a work immediately preceding this reference you could use "Ibid" - meaning in the same place - but it saves very little space and can sometimes cause confusion. Another method is to write "Litten, op.cit., p.90". One References. References. written by the immediately This occurs Example of In the unit above would References, 1. Barry Cor New York: 2. Trevor Le duction t Academic 3. Richard E New York: II, 251-5 4. Raymond F 2nd ed., 5. Joan C. B Teaching D.C.: Ce pp.3-7. 6. Georg Bor How Fruit Crisis: ed. Harold Universit 7. Maurice N Perceptic ledge, 1 8. Alvin Nge Lab., Cr p.17, col 9. "Nixon's 1974, p.2 10. Walter Li Scientific 11. Harley Sa Quarter 1

the Technical Communication, Third 1975, pp.90-91. "Poisonous Mushroom" Newsweek, 11 Nov. gy Emerges from the June 1975, Sec.2, 2. omology of ith, London: Rout- New Haven: Yale Live with Himself, in The Environmental st of the Seas: Read, Washington, Linguistics, 1969, 1968, p.112. Shuy, eds., Washington, Linguistics, 1969, nd Giroux, 1974, Taylor, Intro- ology, New York: 66, p.147. Survival, same list of this. Examples given different title. something has been te the work cited idem" in a list of something has been te the work cited different title.

SA gets oil bonus

Star (55)

1/3/82

The Star Bureau

LONDON — According to published reports here Gulf oil producers have defied an official embargo on sales to South Africa by secretly shipping more than 30 tanker loads of crude to the Cape.

The London Sunday Times says the hard-up oil producers, suffering from the depressed world demand for the commodity, have turned to South Africa

to take advantage of the premium prices paid there.

Last year Opec's balance of payments surpluses fell from R100 000 million to R60 000 million and now economists are forecasting a deficit for 1982.

The effect of low demand and poor prices on oil producers is illustrated by the turnaround in Nigeria which, in 12 months

has switched from being a net lender to banks to the tune of R2 200 million to being a net borrower of R2 300 million.

The report does not name the Gulf producers allegedly involved in selling oil to South Africa or the method of payment.

But perhaps the old ratio — one ounce of gold for 13 barrels of oil — has not been forgotten.

(2) Premiums Treated as an Asset - Cont'd:

Year 02 - same as year 01

03, Jan 1: Life Policy	Bank	300
Dec 31:	Income Statement	60
	Life Policy	60
	Policy written down to surrender value	
	(See Note 1 below)	
04, Jan 1: Life Policy		300

Jan 2:	Escom expected the difference in costs of electricity in the two regions to decrease. - Sapa	300
Jan 2:	In 1960 the average price per unit of electricity sold in the Western Cape was 150% more than on the Witwatersrand.	24 000
Jan 2:	Mr Smith said, "It is known in real terms that the cost of electricity, particularly in the Western Cape, is now lower than 10 or 20 years ago."	23 460
Jan 31	Mr Smith added that differences in the electricity price had dropped since the introduction of a country-wide transmission network.	24 000
Jan 2:	He told Escom staff at a meeting in Cape Town that because Cabora Bassa power had been regularly interrupted by sabotage in Mozambique, more coal was used at coastal stations last year.	23 460
Jan 31	CAPE TOWN. - Escom suffered its largest deficit last year, the general manager, Mr Jan Smith, said at a commission dinner last night.	24 000

Policy would be reflected on the partnership set at its surrender value of R240.

ally dissolves the partnership as legal and reason a partnership income statement would have to the date of death of the partner so as to his capital account. The proceeds from the life in this income statement and NOT credited direct

Escom
gets a **55**
deficit **ROM**
shock **4/3/82**

The death account to be dr ascertain policy w to the p

Note 1: At the end balance st

Jan 31

Jan 2:

Jan 2:

04, Jan 1: Life Policy

Dec 31:

03, Jan 1: Life Policy

Talks on restoring Cabora power

LISBON—A Portuguese delegation will leave for Mozambique later this month to try to negotiate the resumption of electricity exports to South Africa after a 10-week break, official sources said yesterday.

The power lines carrying electricity from the Portuguese-operated Cabora Bassa Dam in Mozambique to South Africa have been down since December 22.

This is because of guerilla action against the marxist regime of President

Samora Machel.

The sources said the Portuguese Government-controlled company that operates the Cabora Bassa hydro-electric scheme wanted protection from the Mozambican armed forces for the repair teams to deter a guerilla attack.

The threat of attack rather than any technical problem had kept the lines down so long, a senior official said.

The Lisbon office of the Mozambique National Resistance Movement claimed responsibility for blowing up the lines.
— (Sapa-Reuter)

UJGT

Star 5/3/82 (55)
**Cabora sabotage
blow to Escom**

CAPE TOWN — Escom suffered its largest deficit last year, the general manager, Mr Jan Smith, said at a dinner in Cape Town.

Addressing staff members, he said more coal had to be used at coastal stations last year. Only a fraction of the energy that should have been delivered from Cabora Bassa in Mozambique was received because of regular acts of sabotage.

Mr Smith added that differences in the price of electricity had dropped in an evolutionary manner since the inception of a country-wide transmission network.

"It is known in real terms that the cost of electricity, particularly in the Western Cape, has decreased steadily during recent years and is now lower than 10 or 20 years ago," Mr Smith said.

In 1960 the average price per unit of electricity sold in the Western Cape was 150 percent more than on the Witwatersrand.

Escom expected the difference in costs of electricity in the two regions to decrease, but this would not take place simultaneously as the characteristics of the two areas differed, Mr Smith said. — Sapa.

JUST

PETROL PRICE

SS FM 5/3/82

Is it rational?

Pity the poor SA consumer. In defiance of all economic logic, when world commodity prices fall — or there is a glut in the local market — you can bet your bottom dollar he will be clobbered with an administered price increase.

World oil prices have slumped — the spot price is now below \$30 a barrel. The price of petrol in this country, already one of the highest in the world, is, therefore, about to be increased again. And very likely — and quite appropriately — on April Fool's Day.

This will follow the 6c/l increase imposed last July, which brought the price of petrol to 60c/l. The increase now looming could be at least 3c/l and possibly as much as 8c — which would be a rise. After the last increase to 60c/l government's cut of the price was already a generous 31c/l.

Many issues are involved in the prospect of a further petrol price increase. It comes soon after the 10% import surcharge and a return to government's financing of its spending in an inflationary way, although this is likely to be temporary.

Only last November, an increase from the 60c level was luckily averted when government announced that the adverse effects of the rand's depreciation could, until the end of March 1982, be met out of the Fuel Equalisation Fund. To the extent that an increase is needed to compensate for the reduced buying power of the rand, it may well now be unavoidable. But much deeper influences may be at work. The FM earnestly hopes that SA is not locked into a long-term oil purchasing contract at rigid prices, so that little immediate benefit can flow from lower international

prices. If that be the case, not much can be said for the forecasting abilities or negotiating skills of those who purchase our oil.

Another question is whether a higher petrol price is intended just to re-establish normal profit margins for refiners and distributors. Or is government snatching at another form of indirect taxation to maintain revenues sorely strained by lower gold earnings?

A further possibility could be that government believes a higher price would discourage petrol consumption and thus reduce the need for the current level of oil imports. The balance of payments current account deficit should then grow more slowly.

With Sasol's profits soaring well above forecast levels, it is unlikely that government saw a need to provide further protection through the petrol price mechanism.

If a higher price for petrol be needed to compensate for the rand's 30% slide against the dollar over the past year, it should not be forgotten that this slide, in turn, has its roots in a profligate monetary policy in 1980. At that time, the money supply soared out of control and interest rates hit rock bottom — despite a double-digit inflation rate.

Hopefully the new spirit at the Reserve Bank will guard us against similar disasters in the future.

One of the difficulties with any analysis of petrol price issues is extreme official secrecy. Circumspection may be necessary, but a total blackout could also be detrimental to the public interest. When the price increase is announced, government owes the public a rational explanation.

(55) ~~Q. 327~~ Hansard
Walvis Bay: electric power supply

Q. 61. 3268 10/3/82

*2. Mr. S. S. VAN DER MERWE asked
the Minister of Mineral and Energy Affairs:†

- (1) What body is responsible for the supply of electric power to Walvis Bay;
- (2) whether the electric power supply to Walvis Bay has been interrupted since 1 January 1982; if so, (a) how many times and (b)(i) for how long and (ii) why, in each case?

†The MINISTER OF INDUSTRIES,
COMMERCE AND TOURISM (for the
Minister of Mineral and Energy Affairs):

- (1) The South-West Africa Water and Electricity Corporation (Pty.) Ltd. (SWAWEK).
- (2) Yes.
 - (a) Sixteen times.
 - (b) (i) The times are reflected in the following list which is tabled herewith:

327

WEDNESDAY, 10 MARCH 1982

328

From 23h00 on 2 January to 04h00 on 3 January.
From 06h00 to 09h00 on 3 January
From 12h00 to 15h00 on 3 January
From 18h00 to 21h00 on 3 January
From 23h00 on 3 January to 04h00 on 4 January.
From 06h00 to 09h00 on 4 January.
From 20h25 on 1 February to 00h25 on 2 February.
From 14h38 to 16h20 on 5 February.
From 06h41 to 17h05 on 10 February.
From 19h26 to 20h32 on 10 February
From 08h03 to 08h31 on 11 February
From 10h46 to 10h56 on 15 February 1982

- (ii) The power interruptions during January were the result of load shedding by SWAWEK because the coal conveyer system at the Van Eck Power Station in Windhoek broke down. The power failure on 1 February was caused by the explosion presumably as a result of lightning, of an auxiliary transformer at Omaruru.

The power breakdown on 5 February was caused by lightning, the two power failures on 10 February occurred when the main coupling transformer at Omaruru broke down. The short power failures on 11 and 15 February were caused by a temporary shortage of power.

according to international standards. Spent fuel elements from Pelindaba have also been sent to South African ports for many years. The consignments comply with international safety regulations as to both the packaging and the transport thereof.

Nuclear fuel

213. Mr. D. J. N. MALCOMESS asked the Minister of Mineral and Energy Affairs:

Whether spent nuclear fuel from (a) the Koeberg nuclear power plant and (b) any other source is to be reprocessed in the Republic within the next five years?

The MINISTER OF MINERAL AND ENERGY AFFAIRS:

(a) No.

(b) No.

X
55
Radio-active substances
12/3/82
Hansard Q. Col. 376-7
211. Mr. D. J. N. MALCOMESS asked the Minister of Mineral and Energy Affairs:

Whether radio-active substances from (a) the Koeberg nuclear power plant and (b) any other source are to be transported through urban areas; if so, (i) what urban areas and (ii) what precautions will be taken?

The MINISTER OF MINERAL AND ENERGY AFFAIRS:

(a) Yes. some irradiated fuel elements may, from time to time, be transported from Koeberg to Pelindaba.

(i) The route has not yet been selected.

(ii) Such movements will take place only with the full approval of the Atomic Energy Board and in accordance with International Atomic Energy Agency rules for the packaging and transport of such materials.

(b) Radio-isotopes for use in medicine, agriculture and industry have been transported through urban and other areas for more than twenty years. These isotopes are being packed

Oil/gas

12/3/82

55

Hansard

Q. 61-377-8

214. Mr. D. J. N. MALCOMESS asked
the Minister of Mineral and Energy Affairs:

- (1) What amount was spent in 1981 on prospecting for oil (a) on land and (b) at sea;
- (2) whether any (a) oil and (b) gas was discovered in that year; if so, what quantity in respect of each discovery?

The MINISTER OF MINERAL AND ENERGY AFFAIRS:

- (1) (a) None.
(b) R65,28 million.
- (2) (a) Yes. Gas condensate (light oil):
304 cubic metres per day.

260 55 Sasol II/Sasol III 12/3/82
 Hansard Q Col. 374
 261. Mr. T. ARONSON asked the Minister of Mineral and Energy Affairs:

- (1) What is the (a) latest estimate of the total cost and (b) anticipated completion date of (i) Sasol II and (ii) Sasol III;
- (2) what is the total number of persons employed in respect of these projects?

The MINISTER OF MINERAL AND ENERGY AFFAIRS:

- (1) (i) Sasol II:

(a) R2 499,1 million.

The main production units have already been completed in December 1980.

- (ii) Sasol III:

R3 276 million.

(b) 1984-'85.

- (2) Total operating manpower complement (excluding construction and coal mine workers)—

Sasol II ± 7 800

Sasol III ± 3 400

The operating manpower complement of Sasol III is smaller than that of Sasol II as Sasol II provides Sasol III with certain auxiliary services

55 star 13/3/82
N-station fuel 'may pass through cities'

THE ASSEMBLY — Some irradiated fuel elements might be transported through urban areas from Koeberg nuclear power station near Cape Town, the Minister of Mineral and Energy Affairs, Mr F W de Klerk, said yesterday. Replying in writing to Mr John Malcomess (PFP Port Elizabeth Central), he said the elements might, from time to time, be transported to Pelindaba, but the route had not yet been selected.

"Such movements will take place only with the full approval of the Atomic Energy

Board and in accordance with International Atomic Energy Agency rules for packing and transporting such materials."

He said radio isotopes for use in medicine, agriculture and industry, packed to international standards, had been transported through urban and other areas for more than 20 years.

"Spent fuel elements from Pelindaba have also been sent to South African ports for many years. The consignments comply with international safety regulations governing the packaging and transport thereof." — Sapa.

251 (274) Pogo uprisings *Howard Q. Col. 395*
16/3/82
290. Mr. W. V. RAY asked the Minister of Law and Order:

- (1) Whether the commission of inquiry under the chairmanship of Mr. Justice J. H. Snyman which investigated the Pogo uprisings at Paarl and elsewhere in 1962 made any recommendations on structural protection of police stations against attack; if so, what recommendations;
- (2) whether steps were taken to implement such recommendations; if so, (a) when and (b) at how many police stations;
- (3) (a) how many police stations were attacked during the latest specified period of two years for which figures are available and (b) how many such police stations were so protected against attack?

The MINISTER OF LAW AND ORDER:

- (1) No.
- (2) Falls away.
- (3) (a) Five from 4 January 1980 to date.

(b) Although none of the stations was structurally protected, three of them were guarded by armed guards.

I should, however, like to add that the protection of police stations throughout the country is enjoying high priority. A number has already been provided with structural protection, but for obvious security reasons further details cannot be divulged.

55 *Howard Q. Col. 395*
Koerber nuclear power station
16/3/82
299. Mr. T. ARONSON asked the Minister of Mineral and Energy Affairs:

What will be the total cost of the com-

pletion of all phases of the Koerber nuclear power station?

The MINISTER OF MINERAL AND ENERGY AFFAIRS:

The estimated completion cost is R1 801 million in terms of 1982 prices. This estimate does not include escalation cost from 1982 till the completion of the project.

206 *Howard Q. Col. 396*
16/3/82
300. Mrs. H. SUZMAN asked the Minister of Law and Order:

- (1) How many (a) males and (b) females were arrested for offences relating to reference books and influx control in each of the main urban areas of the Republic in the second half of 1981;
- (2) what was the total number of such arrests in the Republic in that period?

The MINISTER OF LAW AND ORDER:

	(a)	(b)
Pretoria	7 071	891
Johannesburg	14 665	3 792
Soweto	3	11
Durban	1 263	349
Pietermaritzburg	4	0
East London	466	149
Port Elizabeth	5	—
Cape Peninsula	90	73
Bloemfontein	164	206
West Rand	1 031	133
East Rand	1 664	354
	30 534	7 265

These figures only represent the number of persons arrested by the South African Police.

329 *Howard Q. Col. 396-7*
Terrorism Act: detainees
16/3/82
306. Mr. P. R. C. ROGERS asked the Minister of Law and Order:

- (a) How many persons detained under

the Terrorism Act have escaped from custody since the introduction of the said Act and (b) how many such persons (i) were subsequently re-arrested and (ii) are known to have left the country?

The MINISTER OF LAW AND ORDER:

- (a) 11.
- (b) (i) None.

(ii) 11.

254 *Howard Q. Col. 397*
17/3/82
313. Mr. R. A. F. SWARTZ asked the Minister of Law and Order:

- (1) How many persons joined the Police Reserve Force at police stations in each province of the Republic in 1981;
- (2) how many reservists retired from service in 1981?

The MINISTER OF LAW AND ORDER:

(1) Transvaal	1 146
Natal	297
Cape Province	302
Orange Free State	140
	1 228

254 *Howard Q. Col. 397-8*
Police Force: charges against members
16/3/82
329. Mr. P. R. C. ROGERS asked the Minister of Law and Order:

- (a) How many convictions have resulted from charges laid against members of the Police Force by detainees or members of their families since the commencement of the Terrorism Act and (b) how many of those convicted were (i) Whites, (ii) Coloureds, (iii) Indians and (iv) Blacks?

The MINISTER OF LAW AND ORDER:
Statistics are not kept and are not readily available.

WEDNESDAY, 17 MARCH 1982

†Indicates translated version.

For oral reply:

278 *Howard Q. Col. 398*
17/3/82
*1. Dr. M. S. BARNARD asked the Minister of Health and Welfare:

Whether (a) he and (b) any official of his Department was consulted prior to the distribution to heads of institutions in the Cape Province of a circular concerning the content of annual reports of provincial hospitals?

†The MINISTER OF ENVIRONMENT AFFAIRS (for the Minister of Health and Welfare):

(a) and (b) No.
329 *Howard Q. Col. 398-9*
17/3/82
2. Dr. M. S. BARNARD asked the Minister of Health and Welfare:

- (1) Whether detainees are examined by State doctors on a routine basis; if so, (a) how soon after being arrested and (b) how frequently while being held in detention;
- (2) whether detainees are checked for psychiatric disorders;
- (3) whether the (a) medical and (b) psychological history of detainees is taken into account; if not, why not?

The MINISTER OF ENVIRONMENT AFFAIRS (for the Minister of Health and Welfare):

16/3/82

55 Hansard Q. Col. 390-391
Uranium Enrichment project

124. Mr. D. J. N. MALCOMESS asked the Minister of Mineral and Energy Affairs:

- (1) (a) What amount has been spent on the uranium enrichment project to date, (b) what were the original estimates and (c) what additional funds is it estimated will be required before the enrichment plant is completed;
- (2) (a) when is it estimated that the Uranium Enrichment Corporation will produce enriched uranium in commercial quantities and (b) when will such Corporation be able to produce sufficient enriched uranium for the total requirements of the Koeberg nuclear power installation?

The MINISTER OF MINERAL AND ENERGY AFFAIRS:

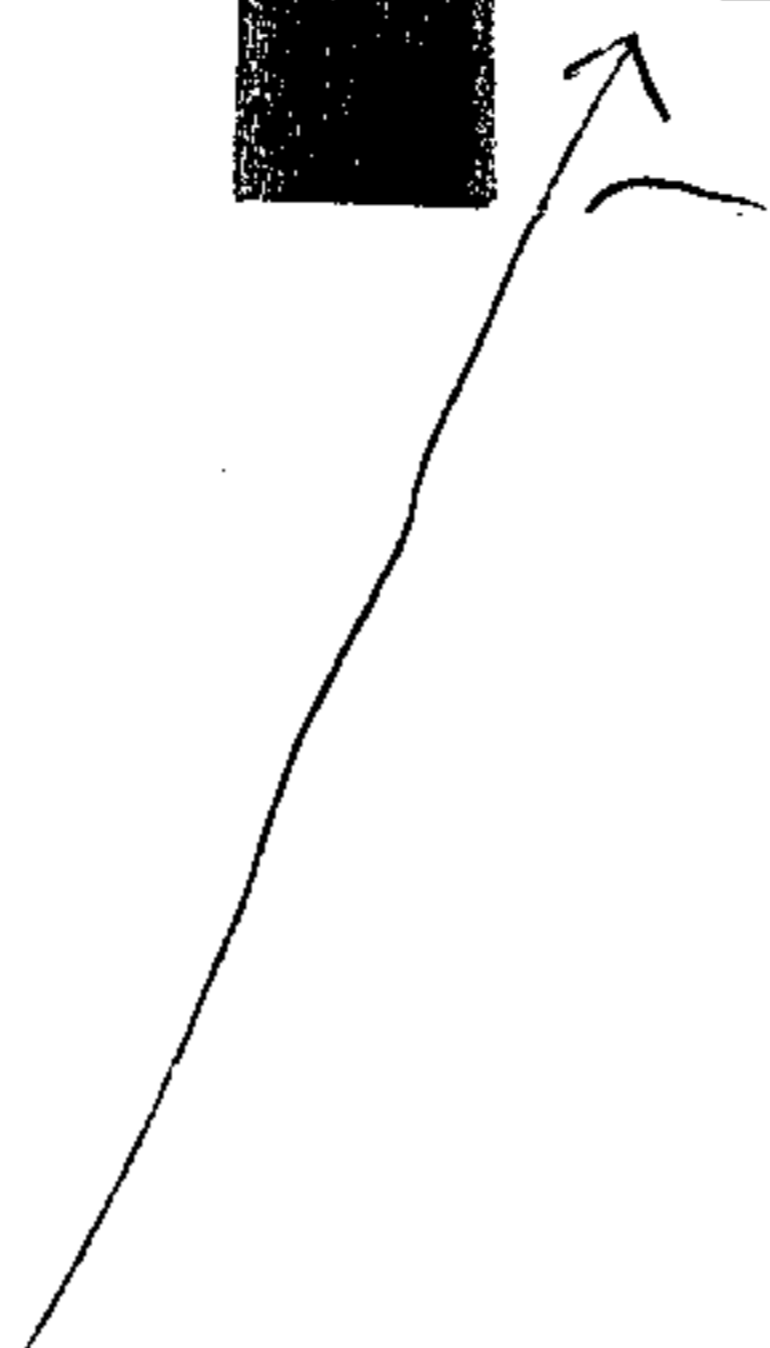
The information requested is confidential and extremely sensitive and regret-



391

TUESDAY, 10

ably I cannot make it available to the Honourable Member.



The United Nations has declared 1982 the "international year of mobilisation for sanctions against SA," with the objective of rallying world opinion in support of comprehensive and mandatory economic sanctions against the Pretoria regime. But it is ironic that the UN's move comes at a time

perseding the previous supply agreement under which the Shah's Iran met 90% of SA's needs — appears to have been sufficiently successful for government to have avoided depleting its large strategic reserve of crude. It may even still be adding to it — despite the relatively small pool of non-embargoed crude available, officially, on world markets.

The prospects for an effective embargo on oil deliveries to SA clearly would be better in times of tight oil markets. But even then — given the fragmented nature of world oil trade — it is likely that government could attract enough oil to cover important needs by paying a premium over the market price. (Its willingness to bid up the price has been evidenced in the past.) Additionally, it can be argued that no embargo on oil deliveries can be fully effective when the West relies so heavily on the minerals which SA exports — and when other countries have extensive business interests in the Republic. The importance of Durban as a bunkering port is another factor.

However, such considerations have not detracted from government's efforts to minimise SA's reliance on imported crude. The country's large reserves of fairly poor-quality coal have been extensively developed, so that — uniquely for a Western-bloc industrialised country — just over 75% of its total energy requirements are drawn from that source. But, apart from hydro projects, SA looks to oil for the balance of its energy needs — and liquid hydrocarbons, of course, remain essential as road vehicle fuels and for the production of many petrochemical products. Now, however, after many decades of costly effort, it seems that SA's drive for indigenous hydrocarbons production is showing improved results. First, there are reports of a promising gas and condensate find off the southern coast. And second, production of synthetic oil from coal will increase several-fold as the second Sasol plant works up to rated capacity during the course of this year. Both contributions will be minor in relation to the Republic's overall requirements, but government will nevertheless draw considerable reassurance from them.

Offshore fund

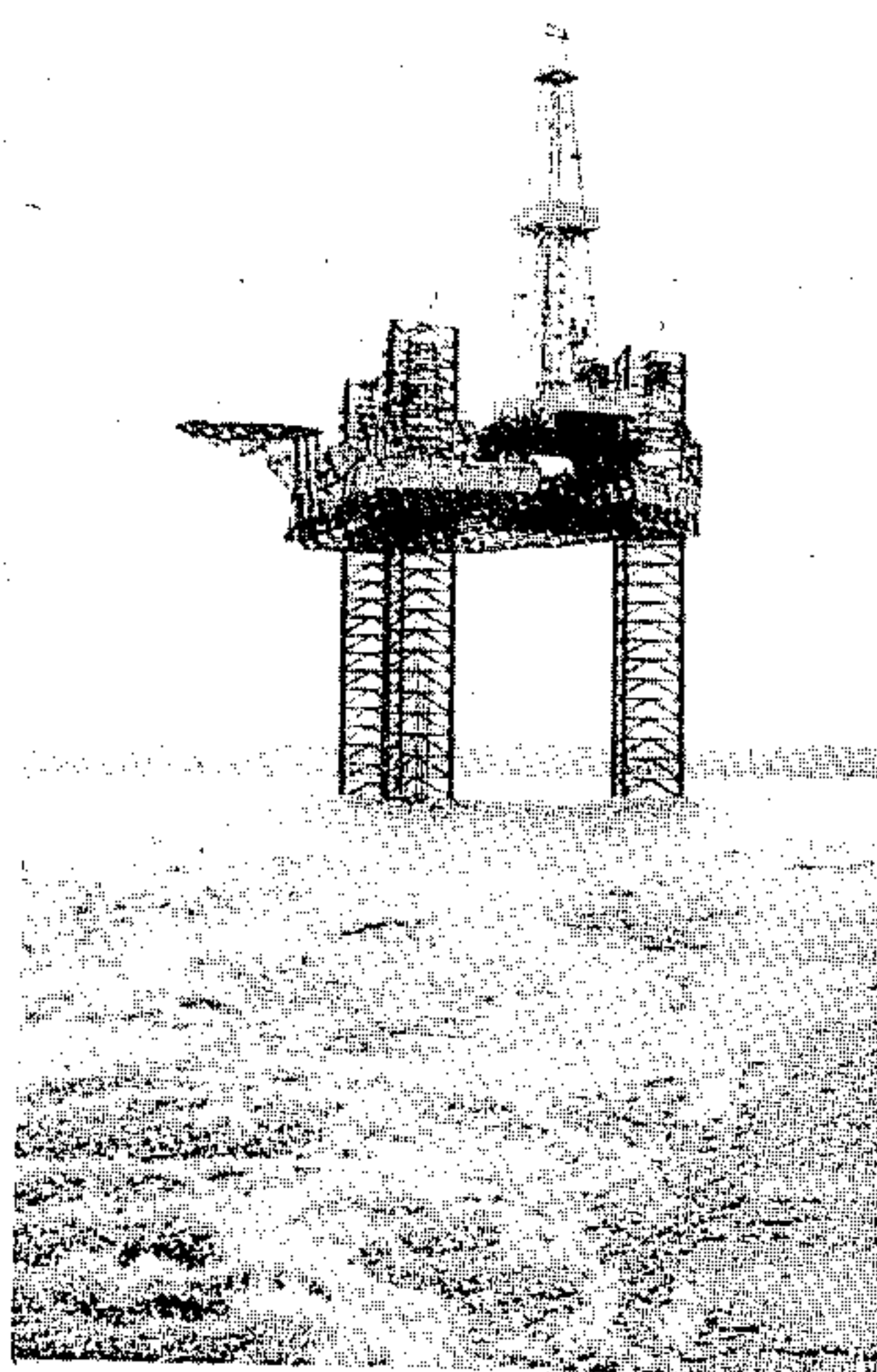
The offshore find, which was heralded as SA's first significant discovery, was made early last year by Soekor (Southern Oil Exploration Corporation) set up in 1965 and owned jointly by Sasol and the Industrial Development Corporation of SA.

Whether the find can be regarded as commercial remains to be seen. Soekor is optimistic. While acknowledging that reserves are smaller than anticipated, it is hopeful that further wells will prove up enough gas to make exploitation feasible. On the basis of the four successful wells out of the eight drilled by Soekor in Mossel Bay last year, reserves are provisionally esti-

when SA's access to crude oil — the one vital mineral it so conspicuously lacks — is easier than has been the case for a number of years. Although all Opec (and most non-Opec) producers officially operate an embargo policy against the Republic, the swelling surplus of crude on world markets

estimated at about 400 billion ft³ with a production rate of about 10, ft³ a day. But such figures are highly speculative.

The find has already had the effect of encouraging Soekor, as the company boosted its total of well completions last year to 15 (compared with seven in 1980). The pace of drilling is likely to be stepped up again at end-year or early-1983, when Soekor expects to take delivery of two additional rigs which will be capable of operating in deeper waters than its present Sedco K (drilling in Mossel Bay) and Sedco 708 — which it



Oil search . . . stepping up the pace

might have to release. After many years of drilling onshore (which served only to locate new coal deposits) Soekor has been operating exclusively offshore since 1978. Including work carried out by private South African and international companies (which, although some concessions are still held, no longer appear to be active as operators), around 200 wells have been drilled in South Africa — of which about 68 were offshore.

Although government is known to have an interest in methanol production for motor fuels use — mainly because it is claimed to be more efficient than the Synthol route in terms of coal consumed per vehicle-kilometre of useful work — it is still looking to Sasol's oil-from-coal plants for the main thrust of its oil independence programme. The original Sasol plant has been operating since 1955, during which period many modifications to the fairly-dated technology employed there have been made.

These are incorporated in the new Sasol

is enabling government to cover its needs, writes the *Petroleum Economist*.

It does this, it is believed, by buying oil either on spot terms or under short-term contracts through intermediary companies, reselling it on arrival to the five major refiner-marketers. This arrangement — su-

2 plant at Secunda, which started up last year and is expected to reach full production by end-1982. Also slated to begin producing this year are the first units of the Sasol 3 plant at Secunda, although full design output will not be achieved until fiscal 1984-85. However, there are no immediate plans for further expansion, with Sasol's chairman hinting that resources will be fully stretched until 1985 by present commitments. Therefore it is likely that the next major synfuels project will be undertaken by the private sector.

Further, the Sasol plants cannot be regarded as economically viable, in the normal sense, in view of their very great capital costs. Sasol 3 is estimated to cost R3,3 billion, while Sasol 2 expenditures totalled R2,5 billion at prices applying several years ago.

Coal reserves

SA's reserves of coal are the country's largest indigenous energy resource and total at least 51 000 Mt recoverable, out of coal-in-place reserves of 110 000 Mt — although the quality is generally low. Recently, in line with an upward revision of exploitable reserves, the ceiling on exports was doubled to 80 Mt/year — which, if attained, will make SA the world's third largest exporter. Exports in 1980 totalled 29,2 Mt.

The five international companies operating in SA between them have about 85% of the inland market for oil products. Shell and BP, with approximate market shares of 18% each, refine at their jointly-owned Sapref plant at Durban, which has a capacity of 10 Mt/year. The west coast and Namibia are supplied by Caltex, with a market share of 20%, from the company's refinery at Cape Town. Also at Durban, Mobil's plant has an 18% market share. Total, with a 12% market share, has a 30% share in the Natref refinery at Sasolburg.

Total's partners in Natref, formally, are Iran's NIOC with 17,5% and Sasol with 52,5%. But following the overthrow of the Shah, Sasol agreed with NIOC to assume the latter's share of capacity, giving Sasol an effective share of 70%. The Natref plant is set up to give a particularly high yield of light products, and — according to Sasol — has been giving "excellent" results despite the shift to heavier crudes "of somewhat varying quality" following the loss of Iranian supplies. Last year, the plant was adjusted to produce an increased diesel cut at the cost of lower gasoline output. Demand for diesel fuel has continued to rise, while that for gasoline has been held in check by measures such as the closure of filling stations at weekends.

The other refiners have also invested heavily in facilities to maximise their light products yield but, with demand growth in SA curtailed and with the expected loss of their Zimbabwe export market, they are faced with sizeable over-capacity.

Oil glut: BAD news for SA!

S. Times 21/3/82

55

DESPITE the growing euphoria in industrial countries over the bear market in oil that has caused oil prices to fall for the first time since 1973, the situation promises few gains for South Africa — and much to lose.

The biggest prize that may be gained is a dampening of the inflation rate.

During the past decade oil has been a major factor in the inflation rate, which has already declined sharply in the United States.

A forecast by London analysts, Simon & Coates, finds that a 10% cut in world oil prices will result in inflation falling by 1% in OECD countries and in Japan, the UK and Germany, and by 1.25% in the US and France.

Similarly, the same fall in the oil price will result in growth rates in those countries rising by between 0.5% in US and 1% in Japan.

On both counts South Africa's gains will be diluted or non-existent.

Oil-market analysts are forecasting that the bear market could continue for two to three years. Ironically, a shadow is cast over South Africa's growth prospects for as long as the oil market remains soft.

Over the past decade the gold price —

By Andrew McNulty

crucial to SA's economic prosperity — has roughly followed the oil price with a time lag of six to nine months.

The inflation rate will benefit less from a lower oil price because, unlike countries such as Britain and the US, where the falling oil price has already resulted in big price cuts at the petrol pumps, the SA petrol price will still be increased, even though probably at a lower rate than if the oil price was still rising.

Although the turnabout in the oil market has set back alternative fuel programmes overseas, South Africa will almost certainly continue to pursue policies that encourage fuel conservation and diversification of energy sources — one way is to keep raising the petrol price — and still faces the need to spend many million of rands on synthetic fuel plants.

The motivation to research and construct new fuel plants has in no way been reduced — and this also appears to be the thinking in official circles as well as in leading private-sector organisations such as AECI — because the soft oil market cannot be relied on to continue.

With the exception of less than a handful of countries such as Japan, the United States and possibly Germany, the energy mix in the industrial world

has not changed materially.

Between 1974 and 1980, oil's share of the world energy market declined by only 1% to 43.6%, the gains being made not by coal, which also lost 1% of the market, but by natural gas and nuclear energy.

Saudi Arabia remains the key to the oil conundrum and is at the heart of the industrial world's vulnerability to a sudden change in the energy scenario. The country produced 43.7% of Opec's total output last year against 23% in 1976, but has already cut back production in the past six months from 10-million to 8.5-million barrels a day, and has declared its preparedness to cut back much further.

There is also the constant danger of a political upheaval in Saudi Arabia, a risk which looms more foreboding as strains between Opec members grow.

A major reason for the fact that world demand for crude oil is now at a 12-year low is the low levels of economic growth in industrial countries, far below the averages of more than 5% in the US and OECD countries from 1964 to 1973.

A resurgence of these growth rates as politicians stoke up economies would increase oil demand dramatically.

Also, in the past the oil price has never peaked and then stayed down — it has risen erratically with sudden, severe rises following declines or periods of stability.

55 ~~320~~ *Hausand Q. Col. 442*
Port Elizabeth: electricity for Black
townships 22/9/82

320. Mr. T. ARONSON asked the Minister of Co-operation and Development:

- (1) What was the total cost of providing the Black townships of Port Elizabeth with electricity;
- (2) (a) in what year is it anticipated that electrical reticulation and street lighting will be provided in each of these townships and (b) at what cost?

The MINISTER OF CO-OPERATION AND DEVELOPMENT:

(1) and (2) Since July 1978 tenders to an amount of R1 174 161,00 have been allocated to provide electricity to the Black townships of Port Elizabeth. It is, however, estimated that an amount of R30 million will be required to complete these electrification schemes. If such an amount could immediately be obtained the project can be completed within 3,5 years. Due to the present financial climate as well as other priorities as far as housing is concerned, it is not possible to give a clear indication at this stage regarding the expected date of completion of the service.

Flights: meals

375. Mr. H. H. SCHWARZ asked the Minister of Transport Affairs:

- (a) What are the different types of meals which are available to passengers on

SA blamed for Cabora sabotage

Mail Correspondent

LISBON. — Mozambique has accused South Africa of deliberate economic sabotage against key rail and power installations in the country in a bid to keep Mozambique dependent on Pretoria.

Maj Gen Jacinto Soares Veloso, Mozambique's Security Minister, claimed in a Lisbon newspaper interview at the weekend that South Africa was masterminding sabotage of the Cabora Bassa hydro-electric scheme's power lines and rail networks between Maputo and South Africa.

He said hardline South African military chiefs were overriding the advice of business and civilian leaders and stepping up aggressive tac-

tics against Mozambique on the pretext of wiping out guerrilla opponents allegedly based inside the country.

The minister said Escom, the South African electricity company, had told Portugal, which administers the Cabora Bassa dam company until full debt repayment on construction costs has been completed, that it could not negotiate higher power prices because of the uncertainty of supplies from the dam.

"Yet it is the South African military authorities themselves who order the sabotage of the power lines carrying electricity to South Africa," the minister complained.

Guerrillas of the Mozambique National Resistance Movement, said to have overt South African backing, have been responsible for regular

attacks on power pylons from the dam, interrupting supplies for many months and depriving the Portuguese Government of revenue for loan repayments.

Portugal recently sent a mission to Maputo in a bid to persuade the Government there to step up its campaign against the guerrillas so that Portuguese technicians could repair sabotage damage and get power flowing to South Africa, which relies on the dam for between 12% and 16% of its total electricity needs.

● A spokesman for the South African Defence Force said last night: "General Veloso is obviously quite uninformed about circumstances in Mozambique.

"He does not take cognisance of the fact that there is a civil war in Mozambique, and uses the old habit of blaming South Africa for problems in his country."

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SA blamed for Cabora sabotage

Mall Correspondent

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"He does not take cognisance of the fact that there is a civil war in Mozambique, and uses the old habit of blaming South Africa for problems in his country."

Boeing in court order drama

Court Reporter

THE sheriff was yesterday authorised by the Rand Supreme Court to attach a Boeing 707 jet aircraft belonging to a Zaire company.

It was parked at Jan Smuts Airport and was due to leave within a few hours.

The Zaire company had failed to pay for R171 382 worth of meat and milk powder bought from Silverpride Sales (Pty) Limited, of Braamfontein, Johannesburg, the court was told.

An urgent application for attachment of the aircraft to found jurisdiction was brought by Silverpride before Mr Justice Van der Walt.

Mr Frederick Johannes Wessels, a Silverpride representative said his company had delivered meat and milk powder to Inter-Fret, of Kinshasha in Zaire, between October 20 and December 1 last year for which Inter-Fret was obliged to pay US \$201 189. Inter-Fret paid only \$35, leaving an outstanding balance of R171 382, the court was told.

Inter-Fret was the owner of a Boeing 707 jet aircraft, now parked at Jan Smuts Airport, the court was told.

The aircraft was due to depart on March 23 but for technical reasons it was being delayed for a day or two. The aircraft was the only asset of Inter-Fret in South Africa and was due to leave in the next few hours, it was alleged.

Secunda gets a spanking new post office

Mall Reporter

A R900 000 post office was opened in Secunda yesterday by the Minister of Posts and Telecommunications, Mr Hennie Smit.

Postal income at Secunda

is now R271 000 annually with nearly 5,8-million postal articles delivered and 3,5-million articles posted every year.

The new post office, with a staff of 34, will operate 6 500 private postboxes.

Two mail collecting points each with 600 postboxes are planned in the suburbs where people may collect mail.

The building in which the Secunda Post Office was housed originally will become a branch post office.

'Clients' draw cash at gunpoint

Mall Reporter

THREE robbers escaped with R3 000 in cash yesterday morning after holding up a building society branch in Braamfontein, Johannesburg.

An employee, Mrs Magda McAdam, said: "I thought they were clients and asked them if they needed any help."

Then one pulled a gun and told her to fill bank bags with money. As she opened the cash drawer, she set off the

alarm.

Once the bags had been filled, the man grabbed them and fled with his two accomplices.

No arrests have been made.

Meanwhile it was a bad weekend for three overseas tourists in Johannesburg, victims of city centre muggings.

Mr Peter Borg, 50, a Briton, was robbed in Noord Street by two men with knives who took his wallet, documents and watch, total value R600.

A Californian tourist, Mr Robert Riedel, 44, was thrown to the ground in Noord Street by four men who removed his wallet containing R200.

And Mr Lee Doape, 44, of the United States, was robbed by three men of his cash and personal documents, to the tune of about R650.

A man is in serious condition in the Hillbrow Hospital after being shot in the head when he allegedly threatened

a Bree Street jeweller, Mr Michael Hruschuka, with a knife on Saturday.

Late on Sunday night, a watchman at the Legal and General Building in Orange Grove was held up by four men.

They tied him up, broke into an office on the second floor of the building and took cash, several gold medallions and a .35 Browning pistol. The total value of the haul has not yet been estimated.

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BY RODNEY HARTMAN
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Africa later this year to
for Western Province in
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The Essex and Engl
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Western Province Cric
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And Western Provin
captain, Peter Kirsten,
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Despite forecasts of economic downturn, the retail market remains buoyant. Demand for shop space is still strong. Indeed, downtown Johannesburg, Hillbrow and Braamfontein there is only 3 600 sq m of empty space — a cry from the grim days of a few years back when there was a surplus of 28 000 sq m nearly.

Looking at the situation in Johannesburg and on the V watersrand property group Richard E says that the current demand for space has spread to the other major centres from the Cape to Pretoria.

"There is hardly a platteland town of note that is not experiencing the construction of a modern shopping centre or a general expansion of the retail area," says RE.

The demand, combined with the increase in building costs, has led to a national



Big strides in development of methanol

55 18/3/82 Star 23/3/82

By Pieter de Vos
AECI has made rapid advances in the development of methanol as a substitute for petrol or diesel fuel, Mr Harry Oppenheimer, chairman of the group, announces in the annual report.

A pilot plant should

be designed by the end of this year following encouraging research results in 1981. "The use of methanol — a field in which AECI has established a leading position — has been pursued vigorously," Mr Oppenheimer says.

Blends of up to 15 percent methanol in

petrol could now be used with confidence. Operation of cars using 100 percent methanol had continued to be satisfactory.

The refinement of additives to permit the use of methanol in an essentially conventional diesel engine proceeded well. Joint engine trials with a major overseas manufacturer were in progress, using one of the most promising of the additives developed.

There was confidence that methanol could be used satisfactorily as a substitute fuel in these various ways but the economics would depend on the policy adopted by the Government on alternative fuels.

Research into a process for the manufacture of organically-based ethanol from agricultural wastes had also been encouraging.

The demonstration plant for growth of algae from factory effluent had met expectations.

The design was now being refined with a view to larger scale operations. High-protein animal feed trials based on the algae produced were also in progress.

Oppenheimer warns of tough times

AECI faces a tough year. Trading conditions will be unfavourable and profit margins difficult to maintain, Mr Oppenheimer says in the annual report.

Profit would also be adversely affected by higher interest rates, resulting from increased borrowings to finance the capital programme and higher rates prevailing.

The recessionary conditions in the US and Europe did not appear to have abated, the general consensus was that inflation would remain at high levels and if account is taken of the continued shortage of skilled manpower, cost pressures were likely to increase.

However, the group's financial position remained sound and with the capital programme in hand and under consideration, the group was well placed to take advantage of any acceleration in economic activity.

Because of the recessionary conditions in Europe and the US, the nature of much of the competition which the South African industry now had to face was such that large sectors would have little hope of survival without adequate protection.

More effective long-term measures should be taken by the authorities as a matter of urgency, Mr Oppenheimer says.

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For an appointment with Mr Steven Woo from the 22nd to 26th March, when he will be in Johannesburg.

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MM 23/3/82 (55) 123

AECI ready to go on methanol fuel

By DAVID CARTE

AECI reports good progress with its investigation into methanol as a fuel and aims to commission its first pilot plant shortly.

AECI's chairman, Mr Harry Oppenheimer says in an annual report that the pilot plant has been built and will be based on the Mobil process for conversion of methanol over a zeolite catalyst into ethylene and other hydrocarbons.

In addition, research into a process for the manufacture

of ethanol from agricultural waste has been encouraging and AECI hopes to design a pilot plant by the end of this year.

"While there is confidence that methanol can be used satisfactorily as a substitute fuel, the economics will depend on the policy adopted by the Government in regard to alternative fuels."

Although crude oil prices may not increase in real terms in the short term, Mr Oppenheimer says an average real increase of 2% a year is likely in the longer term.

"In any event, South Afri-

ca's strategic position is such as to suggest that an indigenous source of feedstock and energy is highly desirable."

He reports that blends of up to 15% methanol in petrol can now be used with confidence and that cars have run satisfactorily on 100% methanol.

Mr Oppenheimer says the refinement of additives to permit the use of methanol in an essentially conventional diesel engine has proceeded well.

"Joint engine trials with a major overseas manufacturer are in progress using one of the most promising of the additives developed."

Fuel price set to rise again

Star
24/3/82
55

Chief Reporter

A further fuel price increase this year is likely, according to economists. They believe another rise will be necessary as the rand continues to weaken against the American dollar if the gold price remains low.

From April 1, the coastal petrol price will increase by 2.2c a litre and the inland price will increase by 3c a litre.

The Minister of Mineral and Energy Affairs, Mr F W de Klerk, yesterday attributed the increases to the weakening of the rand against the dollar.

Mr de Klerk said any further fuel price rises would depend largely

on the exchange rate and the gold price.

Mr Louis Geldenhuys, chief economist of Senbank, predicted a further weakening of the rand against the dollar in the next two quarters of the year, as the gold price was also expected to fall during this period.

Mr Geldenhuys said a further mild increase in fuel prices was possible, although such an increase would not be severe.

One of the immediate effects of the fuel price increases could be higher bus fares.

Mr Les Pettey, general manager of the Johannesburg Transport Department, said the diesel price increase of

3.3 percent was one of the factors that could lead to a fare increase.

He said the department would probably look for a fare increase of between 12 and 15 percent. This would be considered at the council's budget in June.

The president of Asocom, Mr Gordon Stuart-Reckling, said lower world oil prices outweighed South Africa's balance-of-payments problem.

He said the price of petrol should have fallen or remained static, as might have happened if the private sector had been allowed to participate in crude oil buying

Rise in paraffin price 'will lead to hardship'

25/3/82

E. Post

W.M.
55

By JIMMY MATYU

THE 2.7 cent increase in paraffin prices has been greeted with dismay by many blacks who describe the rise as "pathetic" and "oppressive".

Township residents said it would bring greater misery and hunger and was likely to contribute to a worsening of diseases such as tuberculosis, because most blacks depended on the use of paraffin.

Civic and sports leader Mr Dan Qeqe said it was "pathetic" that the Government should decide to increase the price of commodities that were used largely by the lowest paid section of the population.

"It seems the authorities do this without mercy or consideration," he said.

It was like "putting salt in a wound", because wages were low.

A former nurse who did not want to be named said her municipal pension of R29.98 was meant to cover rent, food purchases and clothing. "A paraffin price rise is bad for us," she said.

The vice-president of the Port Elizabeth Black Organisation (Pebo), Mr Jackson Mdongwe, said that for people in townships the increase was "oppressive".

"This is going to bring about more misery, frustration and starvation — especially as we are also faced with rent increases next month.

"Industry and commerce can prevent this by putting up wages," he said.

The secretary-general of the Domestic Workers' Association of South Africa (Dwasa), Mrs Pat Mqina, said the paraffin hike would hit hard — particularly working widowed mothers who were the sole bread winners.

"Some earn between R30 and R40 a month. Surely this cannot meet all their requirements. This is unfair when wages are not improved," she said.

A Kwazakele resident, Mr Boyana Williams, said he spent R40 to R45 a month on paraffin, which he used for cooking and lighting.

PETROL PRICE

Another rise ahead?

The fuel price increases announced this week are bound to provoke sharp controversy. To battered SA consumers the size of the increase — 2,2c/l for petrol and 2,7c/l for diesel — looks modest enough after all the dire predictions in the press. But the question is certain to arise whether an increase was necessary at all.

On the face of things, it seems to have been a gratuitous move. Although the external value of the rand against the dollar declined from \$1,34 in January last year to less than US96c this week, spot crude prices in Genoa and Rotterdam have fallen a good deal more — from about \$40/barrel to a low point of \$28 last week. A simple calculation shows that Energy Minister F W de Klerk should rather have announced a small cut in pump prices instead.

The fact that he didn't is probably due, ironically enough, to a considerable improvement in the country's supply position. The true position is a state secret, but De Klerk did not conceal the fact that the lion's share of the country's crude oil imports are now subject to an ironclad term contract. This leaves only a modest requirement to be purchased on spot markets to redress short-term imbalances.

The terms of the supply contracts are a well-kept secret, for obvious reasons. But it is a fair bet that they were secured at a level on or above the Opec basic reference price of \$34/barrel for benchmark Arabian

light crude. In that case, the external weakness of the rand becomes a major factor requiring an additional 7,31c/l to pay for the same volume of crude.

As De Klerk pointed out, "should the exchange rate have remained unchanged over this period (January 1981-March 1982), the price increase of 6c/l in June 1981 could have been avoided and, in conjunction with the advantages of lower crude oil prices negotiated, a price decrease would now have been possible."

The stable supply position secured by government's procurement agencies means that there is limited scope to offset the advantages of soft prices on spot markets against the disadvantages of a sliding rand.

Price rise

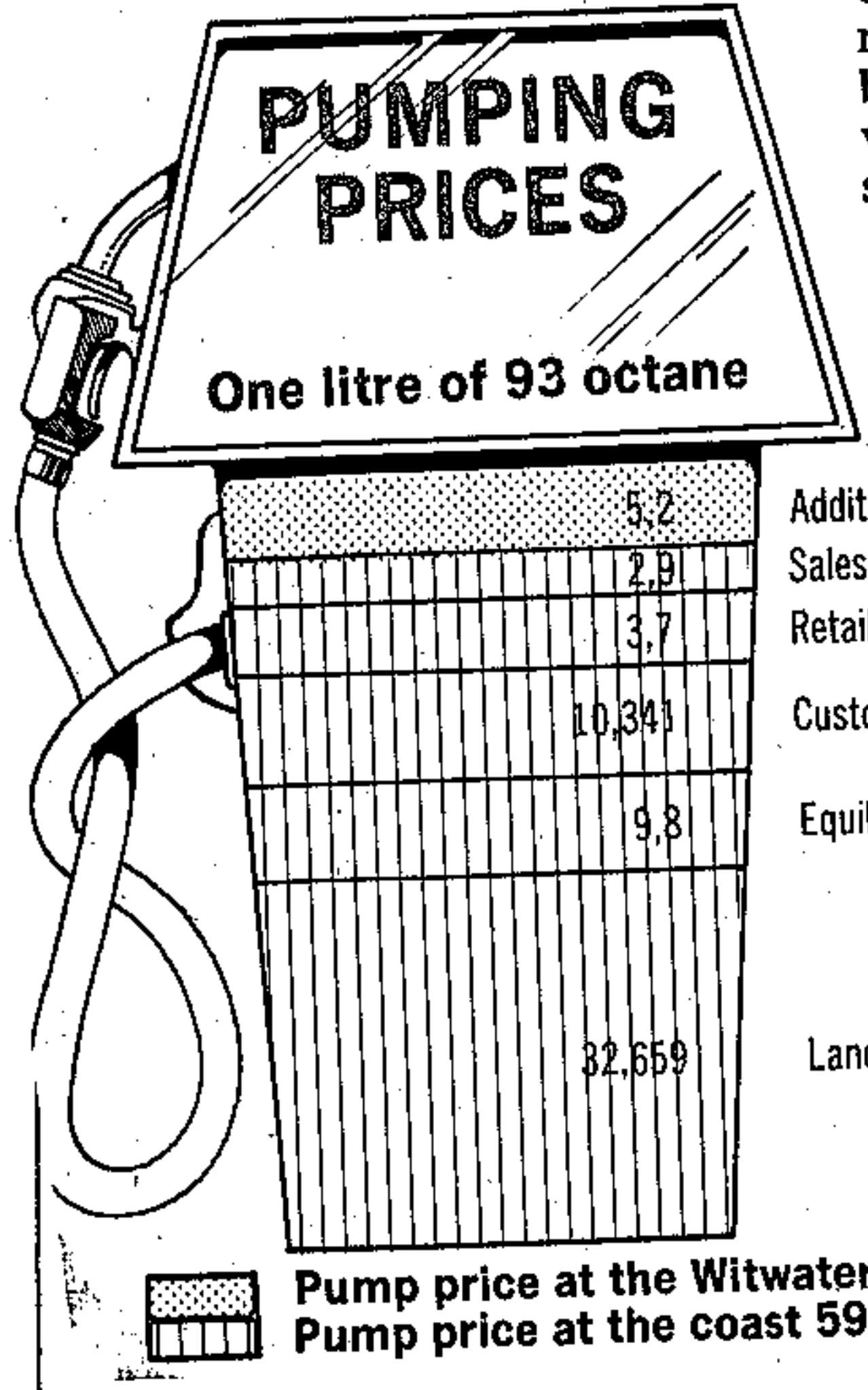
Another price rise in the near future seems unavoidable. The oil majors and the equalisation fund have absorbed 2,7c/l of the true extent to which prices should have been raised.

In this, the Minister seems to have gambled on an improvement in the fortunes of the rand between April 1 and the end of the year. If the rand does not appreciate and if, as seems likely, oil consumption falls as the "recession" deepens, then a hefty increase later this year is on the cards.

De Klerk seems to have acted correctly in ignoring short-term gains in volatile spot markets. Oil-exporting countries are fighting hard to regain the solidarity of their cartel. In Vienna last week they agreed to restore collective oil output to 18m barrels/day, 2m barrels/day below the previously agreed ceiling, in an attempt to support the reference price of \$34/barrel.

In addition, they seem to have discussed support systems for cartel members like Nigeria who have been badly hit by falling sales. Attempts are underway to gain agreement to further reduce output to 16 m barrels/day in the near future. If that happens, spot oil prices are bound to bounce back to levels at or near the basic reference price. The only problem confronting Opec at present is an

equitable formula to apportion the cut-backs. Even so, the general feeling in Opec is that the oil market will begin to harden once again in August.



Pump price at the Witwatersrand 64,6c
Pump price at the coast 59,4c

229
3/11

Cape Times 26/3/82

students De Klerk

De Klerk said the NP would uphold white self-determination, but the applause was more hesitant when he emphasized the importance of joint responsibility and decision making between whites, coloureds and Indians in certain areas.

He said he did not want to comment on "possible" constitutional proposals of the President's Council, but he emphasized that any proposals which jeopardized white self-determination, would be unacceptable to the NP.

Students hissed

Many students hissed when a student asked Mr De Klerk if he agreed with a statement by the Minister of National Education, Dr Gerrit Viljoen, about South Africa becoming an "integrated" society.

The student quoted from a French newspaper and Mr De Klerk asked him if he believed everything printed about South Africa in the overseas press.

"Do you believe it when

they say that we oppress people in this country?" Mr De Klerk asked to a mixture of hisses and applause.

Asked why the expelled NP MPs were not allowed to address their divisional councils after they were expelled, Mr De Klerk said to laughter that the NP would not provide platforms for "opposition politicians".

Mr De Klerk yesterday also addressed a meeting of about 100 businessmen in Pretoria.

He said the NP was determined to implement its policy of constitutional reform with regard to coloureds and Indians.

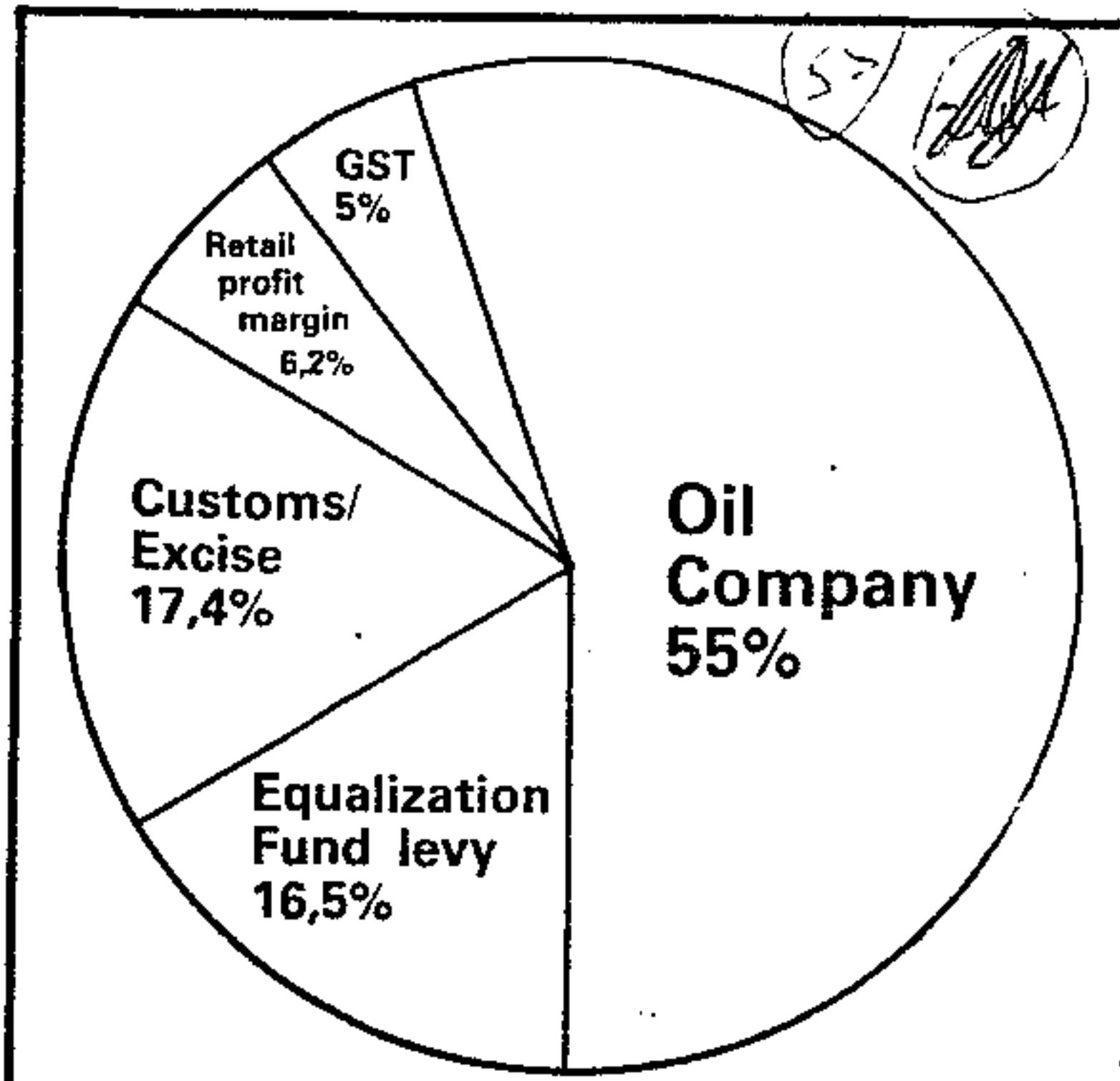
He added that violent confrontation would not solve South Africa's problems.

At present the coloureds had fewer political rights than any other group in the country and were ripe for communist exploitation.

The NP's policy had never been to secure white self-determination and security at the expense of other groups, and it would ensure that the same justice and fairness it demanded for whites was applied to other groups as well, Mr De Klerk said.

In spite of the breakaway by the group of MPs led by Dr Treurnicht, the NP would not alter its course and was determined to go ahead with its policies, he said.

The NP had no argument with other political groups about the maintenance of white self-determination. The "real debate" was how to give other population groups the same rights.



This is how the retail price of petrol at the coast will be made up from April 1. The Minister of Energy Affairs, Mr F W de Klerk, announced a 3,8 percent increase in the petrol price on Tuesday, which will push up the coastal price to 59,4 cents a litre. Oil companies will take the biggest cut, followed by the State in the form of customs and excise duties, and sales tax. The State-run Equalization Fund is used to help stabilize prices in a frequently fluctuating oil market. The retailer gets 6,2 percent. The percentage given for customs and excise duties includes amounts for the National Road Fund, stockpiling, fighting oil pollution, and for Sasol. On the Witwatersrand, the price on April 1 will be 64,6 cents/litre. Rail and pipeline tariffs, and additional sales tax of 0,2 cents/litre account for the increase over the coastal price.

Woman, weeps as tells of at

Staff Reporter

A GORDON'S BAY man facing four charges of rape and two of murder, forced a woman he had just raped and throttled to promise "before Jesus" not to tell the police, the Supreme Court heard yesterday.

Mr Israel Ficks, 26, is charged with raping four women and murdering two of them over a period of five years. He also faces one charge of robbery and one of attempted robbery.

He pleaded guilty to three of the rape charges, not guilty to both murder charges, guilty to robbery with aggravating circumstances, but not guilty to attempted robbery. On one of the murder charges, he pleaded guilty to culpable homicide.

A 40-year-old Gordon's Bay woman, who may not be identified, wept continuously as she described how she was raped in her own home on March 8. Mr Ficks had previously admitted raping and robbing her.

She said at home... man in h... tried to... leave. bu... the bed.

"I scr... grabbed... and star... and sque... "I felt r... knew I w...

She to... her strug... off as he... face and... with an... thought I... just die I... said

During... lost con... was not... been ra... came to... left. he... money... was very... had done...

The w... court her... ies had... During th... ferred frac... and at t... skull and... severe b... day.

"Every... down an... night I c... have to t... said

A youn... woman, v... admitted... ber, 1980... her child... when a m... door look...

She wer... when he... and found... sage whe... He thre... ground ar... conscious... "My child... and he s... her to ke... said. "B... speak as... pressing... realised I... kill me."

During... struggled... hit her i... throttled... conscious... times and... she had b...

She said... had made... impressio... children... all the tir... anyone...



A mock KO for the "champion" of local boxing enthusiasts, Mr Jossel Lipschitz, managing director of a motor company, from two world title boxing contenders, Bashew Sibaca and Jose Fernandes, who were among guests last night at the official opening of Cape Town's fully-equipped new boxing gymnasium at 51 Long Street. Fernandes, who made a bid for the world junior middleweight boxing title in Puerto Rico in 1977, now manages welterweight Manuel Jiminez, who will meet Mzwandile Biyana in Cape Town on Wednesday night. Jiminez will have a public sparring session at the new gymnasium from 1pm today.

One man, one vote to be proposed by West

Own Correspondent will be counted twice, says the politician.
BONN. — After the rejec-

Cape Times 26/3/82 From page 1 49

into effect next Thursday are:

● A 12,5 percent increase in domestic air

Buthelezi: Transkei a homeland

DURBAN. — The Transkei, Bophuthatswana and Venda should not be regarded as anything else but "homelands", the Chief Minister of Kwa-zulu, Chief Gatsha Buthelezi, said yesterday.

Chief Buthelezi said figures announced by the government in Cape Town this week on allocation of

FAMILY FOR
DORIM
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APRIL

ed by RABBI SIMCHA
INGER of Bnei Akiva
, plus GST
8,00, plus GST
s Jacobson 44 1171

DGES
ial Hotel

ONS

The fact that the Government proposes to increase the price of bread in October will definitely hit the black people harder. Blacks buy the same commodities at supermarkets as whites, but they were not earning the same salaries.

A Soweto sociologist, Mrs Joyce Siwani, said that it was "surprising" that people who earned more money should get the "bigger slice of bread" than those who earned starvation wages.

"Blacks are reeling under the already increased GST: Putco is to increase its fares, house rents have gone up and generally everything seems to be on the increase.

"How are our people expected to face all these things? The Government should have cut its expenditure on the army and increased our pensioners' allowances."

After all, she said, blacks could not be blamed for the "war situation in our country." As such, they should not be made to pay for that situation.

SACC's general secretary, Bishop Desmond Tutu, said the Government was using blacks to subsidise its apartheid policies.

ds cut out

as made it quite clear in Parliament that it does not see at homelands as part of

ch affects the nursing association. Any assurances given by the homeland would be forced into

Natal leader of the Progressive Party strongly criticised the Bill, pointing out that it was "cynical in the

no nurse practising her profession in a national state may belong to the Nursing Association.

ly that for its purposes self-governing states shall be deemed not to form

the Bill was yet "another experiment assuming the independence of self-governing states."

It's T time



HURRY, hurry, hurry if you want to join the crowds wearing The SOWETAN's extra-special T-shirts.

Already the medium-size has been sold out, but there are still some small and large sizes remaining.

The T-shirts have a trendy collar, are long wearing and have a small SOWETAN logo on the

MASSIVE UNPAID POWER BILL

Sowetan 27/3/82 95
HUNDREDS of Vaal complex residents owe the Oranje-Vaal Administration Board over R100 000 for electricity tariffs since the beginning of the year.

This shock announcement was made by the chairman of the Vaal Community Council, Mr Josia "Knox" Matjila, who warned that drastic steps would be taken against those who fail to pay.

Meanwhile, opposition groups have reacted sharply to the move and have criticised the council for imposing the electricity levy on people who did not make use of the project.

The chairman of the opposition Bafutsana Party, Mr Stephen Ntsoereng, said that most people did not make use of electricity and yet they were required to pay for it.

"The house rentals have recently gone up and so did the electricity tariffs. Where does the board and the council expect us to get the money from? This is exploitation of blacks by blacks."

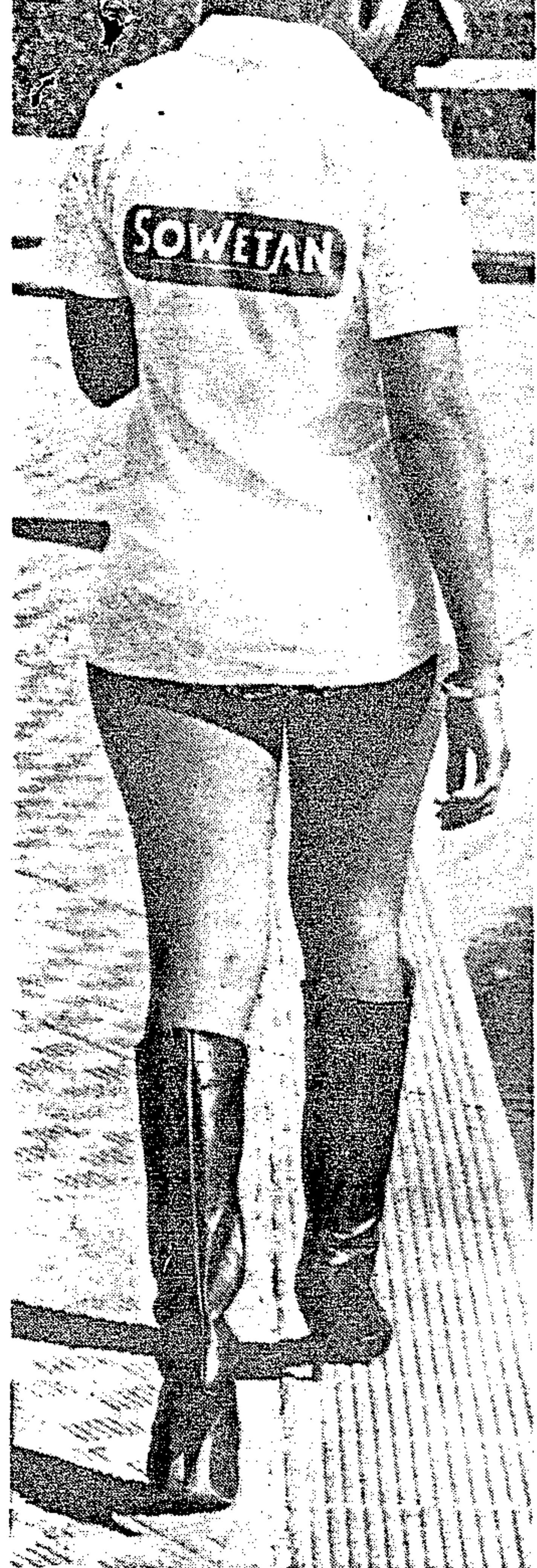
Vaal residents are expected to pay R40 deposit for connection fees and a basic fee of R7.50 monthly whether they use the electricity or not.

Mr Matjila explained that for some of the projects to be implemented the residents must be prepared to pay because "these things are meant for them."

If residents are not prepared to pay, continued Mr Matjila, then "we might as well close shop" because the time is ripe for blacks to start doing things for themselves.

The residents must pay an estimated R100 000 or else the supply will be cut off.

Residents should try and co-operate with the council so that "we can



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Already the medium-size has been sold out, but there are still some small and large sizes remaining.

The T-shirts have a trendy collar, are long wearing and have a small SOWETAN logo on the front, with a larger one on the back.

Sorry, there's no COD, so send R6 in postal orders or cash for each T-shirt you order. Give your name and address and state whether you want small or large sizes and post to: Promotions Department, The SOWETAN, PO Box 43003, Industria 2042.

Or you can obtain them from our offices in Johannesburg and Pretoria: Johannesburg — 61 Commando Road, Industria West; Pretoria — 6th Floor, Pretoria News Building, Vermeulen Street.

Meanwhile readers who ordered medium T-shirts after they had been sold out will be mailed large-size one, unless we do get other instructions during next week.

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Residents should try and co-operate with the council so that "we can implement most of the projects."

Mr Matjila said that he was not expecting house rents to be hiked for the better part of the year. However, certain projects which had been proposed by the council would be implemented.

A spokesman for the administration board said that it was necessary that residents should pay the money in arrears.

More fuel hikes likely

(55)
Industrial Week

30/3/82

LAST week's fuel price hike met with favourable reactions from the country's major transport operators, but further increases are feared this year.

Already the present price hike will be passed on to the final consumer but this will increase if the fuel price goes up again.

Leading transport operators said last week that the fuel increase was

"unexpectedly mild" but this did not mean that additional increases this year were unlikely.

In addition to the fuel hike, the shock tyre price increase earlier in March would send inflation rip-

ples throughout the entire economy.

The president of Assocom, Mr Gordon Stuart-Reckling last week queried whether the fuel hike would have been necessary if the Government had permitted the

By John van der Meer

private sector to participate in the procurement of oil supplies.

"Although the depreciation of the rand against the dollar has been given as a reason, it should be noted that the crude oil price on world markets has fallen by a greater amount," he said.

In addition, costs of international carriage of crude oil had also fallen in recent months.

The price of fuel in Germany has been reduced to the consumer.

"In the light of these facts the price of fuel should be falling — or should at least remain static," Mr Stuart-Reckling said.

The cost of fuel in running a fleet of trucks is crucial as it comprises between 30 and 35 per cent of a truck's total running cost.

Petrol Levy to Get Natal on the road

Political Reporter

THE brakes can be taken off development in Natal with the news that money will be available next year through a levy on petroleum products to unfreeze the construction of two vital national highways costing about R120 million.

The shortage of money in the National Roads Fund had resulted in the shelving of plans to complete the highway from Richards Bay to New Guelderland on the North Coast and from Frere to Van Reenen's Pass.

Natal allocates top priority to the Richards Bay roads because the Prime Minister asked specifically that services keep pace with development at the burgeoning harbour town. A total of R1 500 million will be spent there in development in the next five years.

The Department of Transport assigns top priority to the N3 because the highway carries traffic between South Africa's busiest harbour and the highly industrialised Reef.

Although money from the levy will become available on April 1 next year, the Department of Transport is going ahead with designing the roads.

A spokesman said yesterday the upgrading of the North Coast highway would cost probably between R50 million and R60 million.

Costs

26/9/82
55
Necessary
30/3/82

The building of the four-lane highway westwards from Frere would start probably early next year.

The surface would be either tarmac or concrete, depending on costs, and the project would be worth about R60 million.

Both major road projects would be scheduled for completion in mid-1986.

Mr Dering Stainbank, MEC in charge of roads, welcomed the news that money would be available for the two roads.

The Province had been trying for several years to have funds allocated to the roads, particularly the busy Richards Bay route.

He warned that motorists could expect further traffic jams in the Ladysmith area on the N3 if they did not stagger their return times on Easter Monday.

Last year vehicles queued for several kilometres waiting to buy petrol at Ladysmith before the 6 p.m. deadline.

D. R. Patch

1/4/82

Electricity ⁵⁵ cost to drop ⁴¹

CAPE TOWN — The cost of electricity to consumers will drop in industrial development points such as East London soon.

The government announced yesterday that it will subsidise the cost of electricity at these points, so that the tariffs would be equal to the Escom tariff applicable in the area of the Eastern Transvaal undertaking.

The government said it would pay a subsidy to municipalities to equalise the cost of electricity.

"In cases where municipalities are involved, this subsidy has to be passed on to all final consumers in the municipal area concerned,"

the government said in a white paper, which was tabled in Parliament.

It explained: "Municipalities and other bulk industrial consumers involved will, as in the past, pay the full tariff to Escom, but will subsequently be compensated by the decentralisation board and corresponding bodies in the independent states in respect of the difference between this amount and the amount calculated according to the Eastern Transvaal tariff."

The subsidy would not apply in cases where a municipality supplies electricity to other municipalities and-or other clients outside its area. — PC.

Electricity bills may drop by third

4/11/82
D. Rasphatch

49%

EAST LONDON — Household electricity accounts here and in King William's Town and Queenstown should be cut by up to a third when the government's electricity subsidy for the region comes into effect.

According to an Escom spokesman in Johannesburg yesterday, the tariff for the Eastern Transvaal is about 30 per cent less than for the Border undertaking.

The city electrical engineer here, Mr Ken Robson, said he would reserve comment on what effect the subsidy will have on ordinary household consumers until he had seen the details of the subsidy and exactly how it worked.

According to the government white paper on decentralisation concessions tabled in parliament on Wednesday, the subsidy will equalise the cost of electricity here with that of Eastern Transvaal.

He said the gross average for 1980-81 for the Border undertaking was 3,2410c a kilowatt hour of electricity sold while that for Eastern Transvaal was 1,9607c a kilowatt hour sold.

The subsidy does not alter Escom's tariffs for the region, which will remain the same. Escom consumers, such as the East London municipality, will still have to pay Escom for the full tariff, but as the white paper explains, the municipality will then be compensated by the decentralisation board on the difference between the Escom tariff here and the tariff in the Eastern Transvaal. — DDR

As a rough measure, this puts the cost of electricity in the Eastern Transvaal as a third less than on the Border.

"In cases where municipalities are involved, this subsidy has to be passed on to all final consumers in the municipal area concerned," the white paper said.

A Border Chamber of Industries investigation into the difference of electricity tariffs between Border and the Eastern Transvaal agrees with the 30 to 35 per cent difference.

VERY CANDIDATE MUST enter in column (1) the number of each question answered (in the order in which it has been answered); leave columns (2) and (3) blank.

	Internal	External
(1)	(2)	(3)
		$-\frac{1}{2}$
	3	+1
	11	+ 1/2
	10 1/2	
	48	(49)
Examiners' Initials		

Degree/Diploma/Certificate for which you are registered (e.g. B.A., B.Sc.) C.T.

Subject..... ECONOMICS 1B
(to be copied from the heading on the Examination Paper)

Paper No..... 1B
(to be copied from the heading on the Examination Paper)

NOTE CAREFULLY

1. Enter at the top of each page and in column (1) of the block on this cover the number of the question you are answering.
2. Blue or black ink must be used for written answers. The use of a ball point pen is acceptable. Red or green ink may be used only for underlining, emphasis or for diagrams, for which pencil may also be used.
3. Names must be printed on each separate sheet (e.g. graph paper) where sheets additional to examination book(s) are used.
4. Do not write in the left hand margin.

WARNING

1. No books, notes, pieces of paper or other material may be brought into the examination room unless candidates are so instructed.
2. Candidates are not to communicate with other candidates or with any person except the invigilator.
3. No part of an answer book is to be torn out.
4. All answer books must be handed to the commissioner or to an invigilator before leaving the examination.

Any dishonesty will render the candidate liable to disqualification and to possible exclusion from the University

the show were amazed yesterday saw the South African Broadcasting Corporation's television vans and with spotlights and cameras.

Visitors are also requested to think before they litter. Litter is expensive to remove so have a heart and use the bins.

Study Tour and Travel Fund. Nurses Denise Beaumont, 25, left, and

Die Koeberg

Two security guards at the Koeberg nuclear station died on Thursday after shooting.

Police liaison officer George Kershoff, security guard, aged 28, was appointed a group Mr Kershoff, said: "I have been shot for you for a

Two guards were fired and hit in the chest. He died on the spot. The other guard died of a bullet wound in the head. The police are being withdrawn because of the uproar. The woman later said she would testify. — Sapa-Reuter.

Rape 'victim' can prosecute

EDINBURGH. — The Scottish High Court has ruled that a 30-year-old woman who said she was raped and razed by three youths can bring a private prosecution.

This is the first time since 1909 that a private prosecution has been allowed in Scotland on a criminal issue.

Three youths have been arrested and the trial has been set for May 24.

There was a widespread outcry when charges against the youths were dropped after psychiatrists said the woman might commit suicide if forced to testify.

Mr Nicholas Fairbairn resigned in January as Scotland's Solicitor-General because of the uproar. The woman later said she would testify. — Sapa-Reuter.

Centre to spy on SA's oil sources

By RICHARD WALKER
NEW YORK. — The establishment of a centre to direct spying on South Africa's tanker traffic is to be discussed by Arab oil Ministers next week in a series of meetings with the chairman of the UN Apartheid Committee, Mr Yusuff Maitama-Sule.

Mr Maitama-Sule will visit Kuwait, Saudi Arabia and the United Arab Emirates, and then the Netherlands and Norway.

Methods of monitoring the leaky Opec oil embargo against South Africa have been mulled over for years, with very little results.

Last November, Kuwait voiced support for an embargo monitoring centre, charged with identifying and black-listing vessels serving

South Africa. Opec recommendations, agreed at ministerial level, called for the penalising of oil companies who supplied Opec products to SA.

They also advocated a tighter certification system to limit the switching and mid-voyage diversion of cargoes to the country.

Sources close to the project acknowledged the present oil glut, but stressed the goal was long-term.

However, they expressed doubts over the degree of Arab resolve.

As a Muslim as well as the representative of an Opec member — Nigeria — it was suggested that Mr Maitama-Sule could exert more pressure than previous Apartheid Committee chairmen.

60 000 fans to let loose

Mail Reporter

THE Country and Western Music Festival — one of the highlights of this year's Rand Show — starts in the main arena today at 11am.

Organisers hope to attract over 60 000 fans — double the gate at the first festival held last year — to the biggest Country and Western music show ever held in South Africa.

Guest stars will be Irish singer, Geraldine Brannigan — flown out for the show — and Cameron Mitchell, better known as Uncle Buck of TV's "High Chaparell" fame.

The festival starts with the Horizon Music Festival — a chance for up-and-coming Country and Western artists. At 12.30 sports stars and show personalities will arm-wrestle under the watchful eye of comedian Dennis McLean.

But the big action starts at 2pm — all South Africa's leading artists, including Barbara Ray, Bobby Angel, Tommy Del, and Gene Rockwell perform until 5pm. Singer Lance James is compere.

A lucky draw on tickets issued at the entrance will give two people a flight to Nashville, United States — the heart of C&W music.

Fugitive arrives

By STAN MAHE

MR MARTIN Radloff, fugitive company director said to have fled to South Africa, has not arrived, according to a former business associate living there.

And the South African police, who are searching for him, have so far found no evidence that he left the country on his own passport.

Mr Antonio Battaglini was Mr Radloff's co-director with the Botswana-based construction company, Be International, said yesterday haven't seen him and think I will. He is no fugitive.

Archbishop cheats death

LUSAKA. — The Catholic Archbishop of Zambia had a lucky escape when a pistol aimed at him failed to fire. The official Zambia Agency said yesterday.

The agency said Archbishop Milin tried to persuade three bandits to steal the car in which he was travelling in Lusaka Wednesday.

One of the bandits pulled the trigger, but the gun jammed. — Sapa

Archaeologist in row over relic

London Bureau

Derek Mahoney, an amateur archaeologist, has been jailed for defying an order to hand over a cross which he claims is the magical Glasnevin cross buried with the body of King Arthur. Mahoney found the cross on the grounds of a

mansion owned by Enfield Borough Council. He refuses to show it to anyone, or say where he has put it.

The council, which claims ownership, asked Mr Justice Croom-Johnson in the High Court to commit Mr Mahoney to prison for contempt of a court order made on Tuesday requiring him to hand it over.

After the hearing, council

lawyers said the original cross was said to be about a foot long. The one Mr Mahoney found measured seven inches.

But it bore the original Latin inscription which, when translated, read: "Here lies buried the famous King Arthur in the Isle of Avalon".

Mr Richard Mawrey, for Enfield Council, said the

Glastonbury cross was reputed to have been found by monks at Glastonbury in about the 10th Century with the tomb of King Arthur. Then it was lost.

Mr Mahoney, of Enfield, told the judge he would not hand over the cross to the council or the British Museum because of a long-standing dispute he had with the legal profession.

Use note stage on is now 8c

Have you thought of the Aged?
"This is their Year"



R320000

OR R1 000 FOR NEAREST CORRECT ENTRY

RULES

Send your entries — as many as you wish — with a donation of 25c for each entry to ST JOHN AMBULANCE CROSSWORD No 456, PO BOX 2012, CAPE TOWN, 8000. CLOSING DATE: 9 am, 14th APRIL 1982.

- 1 Only copies from newspapers, facsimiles or photostats are acceptable. Nothing else. No permutations. All entries to state name and address.
- 2 Cheques to be crossed. Name and address to be written on the back. Entries are disqualified if cheque is dishonoured. Do not put stamps on new postal orders as this may invalidate your entry.
- 3 Do not send registered letters. Do not enclose coins or banknotes in postal entries. Do not use pins, staples or adhesive tape. All entries and sufficient fees must be in one envelope. Any envelopes received bearing a postal tax mark will not be accepted, but will be returned to the post office.
- 4 Late entries will be disqualified and treated as unconditional donations.
- 5 The decision of the organisers is final, and no correspondence will be entered into. No judges reasons will be provided.

ACROSS

1. A — may get a person on his feet again **PILL/PULL**.
2. Language used by might be hard for to understand **LAB/LA**.
3. — may be constant shaped till they are **TALES/TALKS**.
4. — could bring ne sights to a p **AGE/AWE**.
5. Give medical atten. **TREAT**.
6. Icy wind may well — **ROVER/ROWER**.
8. Coin or ready : **CASH**.
10. Perceive with the **SEE**.
12. It's only a certain person who would for a really colour **LIE/TIE**.
13. Thanks to criticism, provement might b. to — **SCORES/STC**.
14. Famous Brazilian p **PE**.
16. It could well be when — has a **TASTER/TESTER**.

WIN ONLY 25c

ER BOOKS A C A M

Hostel residents without electricity

RESIDENTS at Soweto's Mzimhlophe Squatter Camp have been without lights for three months now - because they consume "too much" electricity.

And the residents say they are being made to pay electricity bills despite the fact that their lights have been cut off. Some told **The SOWETAN** that the black-outs were causing a high crime-rate in the area.

They said a delegation which consulted the township's superintendent on the matter was told the hostel was using "too much" electricity. But, the residents complain, their rent has not been reduced although they have no lights.

But Mr H Brophy, Diepmeadow Council's chief executive officer said lights had been cut off because it was costing the council "a lot" to maintain electricity at the hostel. He said vandals had damaged cables and globes "that is why we decided to cut the electricity off".

"Electricity in that area was costing us too much. I'm aware that the residents were not responsible for the damage of cables and globes. Thugs from

neighbouring areas were responsible for this vandalism," Mr Brophy said.

He said he would investigate the matter.

A resident, Mrs Nancy Dube, said: "Why don't they reduce the rent since we are not using any electricity. We have been paying the same rent as we did when the electricity was on. The place has become dangerous and many residents are being robbed at night. Every weekend somebody gets murdered in this place, and residents are now afraid to move around at night."

Another resident, Mr Moses Madliwa, said he could no longer watch his TV because of the black-out. He said residents had to collect money for candles to light dark passages in the hostel. He said their complaints to the authorities had proved futile.

Mrs Busi Tshabalala said: "The funniest thing is that inmates in the neighbouring men's hostel are not affected by the black-out. Their electricity is functioning without any problems, while this side we are made to suffer".

R106m for SA nuclear research

Atomic energy spending boost

55 ROOM 7/4/82

By JOHN MULCAHY

EMBATTLED uranium producers can draw some solace from the increasing faith in their product shown by the South African Government.

In the face of a depressed and oversupplied market, and in spite of a commitment to constrain spending, the Department of Mineral and Energy Affairs has been allocated a 54,9% increase in funds for the Atomic Energy Research Fund — to R106 171 000 in fiscal 1983 from R68 526 000 last year.

The printed estimates of expenditure tabled by the Minister of Finance, Mr Horwood, in Parliament show that current expenses on uranium enrichment are expected to rise by 32,2% to R85-million from R64 300 000, and total estimated expenditure on uranium-related activities will jump to R315 558 000 from R250 235 000 in the year to March 31.

An indication of how important the Government views the future of nuclear power is that more than two-thirds of the Department of Mineral and Energy Affairs Budget for the current year is absorbed by uranium research.

However, it is incorrect to assume that this largesse on uranium extends to the producers.

In a message to gold and uranium producers that the strongest in the industry would have to support the weakest, Mr Horwood described the increase in the tax surcharge on gold and diamond mines to 15% from

5% as a means of generating revenue to help finance the Gold Mines Assistance Scheme.

Although the increased tax is expected to raise an additional R115-million, provision for State aid for the current year is R36 600 000 against a mere million rands in last year's Budget, and calendar 1981's actual aid of R26 900 000 (a Chamber of Mines figure).

It is perhaps significant that the disparity between the surcharge raised and total State aid of R78 400 000 more than covers the R65-million increase in uranium research spending.

The concept of State aid remains in a state of flux, with at least one major mining house advocating sweeping changes to the scheme.

Nine mines now qualify for State aid — Gencor's Stilfontein, West Rand Cons and Leslie; Rand Mines producers ERPM and Durban Roo-depoort Deep; Anglovaal's ET Cons and Loraine; Gold Fields Venterspost; and independent Wit Nigel.

The argument against State aid in its present form is really opposition to subsidies in any form. The argument favours a free-market "dog-eat-dog" approach.

Such a system, it is argued, would free the funds allocated for aid to further develop more profitable deposits.

It is held that the expansion of these operations would absorb any labour retrenched from unprofitable mines, at the same time increasing production to offset the loss of output from producers forced to close.

Although this is only one facet of the discussion on State aid, it is clear that the Government is concerned about the present form of the system. Last year it appointed an inter-departmental committee to study State aid.

As the development of uranium enrichment gains momentum, the search for oil has taken a back seat, and for the year to March 1983 Southern Oil Exploration Corporation (Soekor) has had its allocation cut by more than R10-million to R67 533 000 from R78 249 000, a decline of 25,8% in real terms if inflation is taken at 14% this year.

Another area to fall under the axe is the Cabora Bassa project, loans for which have been slashed by 47,6% to R2 880 000 from R5 500 000. Research on factors affecting present and future demand for energy is expected to cost R1 390 000 this year against R628 000 in the year to last March.

Emerging from the Budget estimates is further evidence of the priority being afforded to energy in all forms, with the Department of Mineral and Energy Affairs being granted an increase of 23,9% in budgeted expenditure, a real increase of almost 10%.

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NUCLEAR POWER

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Bouncing back

FM 9/4/82

The over-publicised difficulties of the US nuclear power industry, especially the Three Mile Island mishap, have diverted public opinion worldwide from the commanding position that America still occupies in the generation of electricity from nuclear reactors. This conclusion, which has obvious positive implications for the SA uranium industry, stands out clearly from copious statistics quoted in a recent bulletin by the Atomic Industrial Forum, a pro-nuclear US "think-tank."

At December 31 1981, there were 78 US reactors with operating licences and a total capacity of 59 000 MW. Trailing a very long way behind (although its figures refer to the end of 1980, admittedly) was Japan, with almost 15 000 MW of nuclear-powered generating capacity. Close behind (also on 1980 figures) was France, with 13 000 MW. Then came the Soviet Union with some 10 500 MW, West Germany with 8 900 MW and the UK with 6 400 MW.

But the giant US industry is, in effect, coasting on past momentum, as the safety issue has choked off new orders for nuclear generating capacity completely. The peak year for US growth in nuclear power was 1973, when 41 reactors were ordered. The following year (1974) 26 were ordered, and then came the collapse. In the four-year period 1974-1978 only 13 in all were ordered, and none since. At December 31 1981, including those already operational, total commitments were 166 reactors with a planned capacity of 158 000 Mw.

The impact of the projected growth of US nuclear capacity is significant for the uranium market. On "mid-case projections" for nuclear power, US annual demand for uranium will grow from some 13 000 t to nearly 20 000 t in 1985 and nearly 24 000 t in 1990.

At December 31 1980, the rest of the world had 179 reactors operable, with total capacity of nearly 80 000 MW. Total commitment were for 608 reactors with a grand total of almost 470 000 MW for the world outside the US. But expansion pro-

grammes are somewhat lopsidedly concentrated. France intended adding 25 000 MW by 1985 and a further 28 000 MW by 1990. Japan planned an extra 15 000 MW for 1985 and another 23 000 MW by 1990. The Soviet Union aspired to 24 000 MW by 1985 and a startling addition of 56 000 MW from 1985 to 1990.

The AIF notes that conventional power plants enjoyed a growing cost advantage over nuclear plants in the US during 1981 on the construction side, but a steady, and "eventually decisive," advantage for nuclear on the over-all power production side, because of lower fuel costs. The fly in the ointment continues to be interest charges during the "inordinately long" construction lead time for nuclear units — 10 to 12 years according to the latest estimates. A study by the US Department of Energy shows that total nuclear generating costs will be 9% lower than coal in the 1990s. But if four years could be cut from construction periods, the nuclear advantage would grow to around 30%.

On the safety issue, the Nuclear Regulatory Agency issued three operating permits during 1981, but suspended one — for the Diablo Canyon unit in California, while the damaged plant at Three Mile Island remained closed. During the year orders for six reactors were cancelled and 44 delayed.

But part of the throttling back must be blamed on the general economic condition, as there were substantial cancellations and delays with conventional generating plant, too.

The most serious threat to further growth in nuclear power is not environmental concern, however, but the combination of two purely economic factors — an intensification of the current world depression which would choke off rather effectively the demand for any kind of additional power plants. The second would be a further substantial drop in the real price of oil persisting over an extended period. This would obviously undercut all plans to economise oil — to a lesser or greater extent. So the motivation to go nuclear would also be reduced too.

RED CONSUMERS PREPARE FOR ANOTHER ROUND OF INCREASES

Price of petrol could be cut by 13c if Govt dropped unfair taxes

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S. Express

11/4/82

UNFAIR taxation at the petrol pumps — which adds between 3,7c and 13,5c to each litre of petrol — could be reduced, according to Opposition spokesman on Mineral and Energy Affairs, Mr John Malcolmiss.

About 35% — or 23c in every litre — is channelled either directly or indirectly into government and government-controlled coffers.

And if South African motorists were not "unfairly taxed" at the pumps the price of petrol could be reduced, Mr Malcolmiss said.

When the petrol price went up by between 2,2c and 3c recently it represented at least the ninth increase foisted on financially hard-hit motorists in 10 years. Economists predict another increase later this year. In 1971 petrol cost 10c a litre. Today it costs more than six times as much.

This means that an average 50l fuel tank, which cost about R5 to fill in 1972, will



● Minister F W de Klerk ... accused of 'hogeymant'

now slump up R32,30. Motorists on the Witwatersrand pay a pump price of 64,6c a litre for premium petrol, which includes a 5c rillage fee and about 3c sales tax. Their coastal counterparts pay 59,4c — 2,9c of

BY ARIENE GETZ

which goes to the Government as GST.

In four years — between 1976 and 1980 — the railways took in almost R437-million by transporting petrol from the coast to the Reef.

Retail garage owners receive 3,7c for each litre sold and 32,659c covers the price paid for the oil and provides profits for the oil companies.

The legislative secrecy that surrounds every aspect of South African fuel purchases keeps secret the amount the Government pays for its oil, so the exact breakdown of the oil companies' profits is not known. Oil companies working in South Africa are believed to have been making profits of hundreds of millions of rands, but a spokesman for

the Department of Mineral and Energy Affairs told the Sunday Express this was not necessarily the case.

"Every year we look at the profitability figures for the oil companies," he said. "These are below the figures normally regarded as reasonable for price-controlled conditions."

While the international companies are proprietary and therefore not obliged to publish trading figures, those made known by the country's two public companies, Trek and Sasol, give some indication of the vast sums involved.

Last year Trek — which has only a 5,5% to 6% share of the country's market — released figures showing its profit leapt 63% in 1980 to an after-tax figure of R10 600 000.

The remaining 20,141c paid for every litre goes to the Government — 9,8c to the equalisation fund and

10,341c elsewhere — customs duty (0,091c), National Road Fund (2,35c), stockpiling (0,220c), combating of pollution (0,055c), excise duty (3,896c) and 3,725c for the State Oil Fund, which helps to finance at least one of the Sasol projects.

"How much of that Sasol money is necessary?" asked Mr Malcolmiss.

"When Sasol shares were put on the market they were oversubscribed 31 times.

"Perhaps the Government should have allowed more people to buy those shares instead of taxing every motorist," he suggested.

Mr Malcolmiss also questioned the necessity of the 9,8c put towards the Government-created equalisation fund, which is used to try to counter fluctuations in the international exchange rate.

"Nobody knows the position with this fund," he said. "But I feel that the collection of this is unrealistic in

view of the tremendous price of oil and that the latest price increase will play a major role in contributing to inflation."

Mr Malcolmiss said that he asked in Parliament what percentage of the country's fuel consumption came from internal sources such as Sasol, but he did not receive an answer.

He also accused the Minister of Mineral and Energy Affairs, Mr F W de Klerk, of making the weakened dollar/rand exchange rate into the 'hogeymant' of the price increase.

"This weakening was part of a deliberate financial strategy and should not be blamed now," he said.

When Mr de Klerk announced the price increase last month, he said that despite a drop in the overseas price of crude oil and the glut on the world market the rise was unavoidable because of the change in the

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US firms helped SA acquire uranium

ARGUS

13/4/82

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Argus Bureau

WASHINGTON. — Two American firms played a key role in South Africa's acquisition of almost 100 tons of enriched uranium in defiance of United States Government policy.

Edlow International, of Washington DC, and SWUCO Inc, of Rockville, Maryland, acted as brokers between South Africa and uranium suppliers and enrichers in Switzerland, Belgium and France.

The uranium, now in France, is being made into fuel rods for the first of South Africa's two nuclear power plants near Cape Town. It is to be shipped later this year.

The story of the uranium has almost as many twists and turns as a suspense novel.

Reports published last November said that China was the supplier, and Canada was also mentioned.

CONCERNED

American officials were concerned that the sale was undercutting American efforts to get South Africa to sign the nuclear non-proliferation treaty and agree to international inspection of all its nuclear installations, including a uranium-enrichment plant now under construction.

In 1974 the United States contracted to supply South Africa with enough enriched uranium to run the two Cape Town plants from 1981 to 2010.

That was before South Africa's refusal to put all its nuclear installations under the 'full-scope safeguards' required by the

Non - Proliferation Act which the United States Congress passed in 1978.

As a result of the Act, the United States held up the uranium shipments — which would have made South Africa unable to start up either of the Cape Town reactors.

Then the world-wide rush to build nuclear power plants slowed down. Coupled with the international business slowdown, that left industrialised nations with excess uranium.

DELAYED

The Swiss and the Belgians held some of the excess uranium because they had overbought for nuclear power plants whose construction was being delayed.

About a year ago Escom made it known that it was ready to pay a premium price for uranium to start up at least one of its reactors.

Edlow and SWUCO bought the excess uranium from Switzerland and Belgium. They then turned it over to two European enrichers — one a consortium called Eurodif, the other unnamed — to be enriched into usable fuel and sold the uranium to South Africa.

Edlow and SWUCO are doing nothing illegal under American law. They are not even required to report the deal to the State Department.

'All we did was act as broker, buying the uranium as excess stock in Belgium and Switzerland,' said Mr Jack Edlow, president of Edlow International.

NO LAW

He added: 'Our business is to match buyers and sellers, and since everybody is sitting on excess uranium, that wasn't too hard to do.'

France has no law requiring 'full-scope' safeguards but does require inspections to ensure that French fuel is not diverted to make weapons.

A high-ranking French diplomat in Washington said: 'France does not believe the Cape Town reactor plays any part in any South African weapons programme. We think the reactor will be fully safeguarded after it gets its fuel from France.'

To complete the circle, South Africa has just arranged to sell some of the uranium it is buying through Edlow, but does not need, to the United States — which will then enrich it and sell it to Japan.

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DANGEROUS: Mr Nick Mtali.

Tshiwelwelo nightmare!

By LEN MASEKO

WALKING around at night has become a nightmare for Tshiwelwelo residents since the township's streetlights went off about two months ago.

And residents living in the area claim that many people have fallen victim of night prowling thugs. This, they said, had resulted in residents who work until late in the evening forming groups to protect themselves against the thugs.

The residents told **The SOWETAN** yesterday they had complained

about the streetlights to the township's superintendent "who promised to look into the matter, but nothing has been done up to now".

But the superintendent, Mr J Rothman, told **The SOWETAN** that he was not aware that the township's streetlights had not been working but said he would investigate the matter.

A resident, Mr Nick Mtali, said: "There has been a spate of robberies in the area, and now residents are frightened to walk around at night. We are even afraid of sending

our children to shops because we fear for their safety."

Mrs Annah Tshillo said she had lodged a complaint about the lights but was told they would be fixed in two weeks' time. But, she said, two weeks passed without the streetlights being repaired.

Mr Sid Mgorosi said: "We residents who knock off late in the evening, have become deeply concerned about this. We have formed groups to protect ourselves from thugs on our way back from work. Innocent people have fallen victim to the thugs".



COMPLAINTS: Mrs Annah Tshillo.

(55) Star 14/4/82

Pressure on SA to sign nuclear pact

The Star Bureau

WASHINGTON — The Reagan Administration says it is "pressing" the South African Government to accept full safeguards for its Valindaba uranium enrichment plant, and to sign the Nuclear Non-Proliferation Treaty.

And the administration believes "such efforts are best served by dialogue in a non-confrontational environment."

These points were made in a comunique issued yesterday by the State Department in response to a question over the key role United States brokers played in helping South Africa buy almost 100 tons of enriched uranium in contradiction of current United States Government policy.

In terms of a 1974 agreement, the United States undertook to enrich uranium ore to be used for the fabrication in France of fuel rods for South Africa's Koeberg nuclear power station.

But because of the provisions of the 1978 Nuclear Non-Proliferation Act, the administration was precluded from allowing the export of the enriched uranium.

So, while South Africa's Electricity Supply Commission was obliged to provide the fuel for enrichment (or face heavy penalties), it had to look elsewhere for the enriched fuel that would be needed to start-up Koeberg on schedule.

Yesterday the Washington Post reported that two American uranium brokers, Edlow International of Washington and Swuco Incorporated of Rockville in Maryland, acted as brokers between Escom and suppliers and enrichers in Switzerland, Belgium and France.

Later yesterday the State Department said the United States could not allow the export of fuel for Koeberg unless South Africa adhered to the Nuclear Non-Proliferation Treaty.

US uranium brokers' key role' revealed

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 Jan 14/4/82
 [initials]

WASHINGTON — United States firms played a key role in South Africa's acquiring almost 100 tons of enriched uranium in contradiction of United States Government policy opposing such acquisition, according to the Washington Post.

The two firms are Edlow International of Washington DC and SWUCO Inc of Rickville, Maryland, which acted as brokers between South Africa and Uranium suppliers and enrichers in Switzerland, Belgium and France.

The uranium is now in France being made into fuel rods for the first of South Africa's two nuclear power plants near Cape Town. It is to be shipped to Cape Town later this year.

The story of the uranium has almost as many twists and turns as a suspense novel.

Reports published last November claimed China was the supplier. Canada was also mentioned in nuclear circles as the source.

American officials were concerned that the sale was undercutting United States efforts to get South Africa to sign the Nuclear Non-proliferation Treaty and agree to international inspection of all its nuclear installations.

The story begins in 1974, when the United States contracted to supply South Africa with enough enriched uranium to run the two Cape Town plants from 1981 to 2010.

That was before South Africa's refusal to put all its nuclear installations under the

The saga of South Africa's efforts to procure enriched uranium for its first nuclear installations goes back eight years. Pretoria's refusal to sign non-proliferation agreements made its quest almost impossible. The Washington Post claims United States firms played a key role in solving this nuclear dilemma.

"full-scope safeguards" required by the Non-proliferation Act which the United States Congress passed in 1978.

As a result of the Act, the United States held up the uranium shipments — a delay which would have made South Africa unable to start up the Cape Town reactors.

Then the world-wide rush to build nuclear power plants slowed. This, together with the world-wide business slow-down, left industrialised nations with excess uranium.

The Swiss and the Belgians held some excess uranium because they had overbought for nuclear power plants which were delayed.

About a year ago the South African Electricity Supply Commission (Escom) made it known it would pay a premium price for uranium.

Edlow and SWUCO bought excess uranium from Switzerland and Belgium. They then turned it over to two European enrichers — one a consortium called Eurodif, the other unnamed — to be enriched into usable fuel, they then sold the uranium to South Africa.

Edlow and SWUCO are doing nothing illegal under United States law.

"All we did was act as broker, buying the uranium as excess stock in Belgium and Switzerland," said Jack Edlow, president of Edlow International.

He added: "Our business is to match buyers and sellers. And since everybody is sitting on excess uranium that wasn't too hard to do."

Senator John Glenn, one of the authors of the Non-proliferation Act and a member of the Senate Subcommittee on Nuclear Proliferation, doesn't see it that way.

In a letter to Secretary of State Alexander Haig, the Senator has demanded to know how United States firms could act as middlemen in the sale of uranium to South Africa when the United States Government is prohibited from making the sale.

Senator Glenn told Mr Haig: "That a United States firm may have contributed to defeating the non-proliferation policies of its own Government is deeply disturbing."

France has no law requiring "full-scope" safeguards on nuclear plants but does require inspections to ensure that French fuel is not diverted to make weapons.

A high-ranking French diplomat in Washington said: "France does not believe the Cape Town reactor plays any part in any South African weapons programme."

To complete the circle, South Africa does not need 1350 kg of the uranium it is buying through Edlow. It has arranged to sell this to the United States — which will then enrich it and sell it to Japan.

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(55) C. Times 15/4/82

W Cape to get giant hydro-power scheme

Municipal Reporter

SITE investigations and exploratory drilling are already under way in the Palmiet River area for a massive R233-million hydro-electric and water-transfer scheme.

The dual-purpose scheme is a joint Electricity Supply Commission (Escom) and Department of Environmental Affairs project which will supplement the Steenbras reservoir by about 30 million cubic metres of water a year for use in the Cape metropolitan area.

The scheme consists of two new reservoirs and turbines which can be used to generate 400 Mw of electricity — more than twice the output of Cape Town's Steenbras pump-storage scheme.

White paper

The new scheme — which has been described in a White Paper in Parliament — follows Cape Town's highly successful 180 Mw Steenbras project, the first of its kind in Africa.

When the Cape Town City Council project was

being planned, Escom expressed reservations and warned of potential pitfalls. Its prediction that it would not be viable proved incorrect, with the Steenbras scheme proving far more economic than the council originally planned.

Escom said yesterday that pumped storage was one of the few effective ways in which South Africa could use its limited water resources to generate electricity. When used for a dual purpose, namely to act as a pump storage scheme and to supplement water supplies, the added advantages were obvious.

Battery

A pumped storage scheme can be compared with a battery in that large amounts of potential energy can be stored in the form of water in an upper reservoir which can be released via a power station to a lower reservoir to generate electricity.

A spokesman for Escom said that if work started this year, the scheme

would be completed by 1988.

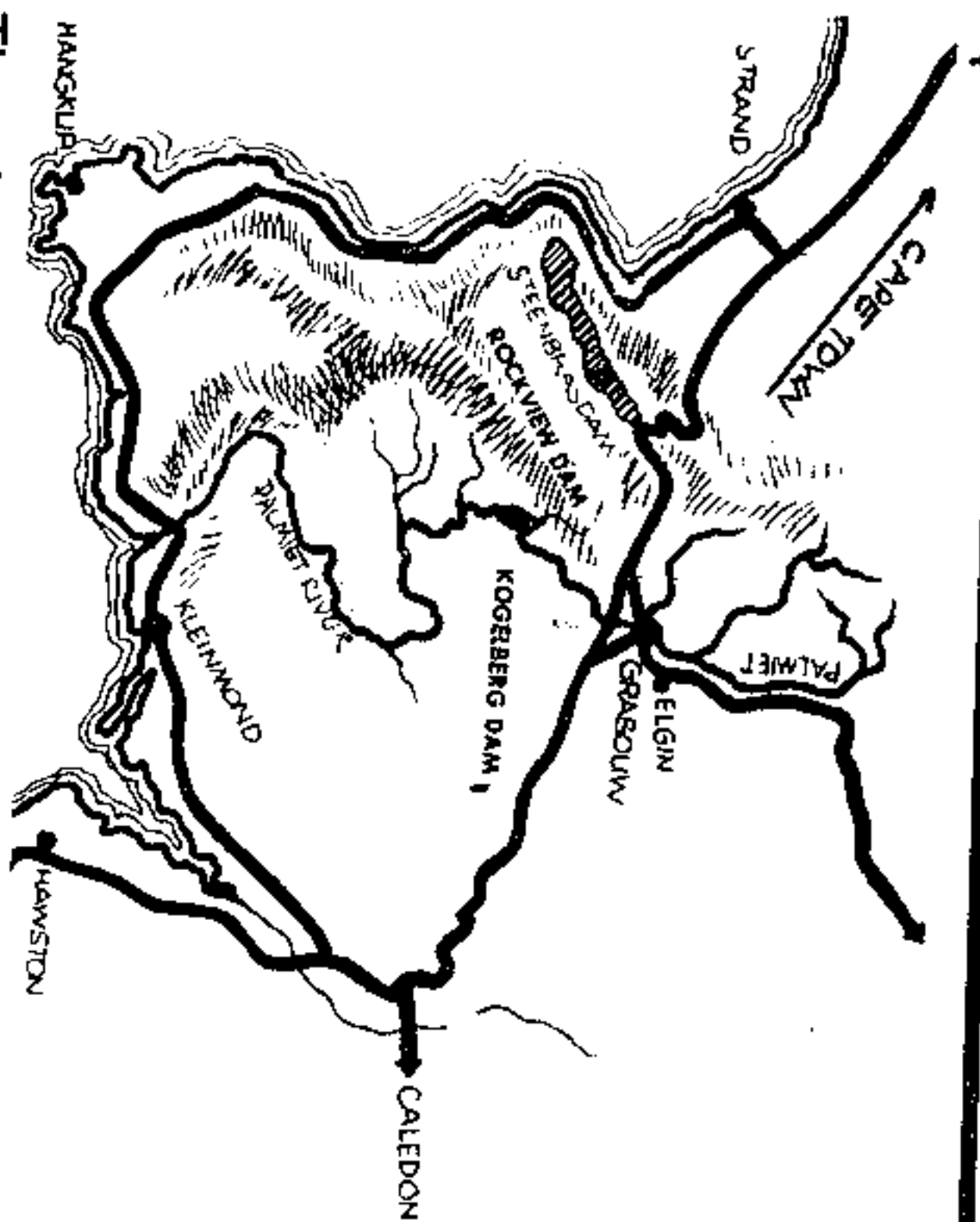
Escom is responsible for building the power station and the Department of Environmental Affairs the reservoirs.

According to Escom, the two reservoirs will each have a storage capacity of 15-million cubic metres. Water from the lower one, Kogelberg, on the Palmiet River will be pumped via a two-kilometre tunnel to the upper reservoir in the Rockview area during off-peak hours.

Excess

More water than is required for power generation will be pumped and the excess will then be released to the upper Steenbras Dam to supplement Cape Town's water supply.

During peak hours in the day, water from Rockview will be released through the same tunnel to the power station and returned to Kogelberg. During this release of water, the power station pumps act as turbines which then drive the generators providing up to 400 Mw of power.



The site of the new Palmiet hydro-electric scheme with two new reservoirs, Rockview and Kogelberg.

Conservation a priority

Municipal Reporter

EXTENSIVE investigation has been undertaken to ensure that the Kogelberg State Forest with its beautiful fynbos is not adversely affected by the planned Palmiet hydro-electric project.

A spokesman for Escom said yesterday that the environmental aspect would enjoy the same priority as with the now completed Drakensberg scheme in the Tugela River basin.

A Palmiet River Environmental Committee investigated the likely positive and negative impact on the area, and proposed measures to preserve the natural beauty of the site and its environs.

The committee concluded that the scheme could go ahead provided its recommendations were implemented. The main disadvantage, according to Escom,

Strand to get Escom houses

Staff Reporter

ESCOM is to build an initial 150 houses in the Strand for white employers working on the Palmiet hydro-electric scheme.

Construction will begin in July this year, at a rate of about ten houses a month. Once the main contract is awarded next year further houses are to be built.

A public relations officer

of Escom, Mr R W Herbert, yesterday estimated that about 250 houses in the Strand would eventually be available for staff working on the hydro-electric scheme.

About 100 houses for coloured workers would be built near Grabouw. He expected that more would be built in July next year. About 400 houses would be required altogether.

Empty houses

Most housing would go to coloured and white workers, while temporary housing for black workers would be built near Grabouw, he said.

Completed houses would stand empty until July next year. Mr Herbert explained that this was because construction workers would be moving in only when the main construction contract had been finalized in July.

Yesterday, Strand town councillors reacted favourably when shown slides of the type of housing that Escom would build in the Strand.

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By JOHN MULCAHY
VEREENIGING and Volksrust/Amersfoort are the sites for two huge new R2 500-million Escom power stations, which together will generate enough power to supply six cities the size of Johannesburg.

Designated power stations "D" and "E", the 3 600-MW units will require the establishment of two new coal mines, each costing at least R350-million.

The first coal deliveries to station "D" will start in 1988, while station "E" is scheduled to start generating power in 1989.

The final cost of the two power stations is likely to exceed R4 000-million each in inflated terms, while the final cost of the new mines will probably exceed R500-million each.

Escom has also announced that the output from the Lethabo power station, now under construction, is to be

expanded to 3 600-MW from 1 800-MW.

Station "D" will be erected between Volksrust and Amersfoort in the south-eastern Transvaal, and station "E" will be situated south of Vereeniging in the Vaalbank area.

It has been estimated that Escom will spend an average of R3 000-million a year in current money terms until the end of the century on expanding power supply, or a total of R200 000-million in nominal terms at an inflation rate of 10% a year.

According to Escom, the new stations will incorporate strict anti-pollution control measures.

The Rand Mines group has been awarded a contract to supply coal for power station "D", with deliveries starting in 1988 and building up to just under 11-million tons a year when the station reaches full generating capacity in 1994.

A Rand Mines spokesman, Mr Allen Cooke, said yesterday the new mine would have a life of 40 years, and provide employment for 2 500 people.

Anglo American Coal Corporation (Amcoal) will supply the coal for station "E" from a new colliery on the Cornelia coalfield to the south and west of the existing Cornelia colliery.

The new Amcoal colliery will supply a total of 600-mil-

lion tons of coal over 40 years and the group's New Vaal Colliery, which is being established to supply the Lethabo station, will also supply 600-million tons over 40 years.

With these two collieries and the New Denmark Colliery now being developed near Standerton to supply the Tutuka power station, Amcoal will be responsible for supplying coal for 10 800-MW of new Escom generating capacity, involving 40-million tons a year at full output.

Escom has a present installed power capacity of 21 000-MW, and it is estimated that about 72 000-MW will be required by the year 2000.

Escom plans vast R5 000m expansion

RDM 16/4/82

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By SHELAGH
BLACKMAN

ELECTRICITY in Port Elizabeth will be only about 9% cheaper as a result of the Government's new economic deal for the Eastern Cape, the city's electrical engineer, Mr C E Adams, said today.

And he believes that the small decrease is because planners "forgot" that Port Elizabeth receives only 30% of its electricity from Escom and generates the rest itself.

A Government White Paper giving incentives to encourage decentralisation in the economy provided for a 30% Escom tariff rebate for the Port Elizabeth-Uitenhage complex.

PE electricity will be only 9% cheaper'

It was stated that where municipalities benefited, they should pass on their windfall to all consumers.

In terms of the rebate, the tariff will be the same as in the Eastern Transvaal — about 30% lower than that charged to the Eastern Cape undertaking.

In an interview, Mr Adams emphasised that the 9% figure was provisional.

He said Port Elizabeth was the only area earmarked for concessions which generated some of its own power. This meant that the Escom rebate of 30% would be less helpful in the city than elsewhere.

"I think they forgot that we don't buy all our electricity from Escom," he said.

However, the municipal-

ity would press for a reduction in the price of coal — perhaps in the form of a rail rebate — to reduce the cost of the power generated at the Swartkops Power Station, he said.

Mr Adams could not say when the reduced tariff would come into operation.

If the municipality obtained a rebate for April then this would be passed on the consumers in the form of an arrears payment in May.

Should the electricity tariffs be reduced by the proposed 9%, then consumers will be paying less for their electricity than they did last year. In January, the tariff was put up by 6% in Port Elizabeth.

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E Post 16/4/82

'Kibbutz' for Jo'burg elderly

Mail Reporter

A PLAN to create a model retirement kibbutz for senior citizens of South Africa is being undertaken for 1982 — the Year of the Aged.

The plan is to provide young-at-heart pensioners with new motivation in their retirement.

A plot for the scheme has been donated by a parishioner of the Catholic Church in Johannesburg and is situated in Boskop, Randburg.

Mr Tony Busuttill, chairman of the Friends of the Senior Citizens Foundation, hopes to enable the elderly to become self-supporting within this community. The able-bodied will be taught care-taking maintenance and fresh produce will be sold to lessen dependence and provide extra income.

Indoor and outdoor benefits are planned and pensioners will pay for housing according to their income. Many pensioners are unable to remain independent in the city because of large rent hikes that are forcing them into old age homes.

The scheme is already a working experiment in countries in Europe.

Mr Busuttill says the aged are treated as 'has beens' by the authorities with few welfare benefits. He said they should be given the security they strive for during their working lives and suggested the Government inquire into how little is being done for the aged.

Anyone wishing to support the project, which is being undertaken by volunteers, should contact Mr Busuttill at P O Box 48523, Franklin Roosevelt Park, Johannesburg.

SA nuclear deal not illegal — US Govt

By RICHARD WALKER

NEW YORK. — Two American uranium brokers who negotiated a secret deal to supply SA with enriched uranium did nothing illegal and face no punishment, the US State Department asserts.

The enriched ore is now in France, being fabricated into fuel rods for shipment to SA later this year to start up the first of the Koeberg power plants.

Heading an expected storm of protest, Senator John Glenn, former astronaut who leads the opposition Democrats in energy and nuclear proliferation affairs, called the matter "deeply disturbing" and demanded an

inquiry into how US companies could have played such a role in defeating their government's non-proliferation policies. All enriched uranium in the US is government-owned.

But a State Department spokesman confirming details of the case, said there was nothing illegal in the brokerage operation, since the uranium had been bought and enriched outside the US.

But he insisted the US would maintain its eight-year ban on supplying enriched ore until SA signs the nuclear non-proliferation treaty and agrees to put all its nuclear plant under safeguards, including international inspection.

How SA beat the ban had been the

centre of wild speculation for more than six months, but now two US firms openly admit their key roles.

They are Edlow International and Swuco, both based near Washington.

Responding to an appeal from Escom, which desperately needed the fuel, their task "was not too hard" because of the excess uranium in circulation as a result of the industry's current woes, said Mr Jack Edlow, Edlow's president.

"We simply acted as brokers and bought the uranium as excess stock in Belgium and Switzerland."

The brokers say the uranium went to European enrichers — they identify one as Eurodif Consortium.

'Norma' star ill

MONTSERRAT Caballe, the famous Spanish soprano, is ill and tomorrow's performance of "Norma" at the Civic Theatre in Johannesburg has been cancelled.

Pact, who brought Madame Caballe to South Africa specially for the title role, cancelled last night's performance when her doctor said she could not sing.

Mimi Coertse, who sang the role in the Pretoria season, is not available as a replacement.

Opera lovers who bought tickets for these performances can return them to their nearest branch of Computicket, where they will be refunded.

The final performance of "Rigoletto" with Lawrence Folley in the title role will take place tonight as scheduled. — Sapa.

Spend more on fighting TB, expert urges Govt

By JOHN MOJAPELO

A SOUTH African expert on tuberculosis yesterday urged the Government to spend more to combat the killer disease.

Prof E Glatthaar, head of the Department of Community Health at the Medical University of Southern Africa, was speaking at a Press conference.

More than 500 delegates are meeting at the university near Pretoria to attend an international conference on TB in the 80s.

Prof Glatthaar is the chairman of the conference's organising committee.

He said the small subsidy granted by the Government to combat the disease was a great problem.

When the Minister of Fi-

nance, Mr Owen Horwood, allocates money for particular projects, TB must be given top priority, he said.

"Even if we get less than what we are getting, I would wish our cash flow to be constant," Prof Glatthaar said.

He said unlike other diseases, such as cholera, TB was not a dramatic disease. But it had claimed more than 23 000 lives in the last 10 years, he said.

Ten people died from the disease every day, he added.

Prof Glatthaar said the self-governing and independent homelands had their own health departments to deal with the disease.

But efforts were made by the various departments of health to form a "mini WHO (World Health Organisation)"

to combat the disease in the country.

An international TB expert, Prof Stefan Grzybowski of Canada, told the Press conference that it was surprising that a rich country like SA, which had a high TB incidence among its people, was spending so little to combat the disease.

Prof Grzybowski said he was particularly impressed by the complete dedication of South African TB workers.

Although Canada had fewer cases of TB, the Canadian Government spent more than the SA Government to fight the disease, he said.

POLITICAL comment in this issue by Benjamin Pogrand, Lin Menge, Peter Bunkell; newsbills by Mike Stent; headlines and sub-editing by Chris Smith; cartoons by David Anderson and Dave Gaskill; all of 171 Main Street, Johannesburg.

RAND DAILY MAIL PUNTER'S FRIEND

ARLINGTON MILLION

COMPETITION

HOW TO WIN

Gilbey's Punter's Friend computer has been programmed to assess the relative abilities of 20 race horses from amongst the best currently in training and the best from the past decade or so. This will be in the format of the popular Gilbey's Punter's Friend printout which appears twice

competition (details of which will appear extensively in the Rand Daily Mail) to predict the first four horses past the post in the correct order, to predict the winning time and the winning distance between the first and second horses.

Commentary of the "race" will be

SPONSORS: South African Airways, Gilbeys, Zambia Airways, Holiday Inns, Channel 702, South African Railways

★ ★ ★

Win a trip to Arlington Park USA

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2nd PRIZE: Two return tickets on Zambia Airways to Cyprus with 7 days free accommodation for two and R1 000 pocket money.

Doctor put back on roll

DURBAN. — A Transvaal doctor, struck off the Medical Roll in 1977, was reinstated at a South African Medical and Dental Council meeting in Durban yesterday.

Dr Philippus Lodewyk Smith, from Ottosdaal, was struck off after being found guilty of performing three abortions and fined R1 500.

This was his fifth attempt at reinstatement.

The Council reinstated him on condition that he works under supervision. — Sapa.

Parents up

'Highveld giants' on way

By Jaap Boekkool

During the next eight years Escom will spend an unprecedented R13 000 million on seven new power stations, five of them known as "Highveld giants."

The new power stations, among the biggest in the world and costing up to R2 500 million each, will also make electricity much more expensive.

By the time the

57 R13 000-m to be spent
16/4/82
on Escom power boost

R13 000 million plan is completed, the ordinary electricity user will pay about 80 percent more according to present Escom projections.

The Escom expansion

plan for the 80s will give work to 24 000 people during construction. Then Escom will have to find another 12 000 trained workers to man the new power plants.

New coal mine operations at Cornelia in the northern Free State, at New Vaal and New Denmark near Stander-ton will give work to thousands more.

New power stations

under construction or contracted for are the 3 600 Mw giants at Lethabo near Vaaldam, Tutuka (eastern Transvaal), Khautala near Kinross, and the D and E stations near Amersfoort and Vereeniging, plus the Palmiet pumped storage station of 1 000 Mw near Grabouw in the Cape, and the bushveld's Matimba station.

BI

Benoni



CAPE TIMES 10/4/82

Water needed from Palmiet

Municipal Reporter

1 THE Palmiet River is one
t of the South Western
1 Cape's last conventional
1 water sources that can
still be developed eco-
nomicallly for urban water
supply.

And Escom believes it is essential for the river to be exploited substantially by 1991 when demand is expected to outstrip supply from existing sources in the Cape metropolitan area.

The first phase is the Palmiet hydro-electric scheme which would supplement the Steenbras Dam by 30-million cubic metres of water a year and is expected to be completed by 1988.

Competition for water in the South Western Cape between agriculture and the urban sectors is keen and a fair division must constantly be maintained.

At present, economically exploitable conventional water sources in the area are nearly exhausted.

The situation is further complicated by the scarcity of suitable dam sites for the storage in the winter months.

Smaller projects

The dependable yield capacity of the urban sector's present water sources is about 268-million cubic metres a year. According to Escom, this yield would be able to satisfy expected demand only until 1988. However, several new smaller projects already under way would increase supply

sufficiently to meet demand until 1991.

Apart from the proposed Palmiet scheme, other sources — including unconventional sources such as re-use of water and the desalination of seawater — are continually being evaluated.

However, these options are still considerably more expensive.

Conventional sources which can be developed include the groundwater potential of the Cape Flats.

The development of a scheme with a yield of about 10-million cubic metres a year is at present being planned. The proposed scheme would involve 27 boreholes sunk over an area of 18 sq km. The water extracted from the sand deposits would be pumped to a central point. After purification, it would be pumped directly into the urban reticulation systems.

Pipeline

Under way is a scheme to divert water from the Elands River to the Theewaterskloof Scheme via a pipeline through the Du Toits Kloof road tunnel.

Also being considered is the raising of the Voelvlei Dam — long one of the Cape's most important water sources — and the construction of a scheme to pump water from the Berg River.

Still unclear is the possible development of the Diep River which drains the southern part of the Swartland wheat producing area.

2 giant power stations planned for Transvaal

CAPL TINKS
16/4/82
55

Own Correspondent

JOHANNESBURG. — Vereeniging and Volksrust/Amersfoort are the sites for two huge new R2 500-million Escom power stations, which together will generate enough power to supply six cities the size of Johannesburg.

Designated power stations "D" and "E", the 3 600-MW units will require the establishment of two new coal mines, each costing at least R350-million.

The first coal deliveries to station "D" will start in 1988, while station "E" is scheduled to start generating power in 1989.

The final cost of the two power stations is likely to exceed R4 000-million each in inflated terms, while the final cost of the new mines will probably exceed R500-million each.

Escom has also announced that the output from the Lethabo power station, now under construction, is to be expanded to 3 600-MW from 1 800-MW.

One of biggest

Station "D" will be erected between Volksrust and Amersfoort in the south-eastern Transvaal, and station "E" will be situated south of Vereeniging in the Vaalbank area.

Escom has emerged as one of the biggest public utilities in the world, and is now by far the biggest buyer of power-generating equipment in the Western world.

It has been estimated that Escom will spend an average of R3 000-million a year in current money terms until the end of the century on expanding power supply, or a total of R200 000-million in nominal terms at an inflation rate of 10 percent a year.

The two new stations are expected to make a significant contribution to the South African power supply network by 1989.

Anti-pollution

According to Escom, the new stations will incorporate strict anti-pollution control measures.

"The output from the chimneys must not be visible to the naked eye," an Escom spokesman said.

Anti-pollution measures will add millions to the cost of the power stations as they require the installation of electrostatic precipitators with an efficiency of more than 99 percent in removing ash from the chimney flues.

Cabora Bassa power station in Mozambique has a contract to supply up to 1 350-MW, or slightly more than eight percent of South Africa's present demand, but sabotage has put this station out of commission, creating temporary supply difficulties.

The loss of Cabora

Bassa has meant that old, low-efficiency power stations are being used more fully than intended.

The Rand Mines group has been awarded a contract to supply coal for power station "D", with deliveries starting in 1988 and building up to just under 11-million tons a year when the station reaches full generating capacity in 1994.

A Rand Mines spokesman, Mr Allen Cooke, said yesterday the new mine would have a life of 40 years, and provide employment for 2 500 people.

Anglo American Coal Corporation (Amcoal) will supply the coal for station "E" from a new colliery on the Cornelia coalfield to the south and west of the existing Cornelia colliery.

600-million tons

The new Amcoal colliery will supply a total of 600-million tons of coal over 40 years and the group's New Vaal Colliery, which is being established to supply the Lethabo station, will also supply 600-million tons over 40 years.

With these two collieries and the New Denmark Colliery now being developed near Standerton to supply the Tutuka power station, Amcoal will be responsible for supplying coal for 10 800-MW of new Escom generating capacity, involving 40-million tons a year at full output.

The group already supplies about 24-million tons a year to existing Escom power stations.

Escom has a present installed power capacity of 21 000-MW, and it is estimated that about 72 000-MW will be required by the year 2000.

Growth rate

Escom's chairman, Mr Jan Smith, said recently it cost R700 to generate one kilowatt of generating capacity now, or about R7 000 to supply one middle class household with a peak demand of 10-KW.

Power supply will have to grow by an annual rate of at least seven percent to cope with the country's growing needs, and this means a doubling of capacity within 10 years.

The enormous expansion of Escom's power generation has provided a boon to embattled European and US engineering companies, which have the technology and expertise necessary for the massive power stations.

In January a R700-million contract was awarded to a US organisation, Combustion Engineering, for the supply of boilers to the Khutala power station, and Escom last month signed a R350-million contract with a West German company, Kraftwerk Union (KWU) for the supply of six turbo-generators for the station.

Koeberg's squash court with difference



STANDING inside one of the Duynefontein squash courts are, from left: Mr Bill Plunkett, a curtain contractor from Cape Town, Mrs Jo Marshall, of Melkbosstrand, and Rory Prinsloo, 3, of Duynefontein.

AN unusual feature of Duynefontein village at Koeberg nuclear power station is a squash court complex which can provide protection for people in case of a civil disturbance.

A senior Escom spokesman confirmed this week that it was part of an emergency plan. 'The squash court complex is being built in such a way that it can be sealed off to accommodate part of the village population in the event of any civil disturbance,' he said.

Duynefontein is being built by Escom to accommodate the adjacent nuclear power station's operations staff and will eventually consist of about 500 houses.

SELF-SUFFICIENT

The town will be fully self-sufficient, providing facilities from schools to recreation centres.

If radioactive gases were ever released, the emergency plan could entail people being asked to stay indoors — and the headmaster being advised to herd children into the school hall if the accident occurred during daytime,

Koeberg's PRO, Mr Austin Brooks, said this week.

'I must emphasize, however, that such an accident is virtually impossible and that not every release would lead to such a situation.'

The best course of action in the event of a radioactive fall-out was to stay indoors, close all windows and doors and stay in bed, Mr Brooks said.

An emergency plan was being completed for Koeberg and the whole area, which could be affected by a release of radioactive gases, included the co-operation of traffic police, the SA Police, the media, medical services and other arms of local and central governments.

'The plan is expected to be fully implemented before fuel loading — probably in the second half of this year,' — Dr W H Wilkie, Escom's Head of Health Physics in the Western Cape, said.

FIRST REACTOR

The first nuclear reactor is scheduled to start operating at the end of this year, and the second at the end of next year.

When fully operational, Koeberg — 28 km from Cape Town's City centre

— will supply about 10 percent of the national power grid.

Its 1842 megawatt output should be enough for the Western Cape and the area bounded by Plettenberg Bay, Sutherland and Van Rhyndorp.

Escom officials would not permit publication of specific details of the protective measures at the squash complex.

55 (2/4/82) Avyana
By DIRK VAN ZYL 17/4/82

While at w $P = 0$ $\frac{dP}{dw} = 0$ $\frac{dP}{dP} = 0$ is equal to zero.

When $P = AC$ then the monopolist would only be making normal profit which is much lower than the normal profit that could be made if P went any lower than AC than it would begin to start running at a loss.

When $P = AC$ and when $P < AC$ both points on the demand curve are in the loss elastic part of the demand curve.

8/20

Crunch for SA oil search

18/4/82 S. Times

Special Correspondent

A R10-million budget cut in Soekor's exploration programme to March next year — from R78,3-million to R67,5-million — coincides with a decision to cancel a third drilling rig intended for the offshore oil exploration programme next year.

There will now be a drop in the pace of South Africa's oil-exploration programme which, over a period of 17 years, has cost around R300-million in establishing gas reserves of 11 000-million m³.

Sedco 708, the second of two rigs tapping the FA structure offshore of Mossel Bay, has already returned to the Alaskan fields and will not be replaced until early next year.

The contract on the remaining Sedco K rig expires around the middle of next year. Soekor is left with only one rig for the next eight or nine months.

"This does not mean that we are cutting back on the drilling programme in total. It may be that we will be drilling fewer holes than anticipated in the immediate future but the programme as laid down to March 1985 will be completed," said a spokesman.

"We do not anticipate con-

tracting for a third rig until 1985, again depending on the state of the economy.

"It is always possible to introduce an additional rig on an ad hoc basis, depending on the funds available. We will be reviewing the next five-year plan in 1983/84."

The Government cutback in the oil search forms part of its reordering of priorities during the current economic downturn.

Improved techniques have slashed drilling times by half, says Soekor, effectively doubling the capacity of whatever rigs may be in operation at any one time.

"We can drill a 2 000m borehole in less than three weeks, instead of seven and eight weeks previously.

"This is obviously going to cut our costs, and, although it is not completely clear where the R10-million cut will have most effect, operating costs are going to be much lower on one rig instead of three.

"Even so, we have to admit that the R10-million cut is a substantial one in terms of the overall budget."

The cut represents a 25% drop, taking inflation at 14% into account.

Evaton will be switched on

55 2005 Sowetan 19/4/82

By JOSHUA RABOROKO

EVATON township, also known as "The Dark City", is to be electrified at an estimated cost of R40-million under the replanning and development scheme.

This was confirmed by the Director of Electricity for the Oranje-Vaal Administration Board, Mr J Tromp, who said that six sub-stations would have to be connected to the main sub-station as funds became available.

Evaton, one of the oldest townships in the country where blacks still have freehold rights, is to be replanned and developed following the community council's recommendation to the administration board and the Department of Cooperation and Development.

Criticism

The scheme has already been criticised by opposition groups who maintain that it was designed to deprive residents of their rights, and to offer them the 99-year leasehold which they do not want.

However, the council has maintained that it will go ahead with the plan to get rid of slums, shacks, squatters; and to improve the infrastructure of the township.

In analysing the electricity project, Mr Tromp said that each of the six substations would cost R220 000 and the cost for the whole project would be R40-million.

He said it would be advisable for the council to undertake the project within 18 months to avoid the effects of inflation.

If the Department of Cooperation had no funds for the plan, a loan could be made for the project.

Standowners should however bear in mind that whether or not they have made connections for the electricity switch-on they will have to pay R60 for an acre stand per month and tenants will pay R7,50 per month.

The plan has been accepted by the chairman of the council, Mr Sam Rabotapi, who said that the electrification of the township was a "step in the right direction."

The council was keen to build more homes, schools, clinics, sports and other recreational facilities in the township.

Handwritten notes:
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 Question

Handwritten note: mind to see

Large handwritten note:
 Another factor which makes this timing more difficult is that the policy maker's primary problem is on reaching for an application of a policy next entirely on the statistical data and information given to him, and the error in this data can also lead to incorrect policies. In conclusion, the very problem of timing linked with this uncertainty of correct data and observations leads me to suggest that the problem of timing is critical.

Power failure makes township residents angry

By JIMMY MATYU

A POWER failure which affected parts of some Port Elizabeth's black townships last night and early today left residents without television, heaters and stoves.

Several residents complained that they had not been warned in advance.

Mr Dan Qeque, who owns a garage in Ferguson Road, had to turn away motorists who wanted petrol early today.

"This is the third time this year it has happened. The power failure occurred at about 5.30pm and we tried unsuccessfully to report the matter. There was no reply from the Electricity Department number," said Mrs Qeque.

The areas affected were

Themba Lethu, Dubula Street and lower areas of Connacher and Ferguson Roads.

Mr Ivan Peter, Chief Executive Officer of the Port Elizabeth Community Council, said today the matter had not been brought to his attention.

"I am sure the power failure was accidental and such breakdowns can be expected in a weather like this. We would not cut off electricity without warning the residents first," he said.

Mr Eddie Nomkonwana, a well-known show business promoter, said he had to forgo his favourite jazz programme on television.

"I was angry. I always watch this programme in order to earmark artists for my promotions," he said.

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19/4/85
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ESCOM TO PLUG

CASH DRAIN

53
54

Industrial Week
20/4/82

By Lynn Carlisle and
Simon Murray
(our London Correspondent)

ESCOM is to build two new giant power stations as part of its R14 000-million ten-year programme — but is concerned about the amount of money being spent overseas to complete such projects.

Last week's announcement that coal-fired power station "D" will be erected between Amersfoort and Volksrust and station "E" outside Cornelia, a senior Escom official tells Industrial Week that it is expected

that about two-thirds of the R14 000-million will be spent in SA.

"Concern over the sum spent overseas is causing Escom to set up its own civil, electrical and mechanical engineering division, and we expect to recruit about 60 students over the next few months in roughly equal parts for civil, mechanical, and electrical engineering," he says.

This will form the embryo of Escom's own contracting division. With the present power output of 20 000 Mw expected to double by 1990, Escom also expects staffing levels to rise from 52 080 now to about 70 000 before the year 2000.

"Extensions are well underway at Megawatt Park headquarters to accommodate overcrowding, particularly in the draughtsmen department," the official says.

During the coming decade Escom see little change in the overall pattern of distribution from that existing at present — industry takes about 53%, mines 27%, domestic and street lighting 15% and railways 5%.

The spokesman adds, "There is need for home grown technology and the initial recruitment of engineers will be a hedge against overseas firms taking currency out of SA." The 3 600 Mw units at Cornelia (Verreening) and

Volksrust/Amersfoort will also require the establishment of two new coal mines each costing an additional R360-million or more.

Contracts for the supply of coal to the new power stations have been awarded to Rand Mines and Amcoal.

Rand Mines will establish a new underground mine at a cost of R352-million to supply unit "D" over the next 40 years.

The first coal delivery is scheduled for 1988 and will reach full capacity of 11 million tons annually when station "D" is fully commissioned in 1994.

It is estimated that this mine will provide jobs for about 2 500 people and will have a life span of 40 years, says Allen Cooke of Rand Mines.

Anglo American Coal (Amcoal) will supply 600-million tons of coal over 40 years to power station "E" from a new colliery on the Cornelia coalfield.

Escom has also accepted the extended offer by Amcoal of an increased coal supply from the New Vaal Colliery to enable the generating capacity of the Lethabo Power Station, presently under construction, to be expanded from 1 800 Mw to 3 600 Mw.

Escom says that once power stations "D" and "E" are in production they will provide work for an additional 650 White and 1 200 Black workers at each station.

THORN LIGHTING

59 Star
21/4/82

Budget cuts hit output at Valindaba

By John D'Oliveira
The Star Bureau

WASHINGTON —

Because of the latest budget cuts, production from South Africa's Valindaba semi-commercial uranium enrichment plant will be postponed by almost a year — until early 1987.

This was reported in Washington this week by Nucleonics Week, a well-informed publication devoted to nuclear affairs worldwide.

Claiming to be the first representative of a news organisation to be given a tour of the new enrichment plant, Mr Rob Laufer said the first of the 50 or so modules which would enrich South African uranium would be moved into a huge building 60 km north of Johannesburg.

This would provide "the first tangible

evidence to outsiders that South Africa's enrichment programme is entering a new phase".

Mr Laufer said the plant was flanked by support facilities including a compressor test building, a training centre and a facility where the separation elements — the heart of the secret Ucor technology — were being manufactured.

Visible in the basement were the two huge waste water pipes which Ucor identified as theirs from a photograph seized from two United States military attaches in 1979.

"Security is described as extremely tight, not so much to prevent the leak of proprietary information but to prevent sabotage".

Ucor was on the verge of testing the compressors, which would be the only moving parts in the plant.

'Hot' tests being done at Koeberg

Industrial Reporter

55

THE MOST crucial test phase before the generation of electricity is now being undertaken at the Koeberg nuclear power station.

A spokesman for Escom yesterday said "hot" functional tests were being done. This entailed testing the primary reactor circuit including the 3,54 Mw main coolant pumps and all supporting systems at the actual temperatures and pressures to which they would be subjected during operations. The tests are done without nuclear fuel in the reactor.

"This is the most crucial test phase before power generation using nuclear fuel," the spokesman said.

It also included the full operation of the secondary circuit comprising the steam turbines. Steam was supplied by the station's auxiliary boilerhouse and heat for the primary circuit was generated by running the giant main coolant pumps.

Pressure tests for leak tightness of the 56 m-high reactor containment building were completed successfully recently.

The station is scheduled for power generation early next year.

Law

12
22

S=7

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1) The effect of an increase in the supply of money would be to shift the LM curve to the right (as shown in the diagram from Law - LM). The net result would be a decrease in the equilibrium rate of interest and as the two reactions are inter-related (i.e. a change in the one would produce a change in the other), this would trigger off an increase in investment. (and here it should be remembered that there is a negative relationship between the rate of interest and Investment) which in turn would lead to an increase in the MEI curve.

2) The second case of an increase in the Investment would have the following effect:

A change in the investment curve

22/4/82 (55) ~~43~~ Sowetan

THEY WANT POWER

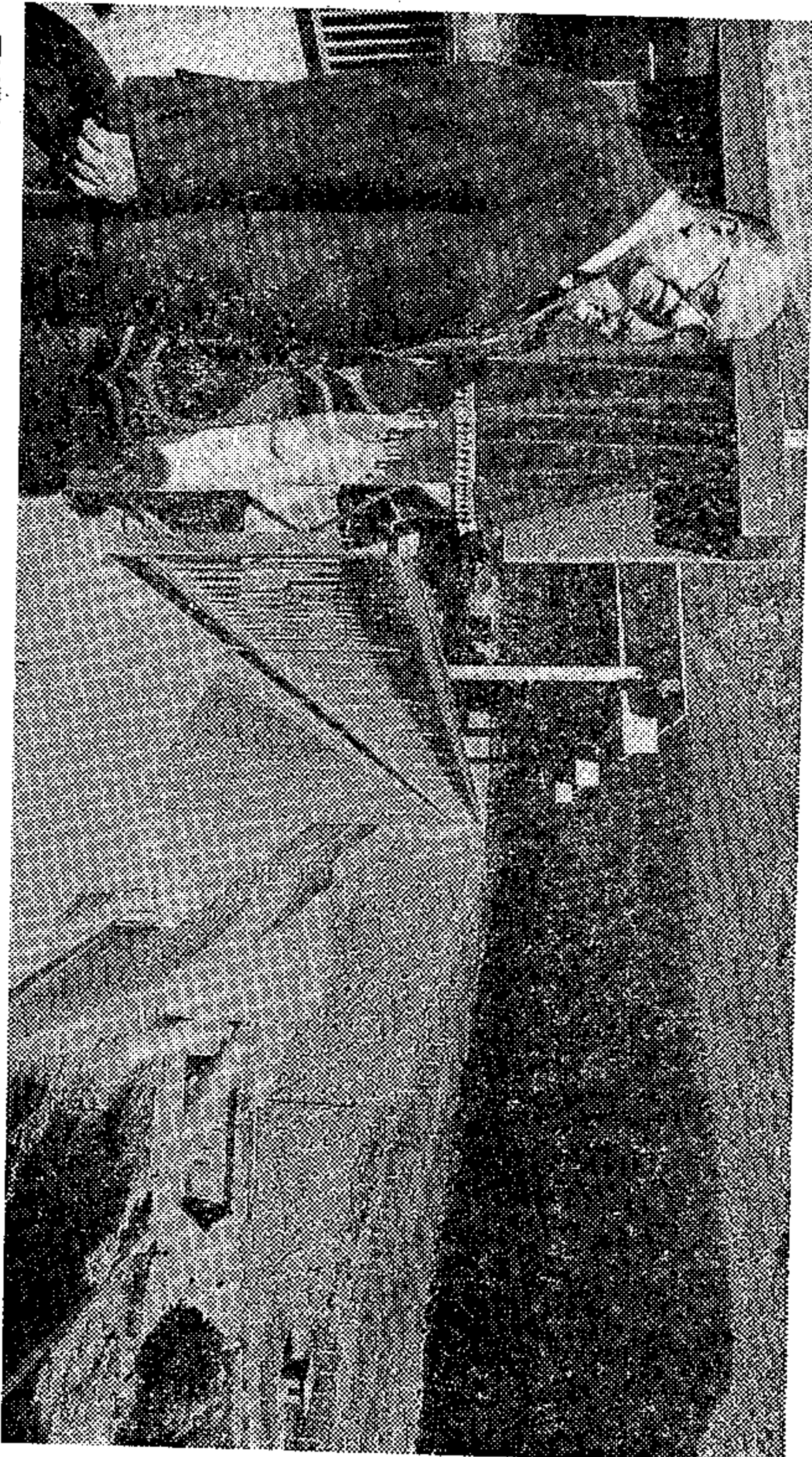
THE Mohlakeng Community Council has sent a memorandum to Dr Piet Koornhof, Minister of Co-operation and Development, in a bid to get the Randfontein township electrified.

The memo, asking Dr Koornhof for his final decision on the electrification of Mohlakeng, has been forwarded to the office of the chief commissioner who is expected to deliver it to the Minister.

Desalination 'first' for Cape Town

SEA WATER FOR CITY TAPS

R/E ARGUS
24/4/82
55



THE Prime Minister, Mr P W Botha, and the Minister of Environment Affairs, Dr Nak van der Merwe, in front of a plaque representing the SA Institute of Civil Engineers' award for the most outstanding project of 1980. In the background is the SA Navy's Band while below water from Kleinplaas Dam gushes from one of a new project's tunnels.

CAPE TOWN is likely to be the first area in South Africa to obtain fresh water from desalination of sea water.

This was said by the Prime Minister, Mr P W Botha, today when he opened a R160-million Rivier-sonderend-Berg River water project. The project, the first of its kind in Africa, is at the Kleinplaas Dam in Jonkershoek Valley, near Stellenbosch.

At the end of the ceremony the cascade of water flowing over the Kleinplaas Dam wall was coloured orange, white and blue — the colours of the national flag — for a few minutes and the national anthem echoed out over the valley.

Mr Botha said South Africa, because of pressure on its water resources, would have to make every effort to use water as sparingly and advantageously as possible.

This applies to the Boland as well, where this project is an excellent example of the efficient exploitation of water by the linking of catchments,' he said.

It would be necessary to develop an integrated approach for the whole Western Cape region.

PLAQUE

Warning lights of approaching water shortages had been flashing all over the country for quite a while, Mr Botha said.

A plaque representing the South African Institute of Civil Engineers' award for the most outstanding civil engineering achievement for 1980 was presented to the Minister of Environment Affairs, Dr Nak van der Merwe, by the institute's immediate past president Dr H I Schwartz.

The Prime Minister unveiled it and also pressed a button to let water gush through one of the project's main tunnels for

Church campaign to bar oil for SA

ARGUS 27/4/82

Argus Bureau LONDON. — British churches have launched a new campaign to stop companies supplying oil to South Africa and have asked the British Government to enforce an oil embargo on the country.

In a hard-hitting report published here today, the Christian Concern for South Africa organisation also accuses BP and Shell of helping South Africa "in their contingency plans to protect the country from a mandatory oil embargo," and continuing "to market oil in Namibia in contravention of United Nations decisions."

It also claims both companies have "considerably increased" their investments in South Africa, particularly in coal and metals, and calls on the companies to provide full information on these operations.

STABILITY

Churches here are urged to bring pressure to bear on these companies and the Government to end sales of oil to South Africa.

But a senior BP official, who did not want to be named, said his company had no intention of disinvesting.

He said BP wanted to see a stable society in South Africa and was confident that strengthening its investment there

was in the interests of all the peoples.

He said: "BP has not supplied oil to South Africa against the clear wishes of any oil supplying country. If the supplier says no, we do not supply that oil to South Africa."

"We will continue to supply the country in accordance with our policy."

Replying to an allegation in the report that BP was paying poverty wages at its mines in the Republic, the official said: "It is scandalous to suggest this. We pay above the minimum wages. We try to be good employers as far as pay and conditions are concerned anywhere in the world."

RESPONSIBLE

He added that BP was trying to behave responsibly and would like to feel its presence was beneficial to the country generally.

A spokesman for Shell did not want to comment on the report which, he said, was just a repeat of unverified accusations.

The CCSA also urges the government to recognise the United Nations decree No 1 concerning the exploitation of natural resources in SWA/Namibia and prevent Shell and BP from engaging in exploring or mining in the territory.

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Uniform Eskom rates call

EAST LONDON — Civic leaders from eight Border towns in Eskom's Orange River power supply grid are drawing up a memorandum demanding lower electricity tariffs for the region. Officials from three Free State towns in the scheme are taking part

in drawing up the document which will be presented to the Minister of Mineral and Energy Affairs, Mr F. W. de Klerk. The eleven towns involved are calling for a uniform tariff for all South African towns and want an explanation as to why they pay the highest electricity tariff in the country.

A 12-man committee has been nominated to draw up the memorandum on Eskom's tariff structure which has forced some northern Border towns to up their electricity charges by 65 per cent in the past 18 months.

The mayor of Burgersdorp, Mr Casper Nel, has been appointed chairman of the electricity committee with Aliwal North's town clerk, Mr J. C. Jacobs as secretary. Representatives from Elliot, Dordrecht, Barkly

East, Jamestown, Col-esberg and Steynsburg also serve on the committee along with officials representing the three Free State towns in the scheme—Zastron, Rouxville and Smithfield. A spokesman for Eskom's head office in Johannesburg, Mr E. d. Plessis, pointed out that Eskom was "strictly governed" by the Electricity Act and could not introduce a "subsidy" system whereby one supply area supported others. "Regions which are isolated, or far away from power stations, have to pay more because of the costs of getting the power to them." — DDR

M. Kagan
ansvaal

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Telephone: (011) 834 5137

Industrial Council for the Liquor and Catering Trade
Mitwaterstrand and Vereeniging)

Membership													
Asian and Coloured	400	405	385	368	344	419	624	637	1 883
White	2 190	2 210	2 215	2 232	1 791	1 757	1 963	1 883
Total	2 590	2 615	2 600	2 600	2 135	2 176	2 587	2 520

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(55) POM 29/4/82

Behind the scenes at SA's uranium enrichment plant

By ADAM PAYNE

THE operation of the Uranium Enrichment Corporation (Ucor) plant at Valindaba in the Hartbeespoort Dam area has been delayed.

The project suffered a funding cut in the Budget which will delay initial throughput from a late 1985 or early 1986 schedule by at least a year, setting back South Africa's enrichment self-sufficiency.

Reporting this, Nucleonics Week, published in New York by McGraw-Hill, says that before 1982 is out the first of the 50 or so modules providing the separative work for Ucor's semi-commercial plant will be floated on air cushions into a huge building at Valindaba, providing the first tangible evidence that South Africa's enrichment programme is entering a new phase.

However, that phase — actual operation of Ucor's 300 000-swu (separative work units) plant — was dealt a blow in the Budget, which calls for a 15% inflation-adjusted reduction in Ucor funding, a figure which the Government keeps secret.

Details of Ucor's programme were obtained by Nucleonics Week during a tour of the plant — the first time Ucor has allowed a representative of a news organisation inside the facility.

The plant is 10 storeys high and 170 m by 70 m. Adjacent to it are various support facilities, such as a compressor test building, a training centre and a facility where separation elements — the heart of Ucor's technology — are being manufactured.

The separation elements are being fabricated by Ucor and are the only components to be made on site.

Nucleonics Week was not allowed to view either the fabrication process or a completed element, nor was any information on the separation technology provided beyond what Ucor has already published.

All other components are manufactured in South Africa by domestic concerns or the South African subsidiaries of overseas firms.

The semi-commercial plant is about 400 m up the road from Ucor's pilot enrichment plant, whose capacity is kept secret.

The pilot plant has proved Ucor's technological principles, and the semi-commercial plant will aim to prove the purportedly unique separation process on an industrial scale, according to Dr A J Roux, chairman of Ucor and South Africa's nuclear patriarch, and Dr W L Grant,

Ucor general manager and the scientific linchpin of the enrichment programme.

Dr Grant said that the semi-commercial plant "will be safely big enough" to provide enrichment capability for Escom's Koeberg 1 and 2 nuclear power units — in other words it will have some excess capacity.

"The plant becomes more efficient as you expand it. From our calculations 3-million swu is the minimum size for commercial competitiveness on the world market."

Dr Roux, 67, who is semi-retired and likely to remove himself completely from the South African nuclear establishment soon, said: "I believe this country would not have started a pilot plant for enrichment and a semi-commercial plant if we did not intend to go beyond."

"Enriched uranium falls right into international politics. What you can get today you might not be able to get tomorrow."

Asked why other, more highly developed nations had not established enrichment plant based on a technology which South Africa has long lauded as perhaps cheaper and certainly simpler than gaseous diffusion and gas centrifuge processes, Dr Roux said: "Perhaps the rest of the world gave up too soon. The main reason we have been secretive is to prevent proliferation of enrichment technology."

"If we can produce highly enriched uranium then surely other, smaller countries can do the same."

Dr Grant added: "The system is simple — the theory is difficult."

Dr Roux said that the pilot plant, which is said to have furnished the Atomic Energy Board's US-supplied Safari research reactor with high-enriched uranium, taught Ucor several things relative to construction of a larger plant.

Nucleonics Week says Ucor is on the verge of testing operating compressors, which will be the only moving part in the plant.

The modules, weighing 120 tons each and measuring 4 m wide by 22 m long, will enter the process hall fully assembled.

From a peak of 3 000 construction workers, the on-site labour force has dwindled considerably.

The plant consist essentially of three floors. The top floor will house the process equipment and control room, the next floor below holds cabling, pipe connections and the ventilation system, all of which are in place, and the basement contains reservoirs and piping for lubricating oil and cooling water.

Visible in the basement are the two huge waste-water pipes which Ucor identified as its from a photograph seized from two US military attaches in 1979. The photographs were taken from a small aircraft, reports Nucleonics Week.

Ucor has a small UF₆ (uranium hexafluoride) conversion plant in operation, and plans a much larger facility for operation by 1984-85. Although the capacity is kept secret, Ucor officials said it will be enough to permit exports of UF₆.

UF₆ is used in the uranium enrichment process.

Association of Cinematograph Projection
Sugar Industry Employees Union
African Trunk & Box Workers Union
S.A. Teleprinter Operators Society
Diamond Cutters Union of South Africa

UNIONS WITH MEMBERSHIP OF LESS THAN 50

UNIONS BY SIZE OF MEMBERSHIP IN 1980

19T
18T
15T
13T
11T
10T
100

86
86
90
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OF MEMBERS

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TRENCHES KILL

Scoutam
29/11/82
55

THE DREADED SOWETO trenches have finally claimed a life — a 42-year-old Meadowlands woman this week fell head-first into an electricity trench and died.

And just two days before she met her death, another woman fell into another trench in the area and fractured an arm.

The dead woman, Ms Lydia Moganise, died instantly in the trench that runs from her 471F Zone Three, Meadowlands home's front door. Her family said yesterday she seemed to have bashed her head against the hard bottom ground of the near one-and-a-half metre deep trench.

Her husband, Ml Abraham Botsi, told reporters his wife also had a broken neck and a serious injury on the eye

when taken out of the trench.

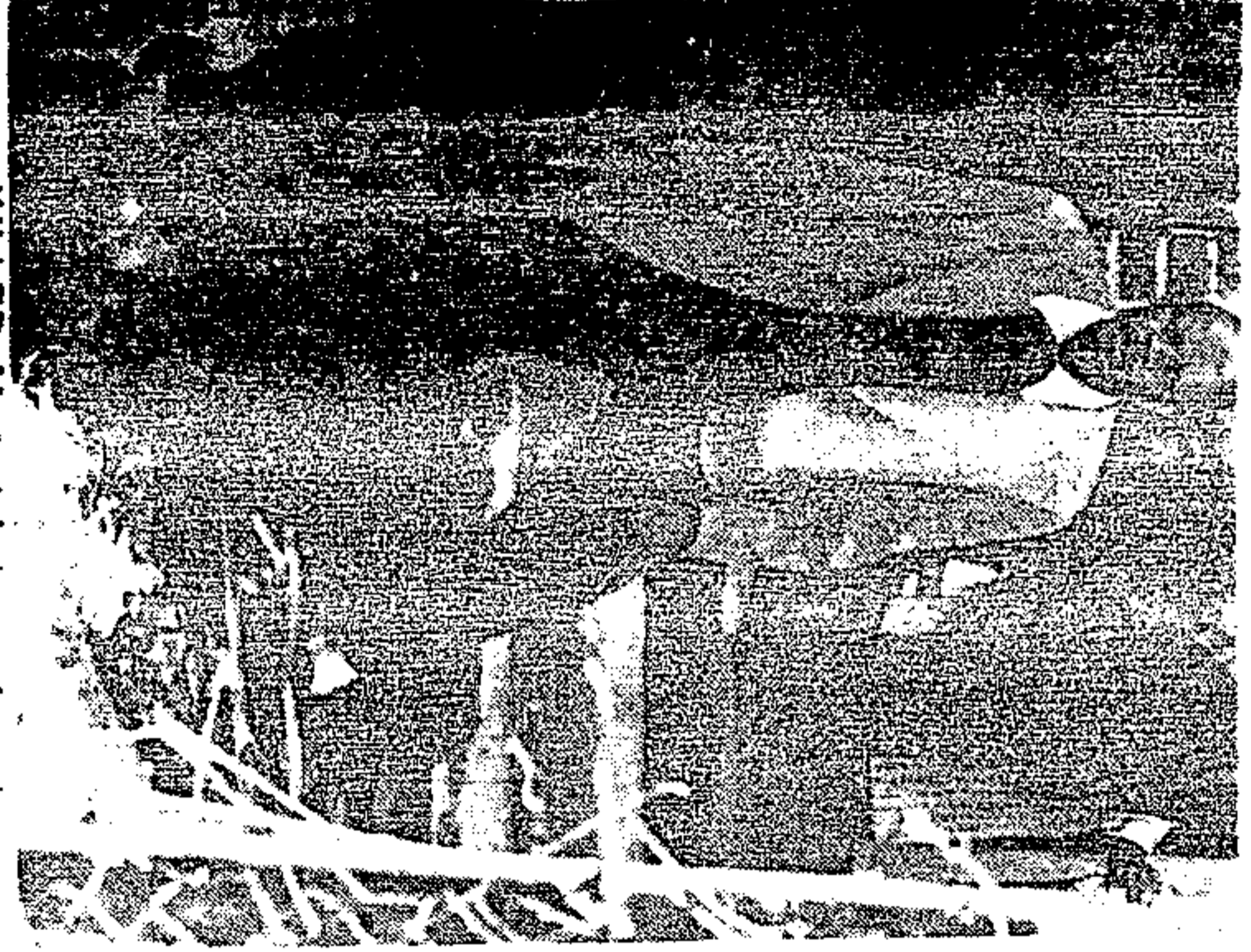
"As if they do not care, these people were still busy digging and widening the same trench this morning. Whites in town don't have trenches opened and left like that for ages. Did someone have to die first before people responsible could act?" asked a sad Mr Botsi.

Another relative, Mrs Julia Sepatake, said she was inside the house when Ms Moganise

BY WILLIE BOKALA

slipped and fell into the trench at about 8 pm on Tuesday. "By the time we realised what was happening, she was dead," she said.

In another incident in the same area, Mrs Johanna Ratombo (32) injured her leg and fractured her arm when she slipped and fell into a trench dug in her yard. The trench runs from her front door to another that runs the street's length along the fence.



KILLER: Mr Botsi shows trench.

the Motor Industry Combined Workers Union.

Angry

These incidents come at a time when the trenches, which have been lying open for about two years, are reported to have made councillors in the Diepmeadow Community Council angry. The council has appointed a special committee to "find out why the trenches are not yet filled."

Just five months ago a 78-year-old granny fell into a trench injuring herself seriously. The gaping trenches can be found in most parts of Diepkloof, Meadowlands and central Soweto.

Mr J C Mahushu, chairman of the Diepmeadow Council, could not be reached for comment yesterday.

**Massive
land
deal
underway**

VAAAL POISSED FOR VICTORRY

55

Industrial week 4/5/82

By Lynn Carlisle

DETAILS of the biggest industrial land deal in the history of the Vaal Triangle are expected to be revealed at Vanderbijlpark this week.

This follows disclosures last month of new multi-billion rand developments in and around Vanderbijlpark-Vereeniging where sources are cautiously optimistic of additional projects exceeding R850-million being disclosed fairly soon.

and Welders
orkers

While Amcoal will go ahead and extend the New Vaal Colliery in line with Escom doubling expenditure to R2 000-million at Lethabo Power Station now under construction, secrecy shrouds details of three Vanderbijlpark industrial land deals — one for a 120 ha site — involving possible investments totalling R750-million.

"Right now we cannot divulge details concerning these three industrial developments which we hope to be finalised soon," says Vanderbijlpark Municipality spokesman Louis Lindeque.

But Coenie Nel, manager of Iscor property developers Vescor, says buyers are "going mad" for industrial and residential properties.

"Many people will be surprised when the biggest industrial land deal in the history of the Vaal Triangle is announced, pro-

bably by Friday," says Nel.

He reports that Iscor, now spending in excess of R160-million on a direct reduction plant and new coal briquetting facilities will outlay R10,5-million on 167 new town houses and upgrading 130 existing homes.

Lindeque also says plans for the development of a Vaal river front conference centre with hotel-type accommodation are underway.

Its estimated cost will exceed R20-million.

"A shopping complex — a sort of Rosebank Centre with cinemas and malls — is to be constructed for R23-million, while Clicks are building a complex, which will include satellite shops, for R7-million," Lindeque adds.

At Vereeniging 15 km away, town clerk John Roodt, is remaining tight-lipped about a

"big company" which has been negotiating for the past year to acquire a massive 60 ha site.

"This matter should be finalised soon. But architectural plans are being drawn up for the new Riviera Hotel with flats which is probably a R40-million contract," says Roodt.

Vereeniging is only 10 km from the Lethabo Power Station site and although Escom has sited its new residential township more than 20 km from Lethabo it is has reportedly purchased more than 100 houses in Vereeniging.

"There is a growing shortage of housing and although the council has approved a housing scheme for all race groups the go-ahead on these is being held back through a shortage of funds," says Roodt.

While he expects the situation could become further aggravated when construction

begins on Escom's new power station "E" outside Cornelia, about 30 km from Vereeniging, the town is going ahead with the proclamation of three industrial townships totalling 220 ha.

The spin-off from Lethabo is also expected to increase when the new bridge over the Vaal is completed, making Vereeniging the closest town to this new power station.

Tenders have gone out for a complex on a town centre block stand bound by four streets, and Pick'n Pay will shortly open a hypermarket.

A new concept in flats for the elderly is also subject to funds becoming available.

"There are some major developments in the pipeline, and these are aside from the fact that we have not felt what impact the Prime Minister's new decentralisation policy will have on this area," says Roodt.

MEPLATE
PTY. LTD
ESCENT SIGNS

SILK SCRE

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SATV b
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JOHANNESBURG
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Would be bank robber 'needed money'

DURBAN — A 51-year-old man who said he attempted to rob a bank to get money to help pay for his new R73 000 house was remanded today in the Durban Regional Court for sentence on May 6.

Appearing before Mr M C Fourie was Trevor Sinclair Penrose, a building society employee.

He pleaded guilty to attempting to rob Mrs Charmaine Fareed, a teller at the Greyville branch of the Standard Bank, on April 29.

In a statement handed to the court, Penrose said he was having financial troubles and needed money for a house he was building. It cost about R73 000.

The court heard he had had to repay about R19 000 borrowed from his mother to her estate after she died.

He had been thinking about robbing a bank and had chosen the Greyville branch of the Standard Bank because it was in a quiet area.

He had with him an unloaded .22 revolver in a briefcase and took it out in the bank.

Penrose told the court that Mrs Fareed screamed and that he had run away.

That night he could not sleep from worry and guilt and the next morning he decided to give himself up to the police.

He was remanded on warning. — Sapa

PE electricity tariff increase details not clear

Municipal Reporter
THE Port Elizabeth Electricity Department had heard "nothing officially" concerning the Escom tariff increases announced yesterday, a spokesman for the department said.

Escom said its tariffs would increase by an average of 6,6% on July 1.

According to the details given in yesterday's announcement, the tariff in areas which receive power from the Orange River undertaking (including Port Elizabeth) will be increased by 5,8%.

The spokesman for the Port Elizabeth Electricity Department explained that the complicating factor was that, according to the Government's industrial development proposals, the cost of electricity to consumers supplied directly by Escom at the industrial development points (one of which is the Port Elizabeth/Uitenhage area)

would be subsidised in order to ensure a tariff equal to the Escom tariff.

The tariff increase announced for the Eastern Transvaal was 7,3%.

"It's not clear how the Eastern Transvaal increase will be related to us," he said.

However, if it was assumed that Port Elizabeth's tariff would be increased according to the rate for the Orange River undertaking then it was likely the 5,8% would be passed on to the consumer.

When Escom increased its tariff by 13% in January, only 6% was passed on to the consumer, he said.

"If we can't take the additional amount for this tariff increase out of the reserves then we will have to pass it on to the consumer," he said.

In its statement yesterday Escom ascribed the tariff increases to losses caused by the "unreliability and subsequent unavaila-

bility" of power supplies from Cabora Bassa.

Supplies of power from this source were curtailed in 1980 and since the beginning of last year South Africa had effectively received no power from Cabora Bassa.

"It is suspected that the loss of power supply from Cabora Bassa is due to the inability of the Mocambique Government to control the activities of a resistance movement or to render the necessary protective services."

The statement said that older and uneconomic power stations have had to be kept in commission to meet the shortfall of power. This in turn has led to a higher level of coal consumption, which has contributed to the extra costs.

Escom is accelerating its construction programme in order to eliminate the shortfall in installed capacity as soon as possible.

SA Model of the Year is chosen

Post Correspondent
JOHANNESBURG — Leigh Harding, a green-eyed brunette from Johannesburg, is South Africa's Model of the Year.

Leigh, 22, was chosen at a glittering function in Johannesburg last night, defeating nine other finalists for the title.

Runners-up were Denae Wright, also of Johannesburg, and Cape Town's Bevann Simpson.

Learning the



Stanford Slabbert makes clean sweep

Post Reporter

PORT Elizabeth canoeist Stanford Slabbert made a clean sweep in all the events at the East-Cape canoe sprint championships at the North End Lake during the weekend.

City bus fares return to old level

AT a minute past midnight on Friday morning, City Tramways bus fares return to their pre-July 6 level, as a result of Supreme Court Order granted to Mr Rommel Roberts last week.

The users of clipcards will be largely unaffected by the fare reductions, as these did not increase with the July 6 price hike with the exception of three routes.

Schoolchildren's clipcards will revert to the pre-July 6 level — which means that a special clipcard for children in uniform over 13 for R3,00 will be dropped. However, special school bus prices will drop from 20 cents for under 13s to 15 cents, and 40 cents for others to 25 cents.

10 TRIPS

Clipcards for under 13s for an unlimited distance on any bus for R1,60 for 10 trips (five in and five out) will continue, although it will benefit only those children unable to use school buses.

The three clipcards which will drop in price will be those for Nyanga - Heideveld station, the Nyanga - Guguletu circular ride, and the mountain area

Escom tariff up 6pc in July

JOHANNESBURG — Escom tariffs will increase by six per cent in the Border on July 1.

The national average increase will be 6,6 per cent.

In a statement, Escom describes the increase as a "special one attributable to losses caused by the unreliability and subsequent unavailability of power supplies from Cabora Bassa".

Supplies of power from this source were curtailed in 1980 and since the beginning of last year South Africa had effectively received no power from Cabora Bassa.

"It is suspected that the loss of power supply from Cabora Bassa is due to the inability of the Mozambique Government to control the activities of a resistance movement or to render the necessary protective services."

The statement said that older and uneconomic power stations had had to be kept in commission to meet the shortfall of power. This in turn had led to a higher level of coal consumption, which had also contributed to Escom's extra costs.

Escom is accelerating its construction programme in order to eliminate the shortfall in installed capacity as soon as possible.

Increases will be applied as follows: Rand and Free State 6,4 per cent; Natal 7,5; Eastern Transvaal 7,3; Cape Western 5,8; Cape Northern 6,0; Orange River 5,8; Border 6,0.

Average increase 6,6 per cent. — SAPA.

Return to lay

As Tramways are unwilling to hand out information on their old fares structure yet, the best is to seek a fare schedule from them yourself.

Some of those that were most affected in July's hike were:

u will cted

To	New fare	Old fare
ape Town	25	20
ape Town	45	30
ape Town	35	20
ape Town	45	30
ape Town	40	25
ape Town	30	20
ape Town	45	30
ape Town	45	25
ape Town	80	40
owbray	30	20
owbray	40	20
sies River	40	25
sies River	35	25
sies River	45	35
aremont	50	25
sideveld Sta	45	25
atural	50	25
sies River	35	16

Guerilla action pushes up Escom prices

Star 4/5/82

8/8/82

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Escom has announced electricity increases averaging 6,6 percent from July 1 to cover losses from the lack of power from Cahora Bassa.

The Escom increase to the Rand is 6,4 percent. As Escom supplies only a third of Johannesburg's electricity, consumers can expect to pay about 2,2 percent more.

The average Johannesburg consumer with a monthly electricity bill of R31 will pay an additional 70c a month.

Efforts by the South African Government to solve the problems through diplomatic channels have as yet been unsuccessful it was announced in Pretoria.

GUERRILLA

The Cahora Bassa project is now managed by a Mozambique-registered company which has not been able to maintain or repair transmission lines because of guerilla activities in Mozambique.

Increases will be: Rand and Free State 6,4 percent, Natal 7,5, Eastern Transvaal 7,3, Western Cape 5,8, Northern Cape 6,0, Orange River 5,8, Border 6,0. The average increase is 6,6 percent.

A spokesman for Es-

com said last night that older and uneconomic powerstations were being kept in commission to meet demand and Escom was accelerating its construction programme to eliminate the shortfall.

There had been substantial cost increases in many areas since the present tariff levels were calculated about a year ago, with inflation, interest rates, sales tax and increased security measures, and these had seriously affected Escom's cost structure. An attempt was being made to counteract these increases by increased productivity.

Black Allied Workers Union

Cape Explosives Industrial Workers Union

Chemical and Allied Workers Union

Chemical Workers Industrial Union

Chemical Workers Union

Durban Rubber Industrial Union

Engineering and Allied Workers Union

Engineering Industrial Workers Union of S.A.

Federated Mining, Explosives and Chemical Employees Union

Industrial Salaried Staff Association

General Workers Union

Metal and Allied Workers Union

National Union of Engineering, Industrial & Allied Workers

National Union of Motor Assembly & Rubber Workers of South Africa

S.A. Chemical Workers Union

South African Allied Workers Union (SAAWU)

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S.A. Bollemaak

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S.A. Tin Worke

South African

Steel, Enginee

Transvaal, Rac

United Africa

PE bid for change in concession

55 E-Post

4/5/82

Municipal Reporter

THE Town Clerk, Mr P K Botha, could be sent to Pretoria to make representations on the proposed electricity concession being offered as part of the Government's package deal for industrial development.

This will be discussed at the City Council's Utilities Committee today.

Since the details of the White Paper have been made public, there has been confusion regarding the effect of the concession on the Port Elizabeth/Uitenhage area.

According to the proposals the cost of electricity supplied directly by Escom at industrial development points will be subsidised to ensure a tariff equal to the Escom tariff in the Eastern Transvaal.

As the deputy City Engineer, Mr W Atteridge, pointed out in his report to the committee, the intention appeared to be to reduce the cost of electricity in this area but two factors were overlooked.

These were that Port Elizabeth supplied electricity to Uitenhage and that Port Elizabeth gen-

erated some of its own power.

The Port Elizabeth/Uitenhage area comprised the municipalities of Port Elizabeth, Uitenhage and Despatch.

Despatch purchased its power from Escom, Port Elizabeth bought a portion of its power from Escom and generated the balance, while Uitenhage purchased all its power from Port Elizabeth, Mr Atteridge said.

In terms of the White Paper, Despatch would receive a subsidy of about 30% of its electricity cost, Port Elizabeth about 14,4% and Uitenhage no subsidy at all.

Port Elizabeth would receive only 14,4% because although the Escom bill would be reduced by 30%, this only formed 48% of the total cost of power.

As the intention was to grant the concession to the metropolitan area as a whole, the Government should be requested to agree to passing the benefit of the subsidy on to Uitenhage as well, and also to agree to subsidise the total cost of power to Port Elizabeth, said Mr Atteridge.

nd Welders

TERS

Products

Natal to pay 7,5 pc more for electricity

55 (36) 4/5/82
Mercury Reporter 2
NATAL will be the hardest hit by a 7,5 percent cost increase in electricity from July 1, Escom announced yesterday.

No reason for Natal's high increase in comparison with the rest of country's average 6,6 percent was given by Escom in a statement.

However, the general increase was attributed to losses caused by the unreliability and subsequent unavailability of power supplies from Cabora Bassa in Mozambique.

Escom said power supplies from Cabora Bassa had been curtailed in 1980 and since the beginning of last year, South Africa had effectively received no power from Mozambique.

A report from Sapa said it was suspected that the loss of power supply from Cabora Bassa was due to the inability of the Mozambique Government to control the activities of a resistance movement or to render the necessary protective services.

Mercury
Escom's statement said that older and uneconomic power stations had had to be kept in commission to meet the shortfall of power.

This in turn had led to a higher level of coal consumption which had also contributed to Escom's extra costs.

Escom was accelerating its construction programme in order to eliminate the shortfall in installed capacity as soon as possible.

The second highest increase of 7,3 percent will apply to the Eastern Transvaal while the Western Cape and the Orange River region will only pay 5,8 percent more.

Electricity on the Rand and in the Orange Free State will rise by 6,4 percent and the Northern Cape and Border by 6 percent.

Mr Roland Freakes, the executive director of the Natal Chamber of Industries, said last night the reasons behind the increase appeared to be 'reasonable'.

D. Distalda
Effect of Escom increase unknown 55

EAST LONDON — The municipality is still not sure how the 8 per cent increase in Escom's electricity charges for the Border region will affect households.

The government in its plan for economic decentralisation has stated that electricity tariffs in the Border will be subsidised for all consumers by the government to the same rate as that in the Eastern Transvaal.

Yesterday the deputy city electrical engineer, Mr H. Beck, said the

municipality were still awaiting details of the government subsidy plan.

"The implementation of the subsidy still has to be finalised," he said.

He also said the municipality had received no details from Escom on the proposed tariff increases.

Mr Beck said he had "no idea" on how the Escom increases and government subsidy would affect household consumers. — DDR

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 Commercial, Catering & Concession Stores and Domestic Workers and Kimberley Shop Assistants
 National Union of Domestic Workers
 Pretoria Vakkond Vindretorsaal Retail Merchants
 Catering and Accommodation
 Commercial, Catering & East London Liquor &

Amalgamated Society of Woodworkers
 Amalgamated Engineering Union of South Africa
 Amalgamated Union of Building Trade Workers
 Black Allied Workers Union
 Blankebouwerkersvakkond
 Building, Construction and Allied Workers Union
 Building Workers Union
 Electrical and Allied Trades Union of South Africa
 Engineering and Allied Workers Union
 Engineering Industrial Workers Union of South Africa
 General Workers Union
 Metal and Allied Workers Union
 National Union of Engineering, Industrial and Allied Workers
 Port Elizabeth Operative, Plumbers Employees Association
 S.A. Operative Masons' Society
 S.A. Woodworkers
 Steel, Engineering and Allied Workers Union
 S.A. Electrical Workers Association

CONSTRUCTION

Cape Town Gas Workers Union
 Escom (Cape Western Undertaking) Salaried Staff Association
 Escom Salaried Staff Association
 Escom Workers Association
 General Workers Union
 Johannesburg Municipal Water Work Mechanics Union

ELECTRICITY, GAS AND WATER

Diamond Cutters Union of South Africa
 Jewellers and Goldsmiths Union
 Optical Workers Union
 S.A. Association of Dental Mechanicians
 S.A. Diamond Workers Union

Other

BILLIONS LOST IN U.S. SYNTHETIC FUEL SHOCK

SHALE OIL
PROBE
IS SHELVED

NEW YORK: The Exxon Corporation's surprise decision this week to put into mothballs its six billion dollar Colony Oil Shale project is a great blow to the synthe-

tic fuels industry that was started with fanfare and billions of US Government dollars less than two years ago.

The oil company's move is seen here as providing further evidence that falling oil prices and reduced demand for energy have seriously damaged prospects for a booming American Synfuels industry by the late 1980s.

Exxon, in making its announcement, cited current market conditions and escalating costs as the major factors for dropping the project. The company had already invested 500 million dollars. The final cost of the plant probably would have come to at least three billion dollars for Exxon and its partner in the deal, the Tosco Corporation.

Before Exxon's announcement, Shell Canada and Gulf Canada said they, too, would abandon the 13 billion dollar Alsands Oil Sands project for similar reasons.

Potential

For nearly a century, the energy industry has known that oil shale constitutes a tremendous potential energy source. According to estimates, the rocks beneath parts of Colorado, Utah and Wyoming contain enough fossil fuel to make 1.8 trillion barrels

of oil. But the economics of turning the rubbery substance called kerogen into a useful fuel has always seemed out of reach.

For Robert Hanfling, a former synthetic fuels specialist at the U.S. Department of Energy, the Exxon move is a setback not just for synthetic fuels industry but for the whole U.S. international and economic strategy.

Fears

John Lichtblau, the energy consultant to a number of private concerns, fears that synthetics have been indefinitely postponed, maybe never to get off the ground.

The Exxon move also raises a crucial question: can the world's largest untapped source of fossil fuel be developed without direct government involvement? Tosco, Exxon's junior partner in the deal, had received government loans, while Exxon funded it with its own resources.

Lichtblau cited three factors that had thwarted the development of synthetic fuels: Predictions that oil prices will not increase in inflation-adjusted terms for three or four years — interest rates will continue to soar — and a growing feeling that oil supplies will be plentiful for the balance of this decade.

Since 1918, the oil shale industry has had its ups and downs. After the revolution in

Iran two years ago, which resulted in oil price increases and the setting up of the U.S. Government sponsored Synthetics Fuel Corporation (SFC), the industry began its strongest boom ever.

But last winter, one of the strongest advocates of oil shale, the Occidental Petroleum Corporation, was forced to close down its operations because of adverse economics, including substantial increases in estimates of the project's capital costs.

With Exxon out of the picture, it leaves only Union Oil with a commercial-scale project, bolstered by a contract with the federal government to buy its shale oil at a fixed price.

There are even congressional efforts to do away altogether with the Synthetic Fuel Corporation, though a bill to that effect hasn't attracted much support.

Build up

It is hardly surprising that the Reagan administration isn't showing any enthusiasm in developing synthetic fuels. The economics just aren't there.

As for the national security risk posed by a possible cut-off of foreign oil, the Reagan administration believes the better way to solve the problem is to build up the strategic reserve. Last week the White House announced a deal to buy oil from Iran to build up the reserve.

S. Tribune
9/5/82
55

Terror Mathebula

narrowly missed his lungs.

Mathebula said the incident happened early on Laciari at Orlando Stadium last year.

R75 000

theft:

SA woman

for trial

Argus Bureau

LONDON. — South African Miss Sonja Fortune, 42, has been ordered to stand trial at the Inner London Crown Court on charges of stealing silverware, jewellery and furs worth about R75 000.

Horseferry magistrates yesterday ordered the unemployed Miss Fortune to report daily to the police, surrender her passport and live only in Prince's Gate, South Kensington, pending her trial.

According to the charge sheet, Miss Fortune is accused of stealing:

● Silver, jewellery and clothes worth R60 000 from a Mr Sassoon of Chester Square, Belgravia, on December 12 last year.

● Silver cutlery worth more than R5 000 from Miss Margaret Szekley of Elm Park Gardens, Chelsea, on December 17, as well as jewellery, a fur and a radio worth about R3 800 from Miss Szekley on November 18.

FUR JACKET

● A fur jacket, two pearl necklaces and a silver ashtray, together worth about R4 000, from Dr Maria Keppel, also of Elm Park Gardens, on November 18;

● Earrings worth R1 800 from a Mr Dresden of Chester Street, Belgravia, about April 16 1980;

● A driving licence from Miss Aldine Honey of Victoria on April 15 1980;

● Diamond earrings, a gold medallion and gold ring and other jewellery worth R1 800 from Miss Najwa Jafer.

A date for the trial is still to be fixed.

Curb on colleges

Argus Africa News Service

NAIROBI. — The Technical Teachers' College is the third Kenyan higher education institution closed indefinitely within a week.

Students boycotted classes and demanded

Mixed reaction to petrol sales levy

ARGUS 11/5/82

Argus Correspondent

JOHANNESBURG. —

There has been mixed reaction to the announcement by the Minister of Mineral and Energy Affairs, Mr F W de Klerk, that the permit system for obtaining petrol outside normal trading hours is to be scrapped.

Mr de Klerk told the Assembly during his Budget Vote yesterday that the permit was to be replaced by a levy of R5 for each after hours transaction from June this year.

The AA, some garage owners and Assocom have expressed reservations about the measure, but reaction from the Motor Industries Federation and the tourist industry has been favourable.

HIGH PRICE

All parties approached believed that the inbuilt deterrents — the R5 levy and the already high price of petrol — would prevent a dramatic rise in the nation's fuel consumption.

The Minister said the permit system had not resulted in the cancellation of trips, only in their postponement. The regulations had not been applied uniformly, there had been malpractices and motorists had been inconvenienced and subjected to time wastage.

The intake of fuel at oil company depots and the present selling hours would remain in force, Mr de Klerk said.

RESERVATIONS

Some garage owners expressed reservations, and said the new system was open to abuse.

But Mr Jannie van Huyssteen, director of the Motor Industries Federation, said there would be sufficient control.

"A cash slip or receipt will be issued for each transaction, giving the date and time, the registration of the vehicle, and the quantity of fuel purchased."

Mr John Turner, proprietor of a suburban petrol station, said: "I don't think it would pay us. We would have to employ more staff — I don't think the extra sales would cover it."

● See page 14.

Hard work at jobless centre

Argus Bureau

LONDON. — People waiting at a centre for the jobless in Grantham, Lincolnshire, were told by an official: "I am sorry you have got to queue, but we are short-staffed."

Disco king Raseroka acquitted of car theft

Argus Correspondent

PRETORIA. — Godfrey Raseroka, the former world disco dancing champion, has been acquitted by a Pretoria Regional Court on charges of theft of a car, car licence, number plates and a Third Party disc.

Mr Raseroka, 20, of Ga-Rankuwa, Mr Fannie Kgabo, 21, of Atteridgeville, Pretoria,

on the theft charges yesterday.

Mr Raseroka said he knew nothing about the stolen car licence, number plates and Third Party.

The magistrate, Mr C J Strydom, said there was proof that the four men had been in possession of the car and other stolen articles, but there was no proof that they had

Seed price rise

Argus Correspondent DURBAN. — The Directorate of Economic

United Nations transition assistance group.

These moves have confirmed — to the Americans, at any rate — South Africa's genuine commitment to a reasonable settlement.

Jaap

2/8/82

Marais

55

pleads ^{stew} not guilty

Own Correspondent

The leader of the Herstigte Nasionale Party, Mr Jaap Marais, pleaded not guilty in a Pretoria Regional Court today to disclosing information during the general election last year relating to the Petroleum Products Act.

Mr Jacob Albertus Marais (59), address given at Rietondale, Pretoria, was charged with contravening the Petroleum Products Act on April 27 last year by distributing pamphlets which contained information relating to the source, manufacture, transportation, destination, storage, quantity or stock level of any petroleum products acquired or manufactured for or in South Africa, and for issuing comment on this.

ADMISSIONS

Mr Marais made certain admissions to the court.

He said he knew the document originated from South African Railways and that copies had been made of it and had been distributed to the public.

In his election speech Mr Marais referred to the petrol shortage in South Africa and how the Government was emphasising the shortage.

He said he had a document to prove that the Government had distributed 5 million litres of petroleum in five days to Zimbabwe —so there could not be that much of a shortage.

(Proceeding)

Builders & Welders

S.A.

Union

Industrial Union

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S

Industrial Union

Builders and Welders

Amalgamated Engineering Un
Media Workers Association
Paper, Wood & Allied Worke
S.A. Boilermakers, Iron &
S.A. Electrical Workers As
S.A. Society of Journalist
S.A. Typographical Union
South African Allied Worke

Paper & Paper Products, P

National Union of Furnitur
Paper, Wood and Allied Wor
South African Allied Worke

Wood & Wood Products, Incl

Trunk & Box Workers Indust

Transvaal Leather and All

Textile Workers Union (Tr

Textile Workers Industria

Tanning, Footwear and All

Tailoring Workers, Dressm

S.A. Canvas & Ropeworkers

S.A. Canvas & Ropeworkers

South African Allied Work

National Union of Textile

National Union of Leather

National Union of Clothi

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General Workers Union

Garment Workers Union (We

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African Trunk & Box Worke

African Leather Workers I

African Garment Workers I

Textiles, Clothing, Leat

Rustenburg Tabakwerkersv

National Union of Cigare

African Tobacco Workers

Tobacco

Witwatersrand Brewing B

Witwatersrand Baking &

Western Province Sweet

S.A. Electrical Workers

S.A. Boilermakers, Iron

South African Allied Wo

Sugar Industry Employees Union

Sweet Workers Union

Sweet Workers Industrial Union (Natal)

CAP TITLES 11/5/82

After-hours petrol to be brought back

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Political Staff

THE government is to abolish the after-hours petrol permit system and will bring back 24-hour petrol — at a price.

Anybody buying petrol after hours will have to pay a R5 surcharge which will be pocketed by the service station owner.

The new scheme has been welcomed by the chief Opposition spokesman on energy, Mr John Malcomess, who described the old permit system as inefficient and wasteful.

"This is worth a try," said Mr Malcomess.

The abolition of a permit system will in effect bring back 24-hour petrol, provided service station owners are prepared to keep staff manning pumps. The system will probably come into effect late in June.

'Inefficiencies'

The Minister of Mineral and Energy Affairs, Mr F W de Klerk, making the announcement during debate on his department's budget yesterday, said the permit system was fraught with problems and inefficiencies.

The permit system had invited abuse and malpractice, had inconvenienced motorists and had placed a strain on government manpower.

Often permits were arranged by people purely as precautionary measures and were never used.

The decision to withdraw the after-hours permit system was taken after consultation with the service station industry, motoring organizations, commerce, industry and oil companies.

"Some organizations were of the opinion that the size of the levy — or

in some cases any levy at all — was unjustified and that the usual market mechanisms should determine whether a service should remain open or not," said Mr De Klerk.

"Without attempting to reply to these arguments, I can say that the choice of using this after-hours service rests with the public.

Increased costs

"The R5 levy is based purely on the increased operation costs of service stations which offer after-hours service, and to discourage greater petrol consumption — which will at the same time help avoid a general petrol price increase which would follow any dramatic increase in consumption."

Mr De Klerk said the repeal of the existing regulations would be done in mid-June. But until the new system was gazetted, the permit system would be kept in operation.

He emphasized that the aim of the government was not to deviate from present government policy governing petrol sales.

"This measure is an attempt to make available to the motoring public an effective system of getting petrol after hours in exceptional circumstances.

"If the new system is used to exploit the public, or if petrol consumption rises dramatically, we will obviously have to review the decision," said Mr De Klerk.

Mr Malcomess said he was glad the permit system was to go.

BUSINESS BRIEF

Gold (close) . . .	\$329,25
FT index (close)	590,50
RDM 100	595,20

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AGRICULTURE, FOR

elders Society

Orange-Vaal General Workers Union
National Federation of Workers

Unions have been classified according to the Standard Industrial Classification of All Economic Activities. The full extent of the operation of the following general workers unions has not been established:

Science Reporter

THERE is no safe and effective method of disposing of the 600 000 tons of nuclear waste that will come from Koeberg annually, according to a University of Cape Town academic.

Koeberg is due to come on line early next year.

Associate Professor Arnold Abramowitz, of the department of psychology and acting chairman of Koeberg Alert, was speaking yesterday at a lunch-time meeting of the Institute of Citizenship.

He said there were a number of major worries about the development of the nuclear industry.

One of these was the lack of adequate disposal procedures.

"Each reactor like the two that will operate at Koeberg requires about

'NO SAFE DISPOSAL' FOR KOEBERG WASTE

ARGUS 14/5/82

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270 000 tons of fuel a year and produces about 300 000 tons of waste, including the waste containers which also become contaminated and must be disposed of," he said.

"Nuclear energy proponents say there is plenty of time to develop methods to solve this problem.

"But one does not invent a fire engine after one has deliberately started the fire. At present there is not a single demonstrated safe and effective disposal method for highly radioactive nuclear wastes in the whole world."

Professor Abramowitz said the "human factor" was a serious cause for concern. Under normal circumstances when operations have become routine in a plant, boredom becomes a major psychological problem, and when something goes wrong, as in the Three Mile Island plant in the United States, chaos very easily develops.

He said that an objective indicator of the status of the nuclear industry in the United States was the refusal by insurance companies there to underwrite insurance against nuclear accidents.

This was because the possible consequences of a disaster of the worst kind at a nuclear plant were so immense that insurers were scared off, even though the chances of such an accident happening were very small.

Professor Abramowitz said that Koeberg was here to stay, but what should concern each citizen at this stage was the emergency plan that Escom was obliged to produce, and which was expected soon.

He said according to Escom's own estimates 3 000 people would die immediately in the event of a major disaster at Koeberg. A further 20 000 would suffer delayed deaths and the

cost would exceed R18-billion.

He also pointed out that in the year 2010 there would be half a million people living in Atlantis, barely 10 km from Koeberg.

For these reasons any emergency plan would need to be the best possible.

Alternative forms of energy, especially solar energy, seem to offer the best solution to Africa's energy problems, he said.

Solar energy was decentralised, relatively cheap and could be brought to the rural areas, which, even in South Africa where 60 percent of all of Africa's energy is produced, are impossible to supply economically with centralised coal-produced or nuclear-produced energy in the form of electricity.

METAL

Year	African
1970	
1971	
1972	
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1974	3 900
1975	3 900
1976	6 700
1977	7 000
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1980	

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Durban
4001

Officials: Secretary: D.

Area of Operation: Tra

Founded: 1973

Registration: See note

Recognition: 1)
2)
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8)

Membership: 1981 = 24 3

SA - Israel nuclear link is claimed

Tribune Bureau

LONDON: South Africa and Israel are developing a cruise missile with a range of 2 400 km, a neutron bomb and various nuclear delivery systems, according to a book to be published in Israel this week.

The Israeli authors of Two Minutes Over Baghdad quote CIA sources to suggest that Israel already has 200 nuclear warheads stockpiled.

It is known that Israel has developed a nuclear capability but strict Israeli censorship has restricted public discussion. This is the first time a book on the subject has passed the censor.

The three authors are well-known establishment figures in Israel with excellent connections in the military and government.

POW former Swapo from army - and S

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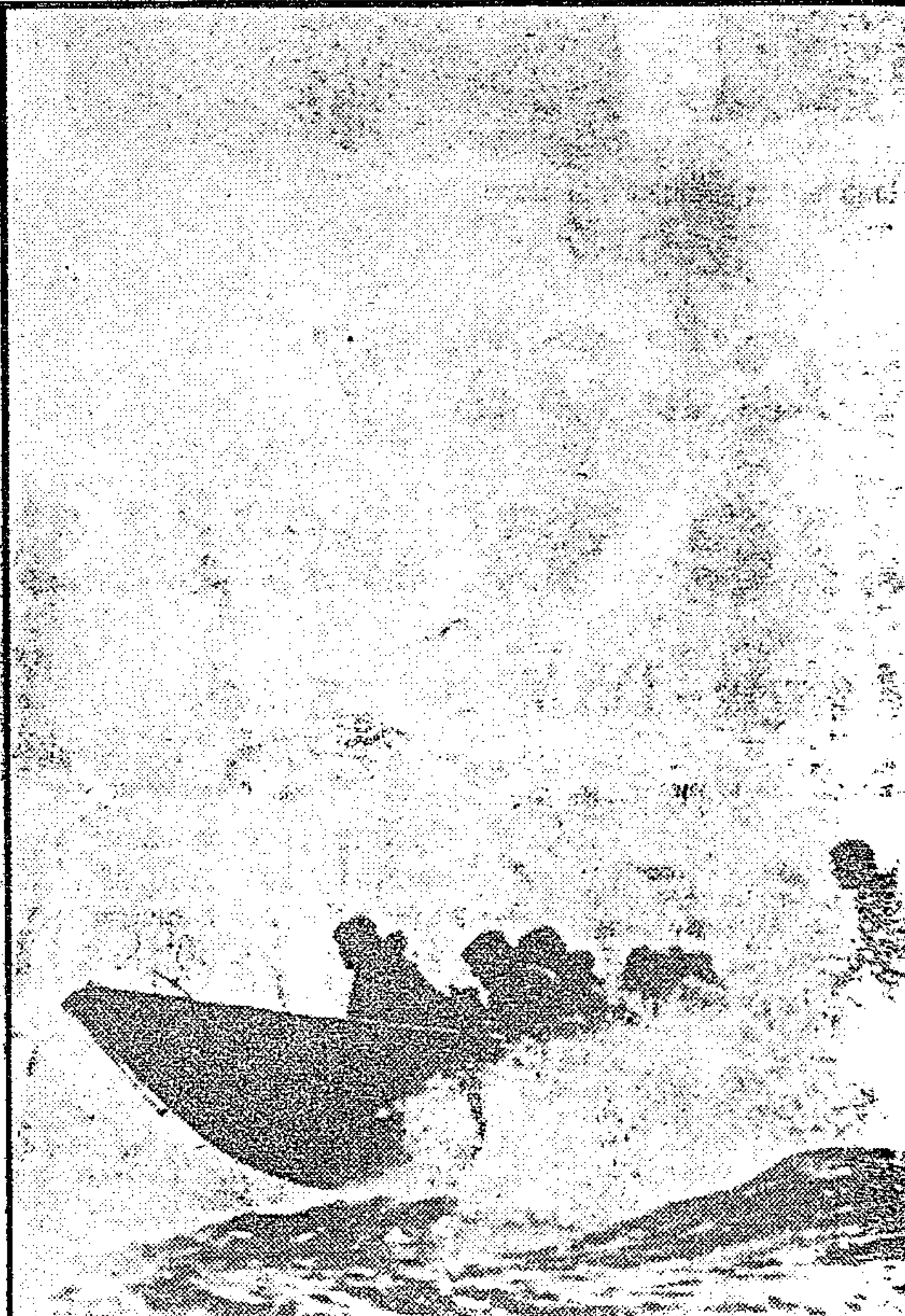
AGAIN

Tribune
Bureau

LONDON: David Somes, the man who fled South Africa while on bail awaiting trial on four counts of murder, has assumed a Pimpernel guise in the Bristol area.

For rumours abound there that Somes, a British citizen, feared officials might decide to try him here and so fled to France.

The Bristol police said: "We have heard the rumour, but we have



Secret Russian oil deals netted for fortune for Deuss

AMSTERDAM — John Deuss, the mysterious Dutch oil billionaire who quietly flies into Johannesburg six or seven times a year, made his fortune through secret oil deals with the Soviet Union.

Extensive Sunday Express investigations in the major port of Amsterdam have uncovered further details of the vast business activities and extravagant lifestyle of South Africa's second Chavelli.

SA'S NEWEST TYCOON WAS A BANKRUPT CAR SALESMAN IN 1967

BY HENRIAN BOYLE

nes Christiaan Maria Martinuss Deuss was born in the Netherlands in 1942. Although his marital status is unknown, he is believed to be unmarried.

Mr Deuss operates from Hamilton, Bermuda, where he owns a R1-million, 15-room mansion. He also owns a luxury residence near New York, as well as at least two Lear jets.

In 1967, Mr Deuss was declared bankrupt when his Citroen car sub-dealership in the Dutch town of Nijmegen collapsed.

But two months later he mysteriously bounced back into the business world by forming JOC Oil, a company based in the Dutch city of Bergendal.

The next year Deuss signed his first contract with the Soviet Union's state oil company in Moscow, establishing a close and long-standing business relationship with the company's president, Mr V E Merkoelov.

In the face of an unofficial American boycott of Soviet oil by the major Western oil giants, Deuss 'laundered' Russian oil for sale in the United States.

A measure of the trust in which Mr Deuss was held by Moscow is indicated by the fact that the contract was offered to him on 90-day and 120-day credit, instead of the usual 60 days.


"You can imagine that the extra time can mean millions in interest with the amounts involved," said Mr Deuss.

But it was a 1977 deal that broke the Russian connection. On February 25, 1977 Mr Merkoelov Telexed Mr Deuss in Bergendal, using the special authentication code agreed between them,

And it is an astonishing story of wheeling and dealing at the highest level of international finance. Mr Deuss is transforming a R725 000 mansion in Honoydew — formerly the home of Gary Player — into what sources say will become a secret, top-security hideaway for his business contacts. Dutch sources told the Sunday Express that Johan-

FLASHBACK — the Sunday Express exposed the security around Deuss's a R725 000 hideaway.

Chavelli No 2 spins a silent web of security...



classified according to the Standard Industrial Activities. The full extent of the operation has not been established:

IN 1981 GROUPED ACCORDING TO INDUSTRIAL CLASS

to say he could not meet the 250 000 tons a month delivery schedule — and Mr Deuss tried to hit the Russians for damages totalling R270-million.

Mr Merkoelov refused to accept further credit from Mr Deuss' bankers, who had underwritten the huge operation for R4.9-million.

But the slowness of Soviet bureaucracy meant Mr Deuss was able to continue filling his tankers from Russian harbours for another month — to the value of R102-million.

After negotiations between Mr Deuss and Mr Merkoelov at the Amsterdam Hilton from August 1 to August 9, 1977, Mr Deuss agreed to go to Moscow to sign a compromise.

But once there, his passport was taken and, Mr Deuss claimed, he faced the threat of being kept in Russia until he undertook to pay the R102-million.

Mr Deuss agreed to this in return for damages of only R98-million — but, as he told it, he was tricked.

He was called to the phone as Mr Merkoelov was about to sign the damages agreement and the Russians later refused to produce the document.

Mr Deuss said he had been tricked out of almost R100-

million — but he showed that he deserved his reputation as a wheeler-dealer.

In the Dutch Consulate in Moscow, after retrieving his passport, he signed a document negating his part of the agreement and, after unloading a new contract he had squeezed from the Russians on to a German dealer, he fled to the West.

The result of the affair is still unclear but it is widely believed that Mr Deuss settled with his other contractors and pocketed the proceeds of the R102-million oil deal — a fortune which provided him with the basis of his present wealth and enabled him to set up his new oil giant, Transworld Oil, immediately afterwards.

Mr Deuss admitted that he has never again traded, and cannot trade, with the Soviet Union.

But he is now the head of a vast financial empire, based on JOC Oil, which has affiliated companies in Abidjan, Brussels, Madrid, New York, Rome, Sydney and Tokyo.

Mr Deuss' other interests include alleged ownership of the First Curacao International Bank, which provides the essential financial link in all his deals, and a glossy American magazine called 'Chief Executive'.

Deuss

Deuss

Workers Union

Workers Union

Workers Union

Escom chief knocks US for breaking uranium contract

By ADAM PAYNE

A STRONG attack on the US Department of Energy (DOE) for breaking its contract to supply enriched uranium to Escom for Koeberg was made by Mr Jan Smith, chairman of Escom, in an interview with Mr Rob Laufer, editor of Nucleonics Week, published in New York by McGraw-Hill.

Mr Smith said: "Why should we be subject to deliberations between Washington and Pretoria? It's almost blackmail, isn't it? Why should a commercial agreement between DOE and Escom be subject to political considerations? The Nonproliferation Act has a lot of merit, but Koeberg is not going to proliferate."

Mr Smith said that if Escom had known in 1976 all the fuss that would come over Koeberg, he doubted whether Escom would have gone to the trouble of a nuclear plant.

The "fuss" revolves around Escom's efforts to secure enriched uranium for Koeberg — first through a long-standing contract with DOE, and then on the world market.

Mr Laufer quotes sources outside Escom as saying that efforts to secure fuel were begun as much as four years ago when it became clear that the US would not fulfill the contract Escom signed

with DOE, unless South Africa signed the Nonproliferation Treaty and agreed to full-scope safeguards.

"I understand the US Government's position in not breaking the law but they have to understand us, too," said Mr Smith. "Escom had an agreement with DOE, not anyone else. We are not amused by someone not fulfilling a contract. This is the first time this has happened to us."

Mr Smith portrayed Escom as an apolitical entity interested solely in generating electricity.

Looking ahead, he said there was no indication that DOE was working towards a solution.

He called the purchase of enriched uranium from Switzerland's Kaiseraugst consortium and possibly another European entity a "temporary expedient".

"The French (fabricated fuel) will see us through for a certain period of time; after that we do not know what we will do... one thing is certain: we can't let a thing of 2-million kw stand idle."

Mr Smith said: "The post-first core gives us problems, and it's there that we seem to be getting no help from the US. If they don't intend to honour the contract they should say so."

Mr Smith also asserted that "nuclear fuel is all over the world, it's easy to get"

As for supply from the Uranium Enrichment Corporation of South Africa (Ucor) which is building a small commercial plant due for completion no sooner than 1987, Mr Smith said that Ucor is not an automatic supply and that it will have to submit a tender like any other enricher.

Escom will not need another nuclear power station until the mid-1990s and when another station is decided on a longer lead time than the 78 months for Koeberg will be allowed. Mr Smith made this clear in the interview.

On the possibility of another nuclear power station, he said Escom is busy with an analysis on which will be based the organisation's nuclear plans for the rest of the century.

Mr Laufer comments that Escom itself is no more than lukewarm towards additional plants and completely rules out any large programme.

Escom's present capacity is 20 000 Mw, with 70 000 Mw projected by the end of the century.

Escom's analysis will come to conclusions on the best ways to reach 70 000 Mw. It is scheduled to be completed in about 18 months and will consider the establishment of another nuclear station in the southern part of the country — away from the coal fields.

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18/5/82

RDM

55 ~~288~~ Hansard Q. 61 861 -
 Escom: Tariff D
 19/5/82 864

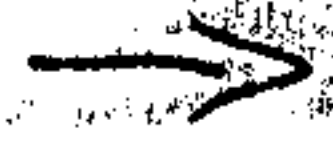
575. Mr. D. J. N. MALCOMESS asked the Minister of Mineral and Energy Affairs:

- (1) What is the amount charged in respect of Tariff D in each Escom area;
- (2) whether this tariff is in force at present; if not, when is it expected to be put into force; if so, since what date has it been in force?

The MINISTER OF MINERAL AND ENERGY AFFAIRS:

(1)

Undertaking	Basic charge Rand per month	Cent per kWh for first 800 kWh per month	Cent per kWh after 800 kWh per month	Percentage surcharge or discount
Border	12	8,78	5,48	16 discount
Cape Western	12	7,73	4,43	14 discount



863 WEDNESDAY, 19 MAY 1982 864

	Basic charge Rand per month	Cent per kWh for first 800 kWh per month	Cent per kWh after 800 kWh per month	Percentage surcharge or discount
Orange River	12	8,58	5,28	14 discount
Natal	8	4,57	2,42	20 surcharge
Eastern Transvaal	10	4,97	2,97	9 surcharge
Cape Northern	12	7,13	4,43	16 discount
Rand and O.F.S.	12	5,37	2,97	9 surcharge

(2) Yes, from 1 January 1982.

Stan 19/5/82 (55) (170)

US more flexible on nuclear products for SA

NEW YORK — The Reagan Administration has adopted a more flexible nuclear export policy towards South Africa that will enable the United States to increase sales of nuclear technology to Pretoria.

The policy shift was disclosed in a letter from Commerce Secretary Malcolm Baldrige to Senator Charles Percy, the Illinois Republican who chairs the Senate Governmental Affairs Committee.

DUAL-USE

Mr Baldrige said American policy should continue to prohibit nuclear co-operation with South Africa as long as it refused to stick to the 1968 non-proliferation treaty, under which nations allow international inspections of their nuclear facilities.

But the letter concludes that the Administration has adopted a more flexible policy on export of dual-use commodities and other material and equipment which have nuclear-related uses "in areas" such as health and safety.

Dual-use means equipment that can be used in peaceful nuclear programmes but also has potential military applications such as use in atomic bombs.

STIR DEBATE

An Administration official said the new nuclear policy reflected an inclination to improve relations with South Africa, which

the White House considers strategically important to the US and critical to a solution of the disputes over Namibia and Angola.

The new policy is likely to stir heated debate in Washington.

A spokesman for Senator Percy said he had not seen the letter and could not comment.

Liberal and conservative groups have opposed any American South African nuclear co-operation. At least 40 groups that oppose closer ties with South Africa because of apartheid recently expressed concern about growing aid to South Africa's atomic programme.

Last week Mr Henry D Sokolski, a scholar at the conservative Heritage Foundation, argued that a more flexible approach would "send the wrong signal to South Africa and other Western nuclear fuel exporters."

The letter to Senator Percy also disclosed that five licences for technology for South Africa's nuclear programme had been approved since 1980.

They include vibration test equipment, which can be used to test warheads and ballistic re-entry vehicles, and computers and multi-channel analysers, which can analyse data from hundreds of cables at a nuclear test blast site.

A State Department official with direct responsibility for African policy said he had no knowledge of the letter. Another State Department official said he did not know that the administration had resolved the issue of how much co-operation there should be with South Africa's nuclear programme.

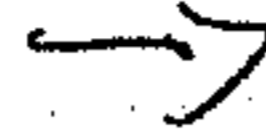
A 1978 law bans the export of all nuclear fuel to countries that do not submit their facilities to international inspection. South Africa placed reactor and nuclear power plants under inspection, but refused to allow monitoring of its nuclear fuel enrichment plant.

Some intelligence officials believe South Africa can make atomic weapons and may have already tested them. — From The New York Times.

55) Hansard Q. 61. 850-851
Nuclear power stations: accidents
19/5/82

*3. Mr. D. J. N. MALCOMESS asked the
Minister of Mineral and Energy Affairs:

Whether his Department intends to in-
troduce an insurance scheme in terms of



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WEDNESDAY

which cover will be provided to (a) private individuals and (b) property owners suffering harm or loss in consequence of accidents occurring at nuclear power stations?

The MINISTER OF MINERAL AND ENERGY AFFAIRS:

(a) and (b) No. In terms of section 5 of the Nuclear Installations (Licensing and Security Act, 1963 (Act 43 of 1963), the liability for all nuclear damages rests with the licensee.

Mr. D. J. N. MALCOMESS: Mr. Speaker, arising out of the reply given by the hon. the Minister, is he aware of the fact that a number of insurance companies specifically exclude damage resulting from any nuclear accident from their policies?

†The MINISTER: Mr. Speaker, I am not aware of it. However, I want to advise the hon. member to read the article which I referred to, in full. He will find in it that comprehensive insurance for people against nuclear damage exists in terms of the legislation.

V

Argus 19/5/82
3 slip 55

through Koeberg nuclear security

Crime Reporter

THREE men using false identity documents breached the high-security system at the Koeberg nuclear plant near Melkbosstrand this week, overpowered a guard and tried to force open a safe.

Details of the break-in, which occurred in the early hours of Monday, were made known only today following an investigation.

The Boland police liaison officer, Major George Kershoff, said three men had entered the grounds of the nuclear plant, which comes on line next year, at about 4,15 am on Monday.

OFFICE

They then broke into an office and attacked a guard, Mr Sampson Thobi, 55. They hit him over the head with a hammer and then tried to force open a safe in the office.

Mr Thobi managed to raise the alarm and help arrived. Koeberg security guards arrested a man. Two men escaped.

An Escom spokesman, Mr G J Roussouw, said the break-in had occurred at the offices of an engineering sub-contractor at the site.

"TRIVIAL"

"It was a trivial matter and not Koeberg's indaba," he said, referring The Argus to the engineering firm.

The manager of Babcocks Engineering, Mr L Williams, today said he was unable to comment on the incident.

It is understood, however, that the men were either present or past Babcocks employees.

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20/5/82

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The Cape Times, Thursday, May 20, 1982

City installs independent radiation monitors

By BOB MULLOY

THE City of Cape Town has installed an independent radiation-monitoring system to act as a round-the-clock watchdog on radioactive emissions from the Koeberg nuclear power station.

The system, installed at six critical points in the municipal area and capable of detecting minute changes of atmospheric radioactivity, makes Cape Town one of the few cities in the world with its own radiation-sensing system.

Changes detected above a certain level, to be determined after a year of operation, will trigger an alarm in the Civil Defence Room at the Civic Centre where a 24-hour watch is maintained. Inspectors trained in radiation monitoring will immediately double-check the reading and report to the centre.

The scheme will operate in parallel with, but independent of, an Escom monitoring system installed at five points in the City. It is a retrospective

(after the horse is gone) system which operates with TDIs (thermo-luminescent dosimeters) of the film badge type as worn by radiographers. Escom readings on the TDIs will be collected quarterly and read by a special dose-meter at Koeberg.

Municipal staff will monitor the setting up and collection of the badges and also their readings. Cape Town's early-warning system has a unique check, built in at the insistence of the Medical Office of Health, Dr R J Coogan. Municipal inspectors are empowered to enter Escom premises at Koeberg and read monitors giving on-site levels and emission rates at the station.

He explained two aspects of nuclear power stations that caused concern:

● A major accident, nuclear or otherwise. This called for a contingency plan for all conceivable emergencies. The plan for Koeberg, likely to involve all public bodies such as police, army, fire, emergency and hospital services, was the responsi-

bility of Escom and the Atomic Energy Board.

● The effects of normal operation of a nuclear station on the inhabitants of nearby towns and cities. Among other factors such as human error and mechanical failure, was the finding after the Three Mile Island disaster that the operators of the plant were "not as communicative with other authorities as they should have been."

Under normal operating conditions Koeberg produced radio-active wastes in solid, liquid and gaseous form. Disposal of the first two was not the concern of the City Health Department as it had no direct bearing on the City at this time.

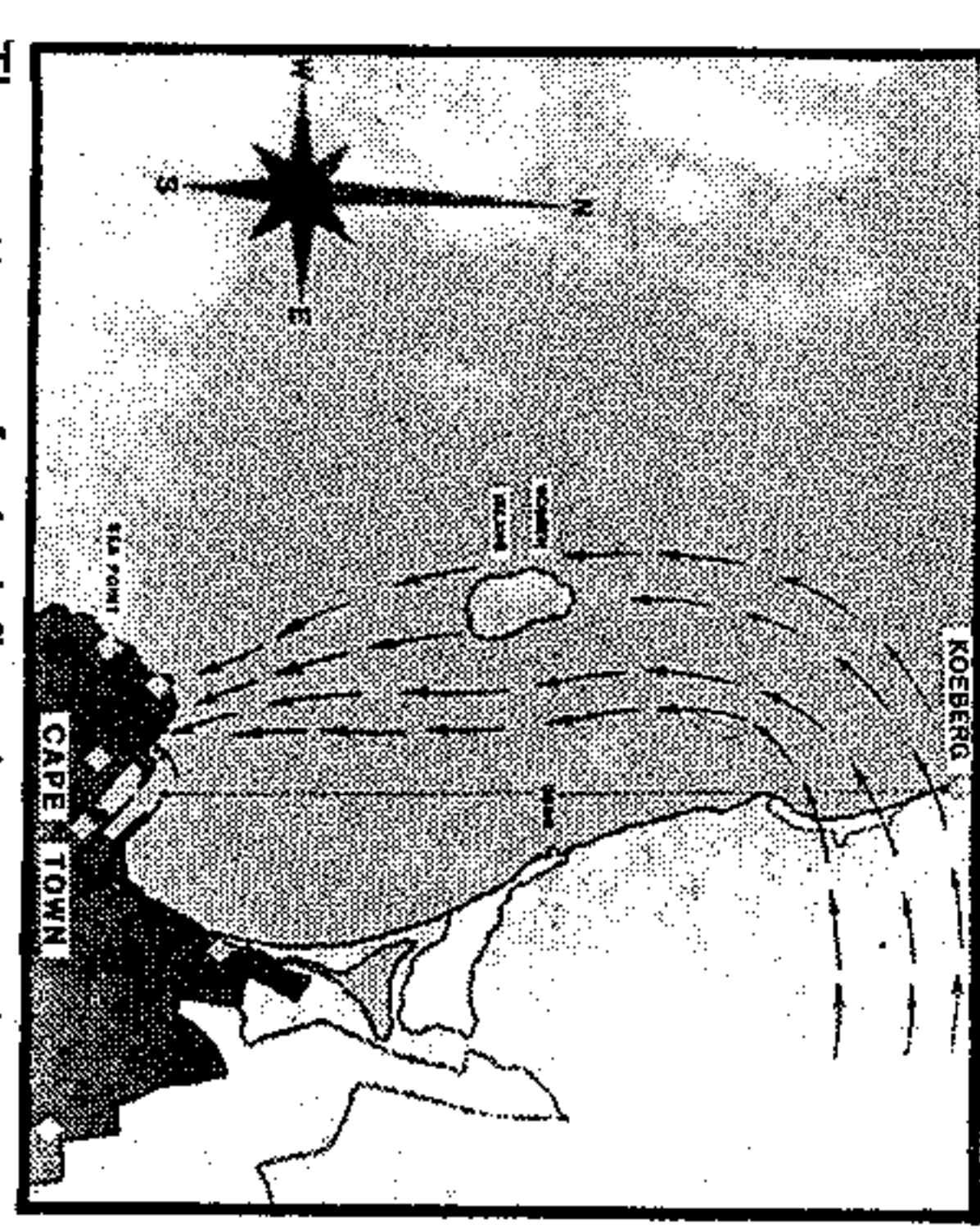
But a nuclear power station had a "stack" like any other power station. It continuously gave off gases which, two or three times weekly, were radioactive. They were released under conditions laid down by the Atomic Energy Board and efforts were made to reduce the emitted radioactivity to minimal levels.

The radioactive material was both odourless and invisible. Theoretically, if carried out to sea by wind currents and allowing for dispersion caused by distance, it was calculated not to affect radiation levels in Cape Town to any noticeable degree.

"The problem is that the meteorological picture from time to time over Table Bay is a confused one," Dr Coogan said. A survey had shown that for about 15 percent of the time, winds could reach the City from Koeberg, most likely in spring and autumn.

For this reason he had recommended installation of an independent system of monitors. The City Council approved the project in August last year. Monitors have been placed at Sea Point, Green Point, the Civic Centre, Woodstock, the Milnerton boundary and on the Epping boundary to cover the Cape Flats to the south.

The findings will be open for public inspection.



The pattern of wind flow between the Koeberg nuclear power station and the City which is prevalent about 15 percent of the year, mainly during spring and autumn. The white squares mark the position of the City's monitoring units.

Vital Sasol papers recovered after suburban car chase

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Star 20/5/82

By Sarah Pennell,
East Rand Bureau
A high speed chase through a quiet Germiston suburb last night resulted in the arrest of an alleged car thief and the recovery of important Sasol documents.

Captain Gert Viljoen of the East Rand Murder and Robbery Squad was on a routine patrol when he spotted a white Cressida which had been reported stolen earlier that day.

The car, which belongs to an employee of Sasol, was allegedly stolen early yesterday morning from outside the owner's home in Alberton.

Unknown to the thief, a stack of documents and files relating to a Sasol project was in the boot.

Captain Viljoen saw the car as it stopped to pick up two hitchhikers. He took off after it.

Numerous low shots were fired, hitting the stolen car's tires and causing it to swerve off the road. It careered through a brick wall, into the garden of a Lambton home.

Captain Viljoen shot the driver of the car in the foot as he tried to run into the house and took him into custody. The two other occupants of the car escaped.

packed overalls, paper and other contaminated material which are sealed in steel drums. The strictest radiation control measures are applied to the storage of these wastes and there is no possibility of hazard on or off site with this type of activity.

- (b) The waste products will be stored at Koeberg for a few years, until the Atomic Energy Board's site for the ultimate disposal of waste products will be ready.
- (2) Yes. However only liquids containing extremely low residual radioactivity within limits set and enforced by the Atomic Energy Board which are in accordance with international accepted standards, will be discharged into the Atlantic Ocean. Marine life and sediments will be monitored regularly to ensure that there is no build-up of radioactivity in the surrounding sea. These liquids are not considered to be radioactive waste in the true sense of the word.
- (3) Yes. The only radioactive material that will be discharged into the atmosphere will be inert gases which are not contaminating and which will not concentrate in the environment. Discharges will be made periodically at rates within limits set and enforced by the Atomic Energy Board and which are again in accordance with international accepted standards. These discharges will not significantly raise the background radiation level at the boundary of the Koeberg site, but as a further precautionary measure, flora and fauna will be monitored regularly for changes in radiation levels. These discharges will pose no threat to public health and safety.

Mr. D. J. N. MALCOMESS: Mr. Speaker, arising out of the reply given by the hon. the Minister, can he tell the House whether the wind patterns obtaining at the time will be taken into consideration before such discharges are made? [Interjections.]

Mr. SPEAKER: Order!

†The MINISTER: Mr. Speaker, as in the

case of windmills and the handling and utilization of wind for it, the most careful attention will naturally be paid to the way these discharges is handled. However, the crux of the matter is that what is being discharged is not harmful. The hon. member's question creates the impression that dangerous substances are being discharged and that the wind should therefore be taken into account. This is of course not the position. [Interjections.]

Radioactive waste

21/5/82

55 Hansard Q.61 872

*6. Mr. D. J. N. MALCOMESS asked the Minister of Mineral and Energy Affairs:

- (1) Whether radioactive waste from the Koeberg nuclear power station is to be stored on site; if so, (a) what safeguards will be taken and (b) for what period will it be stored;
- (2) whether radioactive waste will be discharged into the Atlantic Ocean;
- (3) whether any radioactive gas resulting from normal operations will be discharged into the atmosphere?

The MINISTER OF MINERAL AND ENERGY AFFAIRS:

(1) Yes.

- (a) The low and intermediary activity waste products are spent resins from water-treatment plant which are mixed with concrete and then encapsulated in thick-walled concrete drums and com-

2014 2/15/82 (55)

More nuclear power stations

MORE nuclear power stations will be built in South Africa because it will have to make increasing use of nuclear power to generate electricity, the chairman of the Uranium Enrichment Corporation said yesterday.

Dr Ampie Roux, added in an interview that South Africa would have to build bigger uranium enrichment plants to supply fuel to the nuclear power stations. — Sapa.

ROM 22/5/82 (5)

Power still cheap in SA

THE cost of electricity in South Africa, although still comparatively low, increased at a higher rate last year than in other developed countries.

This was revealed yesterday in the annual survey of comparative electricity costs undertaken by National Utility Services of New York.

The average cost of electricity in major South African cities was 17,5% higher last month than in April 1981 and average costs in the Republic were the lowest of all the countries surveyed. — Sapa.

Petrol Act: Marais found guilty

Case Tuis 22/5/82

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~~22/5/82~~

Own Correspondent

PRETORIA. — Jacobus Albertus "Jaap" Marais, leader of the HNP, was cautioned and discharged after being found guilty under the Petroleum Products Act in the Pretoria Regional Court yesterday.

Marais, 59, of Soelen Street, Rietondale, Pretoria, was convicted for contravening the Act by disclosing at an HNP public meeting held at the Pretoria City Hall on April 27 last year information about the sale, transport and procurement of petrol.

The information of the petrol came from a telex message belonging to the South African Railways in Bloemfontein.

The message was from the SAR headquarters to the district offices of the SAR.

The contents of the telex message was distributed in pamphlet form during the meeting.

According to the pamphlet, between March 22 and 26 last year, South Africa exported petrol to Zimbabwe, where there was a critical shortage of petrol.

The magistrate, Mr C F Klopper, said although the Petroleum Act provided for a R7 000 fine or seven-year jail term, he was not going to impose a heavy sentence on Marais.

The magistrate said the authorities

had not taken action against newspapers which carried reports on the sale of petrol by South Africa to the neighbouring States.

When he pleaded in mitigation of sentence, Marais handed to the court newspaper cuttings on the sale of petrol by South Africa to African States, including Zimbabwe, then Rhodesia. The cuttings included statements by cabinet members.

In his judgment, Mr Klopper said although statements by Marais at the public meeting could have endangered the safety of the country, this did not happen. He said another court might come to a different conclusion.

He said Marais, as a former member of Parliament and leader of a political party, should have realized the significance of the utterances he made during the meeting.

Cross-examined by the State prosecutor, Mr J J de Jager, Marais admitted that the information he gave about the petrol sale and its transport at the public meeting was more detailed than reports in the different newspapers.

He said in his speech he spoke about the petrol issue for only about two minutes in a speech lasting for more than two hours.

Mr I B W de Villiers, SC, with Mr B de Vos, appeared for Marais. Mr De Jager prosecuted.

'Radioactive discharge' possible from Koeberg

ARGUS
25/5/82
SS
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Divisional Council Reporter

KOEBERG nuclear power station will soon have trial runs, and there may be "a small amount of radioactive discharge into the air," the secretary of the Divisional Council, Mr W R Vivier, told members today.

He said Escom had invited the council and municipalities within a 30 km radius of the site to appoint a member and an official to a regional liaison committee.

It was agreed that Mr Clive Bilski should be one of the council's representatives.

After the meeting Mr Vivier said he had no further information about

the trial runs, or the date they would begin.

● The high cost of building has made rents "a major source of grievance in the townships," the council was told.

The chairman of the Housing Committee, Mr R C Johnstone, said he thought standards would have to be lowered so that the people the council was supposed to house could afford the rents.

Even site and service schemes would in a few years' time become so expensive that many people would be unable to build their own homes, he said.

● Mr F Lamont Sturrock asked the council to reconsider a recommendation by its Works Com-

mittee that an application to open a crèche in Hout Bay be refused.

However, the council voted 9 to 5 not to allow the crèche.

The chairman, Mr Louwtjie Rothman, said it was policy not to allow a crèche if there were any objections.

The application was by Mrs S H Ehlers, who wanted to run a crèche for 16 children aged between three and five, from 9 am to noon on weekdays at her home in Luisa Way.

The objection came from Mrs E M van Eyssen of Nootgedacht Drive.

A report from the engineer, Mr M K Botha, said the two existing crèches in Hout Bay had waiting lists.

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National Union of Leather Workers
National Union of Clothing Workers
General Workers Union of South Africa
General Workers Union
Garment Workers Union (Western Province)
Garment Workers Union of South Africa
Garment Workers Industrial Union (Natal)
Black Allied Workers Union
African Trunk & Box Workers Union
African Leather Workers Union (Transvaal)
African Garment Workers Union (Natal)
Textiles, Clothing, Leather and Footwear
African Tobacco Workers Union
National Union of Cigarette & Tobacco Workers
Rustenburg Tabakwerkersvereniging
Tobacco
Sweet Workers Union
Sugar Industry Employees Union
South African Allied Workers Union (SAAWU)
S.A. Boilem, Iron & Steelworkers, Shipbuilders and Welders
S.A. Electrical Workers Association
Western Province Sweet Workers Union
Witwatersrand Baking & Confectionery Industrial Union
Witwatersrand Brewing Employees Union

Power to the people - Escom's huge expansion plans

Star
26/5/82

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~~200~~

By David Braun

The Electricity Supply Commission (Escom) will have to build 20 base-load stations, each the size of a present-day Duvha or Matla, over the next 25 years, says Mr Jan Smith, chairman of the commission.

Matla and Duvha, in the Eastern Transvaal, at present generate 1 800 Mw and 2 400 Mw respectively. They will ultimately be able to generate 3 600 Mw each.

Mr Smith, reviewing Escom's 1981 annual report, said the expected growth over the next 25 years involved a massive expansion programme which would make exceptional demands on the country's resources, its planners and on Escom itself.

NUCLEAR POWER

In addition to the 20 base-load stations, five peaking stations would have to be built.

Within the foreseeable future, the role which nuclear power could play in

this programme would have to be indicated; at present it seems that nuclear power will be a real and necessary part of this country's electricity generating mix."

He said the basis of financing Escom's capital needs was sound. The goal of financing half of capital requirements from internal sources was being approached steadily.

"Funds for Escom's financial needs not covered by self-financing were obtained from the local and foreign capital markets at satisfactory terms. On the local markets financing was readily available and in 1981 provided 60

percent or R1 071 million of our external requirements.

"The balance of the external financing, namely R722 million, was obtained from foreign sources."

Mr Smith said Escom had set itself a major aim of continuing to reduce the cost of electricity in real terms.

Different conditions in other countries made comparisons diffi-

cult but a recent independent survey of electricity prices in 34 countries showed that the national price was the fifth cheapest and that the generation in all four countries with cheaper rates was derived predominantly from hydro-electric stations where fuel costs are not a factor.

ER

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(B.A., B.Sc.) B. Com
nomics II
(the heading on the Examination Paper)

Examiners' Initials		

Paper No. 1
(to be copied from the heading on the Examination Paper)

NOTE CAREFULLY

1. Enter at the top of each page and in column (1) of the block on this cover the number of the question you are answering.
2. Blue or black ink must be used for written answers. The use of a ball point pen is acceptable. Red or green ink may be used only for underlining, emphasis or for diagrams, for which pencil may also be used.
3. Names must be printed on each separate sheet (e.g. graph paper) where sheets additional to examination book(s) are used.
4. Do not write in the left hand margin.

WARNING

1. No books, notes, pieces of paper or other material may be brought into the examination room unless candidates are so instructed.
2. Candidates are not to communicate with other candidates or with any person except the invigilator.
3. No part of an answer book is to be torn out.
4. All answer books must be handed to the commissioner or to an invigilator before leaving the examination.

Any dishonesty will render the candidate liable to disqualification and to possible exclusion from the University

55 Hansard Q. Col. 910 - 911
Koeberg nuclear power station
26/5/82

*14. Mr. D. J. N. MALCOMESS asked the Minister of Mineral and Energy Affairs:

- (1) Whether the security measures at the Koeberg nuclear power station were recently breached by intruders; if so, (a) in what manner, (b) by how many persons and (c) on how many occasions;
- (2) whether security arrangements have since been altered;
- (3) what is his attitude in regard to the standard of the security measures in force at the Koeberg nuclear power station at present?

†The MINISTER OF INDUSTRIES, COMMERCE AND TOURISM (for the Minister of Mineral and Energy Affairs):

- (1) Yes
 - (a) and (b) On 16 May 1982 an attempt was made by three persons to gain access to a safe in the offices of one of the contractors at the Koeberg power station. This contractor's site office is outside the high security zone of the Koeberg plant. Two of the persons involved in the attempted theft were employees of the contractor and had permits to be in the contractor's area. The third was in possession of a permit belonging to a worker who at that time was apparently on sick leave. The attempted theft was foiled by security guards.
 - (c) There has been no previous breach of security.
- (2) The incident is being fully investigated and improvements will be made if necessary.

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- (3) The standard of security is considered to be adequate.

Presently provision is still being made for daily access by approximately 5 000 construction workers. As the construction programme progresses the security measures are continuously improved and will ultimately be subjected to approval by the Atomic Energy Board. Such approval forms an integral part of the licensing procedure before the station becomes operational. Furthermore, Koeberg is registered as a national keypoint and the provisions of the National Keypoint Act, 1980 (Act 102 of 1980), will be applicable.

For written reply:

(55)
**SA oil deals
reported**
Star 1/6/82

The Star Bureau
LONDON — A detailed
disclosure of the myste-
ries of how South Afri-
ca obtains its oil in the
face of an embargo by
all the Opec countries
has been made in the
British Sunday news-
paper The Observer.

New law presented

Fm 4/6/82

The Nuclear Energy Bill is being read a second time in Parliament. This important piece of legislation is intended to reorganise SA's nuclear energy structure by providing for the replacement of the present Atomic Energy Board (AEB) and Uranium Enrichment Corporation (Ucor) by one umbrella body — the Atomic Energy Corporation (AEC). It will handle most of the activities of the present institutions concerned with nuclear energy.

The Corporation is to be set up as a parastatal corporation rather than a statutory board — a format obviously intended to enable it to carry on commercial activities like uranium enrichment now performed by Ucor.

The exception to the centralising of nuclear administration under the AEC is the proposed Council for Nuclear Safety (CNS) which is clearly intended to operate independently. The CNS will take over the nuclear licensing arrangements presently performed by a division of the AEB. It would, apparently, be responsible for matters like ensuring the safety of the Koeberg nuclear power plant.

To ensure the independence of the NSC, the Bill provides that directors, officers or employees of the AEC may not be appointed members. The NSC is to consist of not more than 14 members, including an appointee from the Office of the Prime Minister and one each from the Departments of Health and Welfare, Transport Affairs and Environmental Affairs.

Members of the NSC are to hold office for a period determined by the Minister of Mineral and Energy Affairs, but not exceeding three years. The Minister may also designate not more than three AEC members to attend meetings of the NSC "in an advisory capacity."

The AEC itself will be managed by a board of directors headed by a full-time chairman appointed by the State President for a period not exceeding five years. The remaining directors will include:

- The director-general, Mineral and Energy Affairs;
- The director-general, External Affairs and Information;
- Two people "involved in the mining and extraction of "source material" (eg uranium); and
- An Escom representative.

The Bill repeals all existing legislation dealing with atomic energy. It introduces some complicated definitions with far-reaching implications. Some of the provisions of the Bill remain to be clarified by regulations which will eventually be gazetted. For example, there is a definition of "nuclear-hazard material" (ie radioactive material) which includes items like isotopes of uranium. But it is left to the State President to gazette regulations to

define the minimum concentrations of the substances to bring them within state control.

Other important matters covered are legal liability for damage caused by nuclear accidents, the licensing of nuclear powered ships for entry to SA ports, control of patents for nuclear inventions and the reservation of control of all nuclear development to the State (subject to certain licensing provisions).

At this early stage, very few comments can carry much weight. But it has been clear for some time that the separate existence of the AEB and Ucor is an historical anomaly that deserved correction.

Also, although the existing licensing arrangements for nuclear power plants provided for an adequate measure of independence, their subordination to the ultimate control of the president of the AEB could have given a different impression to the public.

Koeberg is nearing the operational stage and public fears about nuclear safety (however irrational) are growing. Hence the logic of having a clearly independent nuclear licensing authority not subordinate, even in a formal sense, to the body with the duty of developing nuclear power.

to the list especially stock inspection

id: ...

Bishop Lavis: No light matter

C. Herald 9/6/87

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THE Bishop Lavis Action Committee (Blac) is conducting a survey among the residents in the township on a burning issue — electricity.

The struggle for power in Bishop Lavis has been a long and hard one — more than 20 years.

And the longer the delay the greater the costs... which is where the survey comes in.

Residents have been told by their landlords, the Citizens Housing League, that costs have increased four-fold since the cost of electrification was first calculated in 1979. The residents have to bear the increased costs and the league wants to know if they are prepared to do so.

The league has put the question to the Matroosfontein Management Committee who is supposed to inform them of the residents' opinions.

The management committee however, enjoys little support in the township and most people have refused to deal with it.

Blac on the other hand, says it has a mandate, obtained via exhaustive house meetings and mass rallies. One such rally attracted more than 1 000 people.

The mandate they have is to represent the people of Bishop Lavis in their fight to have electricity installed in their homes.

This is why it has now sought the opinion of

the residents through the survey.

The results will be forwarded to the league.

The management committee meanwhile, has

yet to consult residents, according to Mr Edward Barlow, a member of the committee. They are planning a few mass meetings he said.

The committee was first asked by the league to obtain the feeling of the residents in March this year.

What users will pay

ONCE electricity is installed in Bishop Lavis, each resident will pay a minimum of R11 a month — even if no electricity is used.

And to have electricity installed would require a deposit of R50.

These figures were obtained from the March newsletter of the social welfare section of the Citizens Housing League, owners of Bishop Lavis.

The publication quotes the league's general manager, Mr F

W Pohl.

It now appears that the League will need to apply for a loan of nearly R4-million (R1-million in 1979) for the project. The League hopes the government will grant it at one percent interest, according to Mr Pohl.

If this loan is granted, and based on present-day costs, the "average individual consumer" will have to pay the following to electrify his house:

● A deposit of R50 in

cash.

● An extra R5.24 per month on average for interest and redemption on the above loans.

● A fixed minimum charge of R5.72 pm, for which a fixed number of units will be supplied, according to Escom tariffs at the time.

● All electricity consumed over and above the minimum quantity contemplated at Escom's tariffs as applicable from time to time. This amount will depend on individual consumption.

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(55) ROM 10/6/82

Oil from Jojoba is a high risk business

DON MARSHALL
Pretoria Bureau Chief

JOJOBA oil production should be viewed as a high risk venture. Dr J T Meynhardt, deputy director of the Horticultural Research Institute in Pretoria, said yesterday.

The institute has received numerous enquiries concerning the oil-bearing potential of this Mexican plant, which is said to thrive in arid climates.

Preliminary trials have shown the plant will not bring new wealth to arid parts of South Africa because it cannot stand frost.

Virtually nothing is known about crop yields except that some jojoba plants may pro-

duce commercially significant yields a minimum of four to five years after planting.

Jojoba oil and seeds at present command an extremely high price because of their scarcity.

But from 1985 oil and seed from large acreages planted in the United States before 1980 will reach the market and supply may then exceed demand Mr Meynhardt said.

Jojoba oil is not likely to compete with other oils in its market or in the pharmaceutical manufacturing market because indications are that it cannot be produced at a price competitive with those oils presently supplying these markets. Mr Meynhardt said.

A new Sasol child is born

(55)
Star
12/6/82

By Jaap Boekkool

A dazzling contortion of steel structures has risen on what was once a Transvaal sunflower field — and soon its pipes, crushers, synthesisers, extractors and reactors will begin producing petrol.

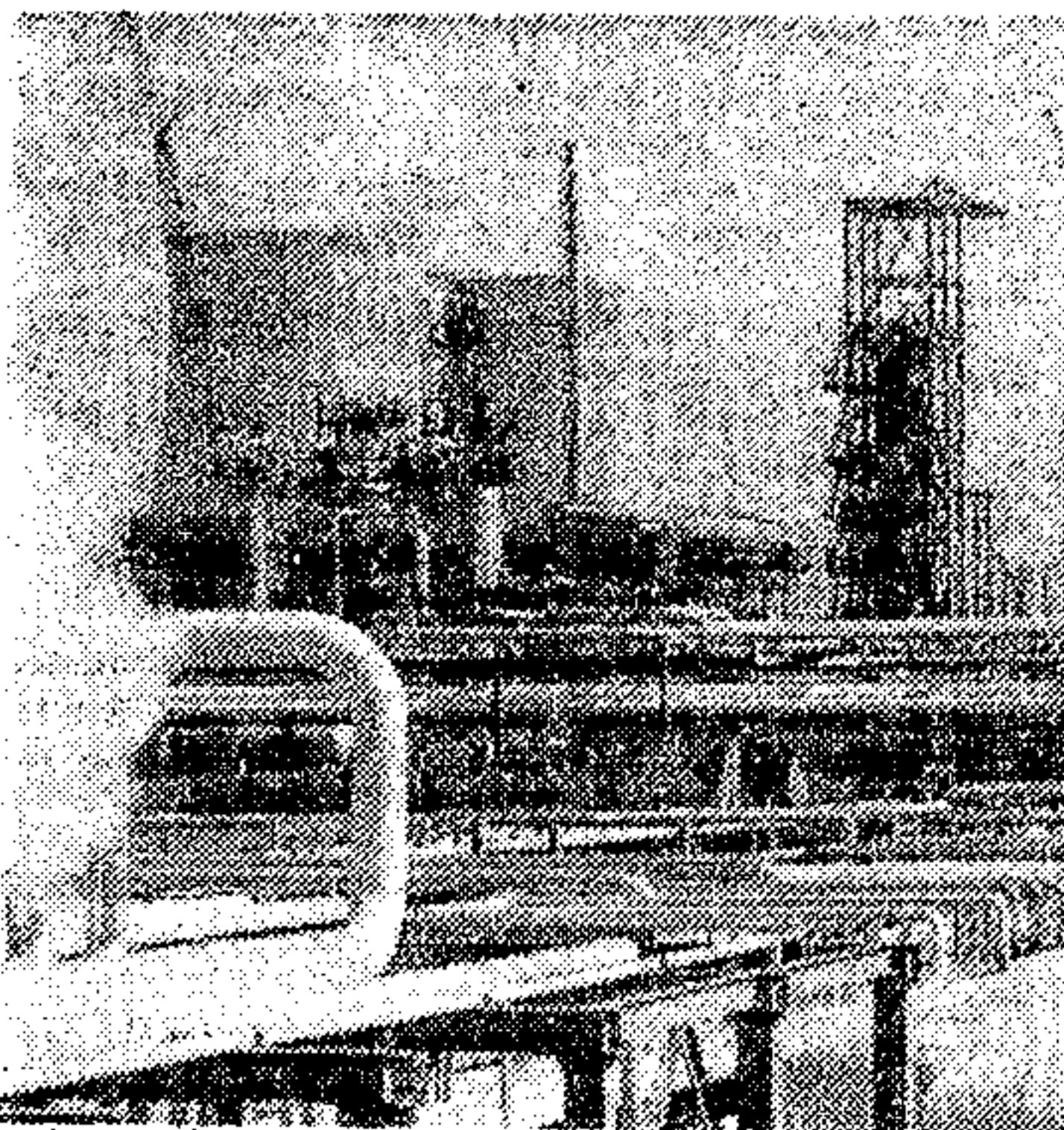
From a distance Sasol 3, flanked by Sasol 2, looks monstrous. But there are some spectacular sights, like giant gas flames, plumes of steam and cooling towers that could contain the Carlton Centre.

In August the plant will begin converting oil-from-coal to petrol which will flow from all the pumps in the Highveld — be they Mobil, Shell, Esso, Trek or whatever.

Building the new Sasol plant next to Sasol 2 meant a saving of R500 million. But if that sounds like a fortune, bear in mind that together the plants swallowed up R6 000 million in construction costs.

Legislation prohibits the publication of production details but a Cabinet Minister is on record that the Sasol plants will eventually give South Africa about 48 percent of the fuel it needs.

This means a saving of thousands of millions in foreign ex-



Steel, stacks and stills, a bewildering maze at Sasol 3.

change, and seen in this light the capital costs begin to look less prodigious.

Facts about Sasol 3 read like a book of records. Its daily coal consumption — from the four mines that feed both plants — would fill a coal train with 2 000 trucks. That train would have to be 40 km long.

It gulps down about 200 000 000 litres of water — enough for seven million human baths — and breathes in 26 000 tons of ox-

ygen a day.

Sasol 3 will also be producing diesel, bunker oil, creosote, phenols, air fuels and sulphur. And that's not all — even acetone for tarnished fingernails will flow from the plant.

The Sasol industry has made Secunda the third largest rural town in the Transvaal with about 30 000 inhabitants. Nearby Trichord's population has grown from 600 to 3 500.

There's no word on Sasol 4 yet.

Municipality cushions hike in Escom rates

12/6/82
D. Dispatch

55

EAST LONDON — The municipality will not pass the full six per cent hike in Escom's electricity charges to consumers.

The city electrical engineer, Mr K. Robson, yesterday said although the municipality would pay the full six per cent to Escom they would increase their own charges by approximately five per cent.

The six per cent hike, effective from July 1, will be achieved by reducing the consumers' discount on existing tariffs from 16 to 11 per cent. The discount will only be reflected on the accounts of consumers who bought electricity directly from Escom. They include the municipality and consumers in Beacon Bay and Goube.

The increase would be reflected as a five per cent surcharge on consumers' bills in the East London area, Mr Robson said.

The municipality was not out to make money and was only interested in recovering additional expenditure as a result of the six per cent Escom hike.

"This is why we will raise our charges by five per cent," he added.

Explaining how the discount-surcharge system operated, an Escom spokesman, Mr M. Opperman, said that when yearly tariffs were formulated it was borne in mind that a predetermined amount of revenue had to be acquired to cover operating expenses.

The tariffs were, however, designed to bring in more than was needed.

In order to bring in only the predetermined amount, consumers were subsequently given a discount. When more revenue was required to cover additional unbudgeted expenses the tariff was not adjusted, the discount was re-

duced, Mr Opperman said.

When the discount reached zero, consumers would then pay a surcharge. This could be increased without altering the tariffs which were normally increased in January each year.

"When the surcharge is about 25 per cent of the tariff then we apply to increase the tariff.

The whole idea of the system was to save time and money.

East London consumers will, however, still benefit as a result of the government's regional development concessions and can expect their accounts to drop by up to 22 per cent, Mr Robson said. — DDR

Cabora Bassa power back on line ^{16/6/82}

55

Mercury Reporter

Mercury

ELECTRICITY exports from Mozambique to South Africa have resumed after a six-month break.

Mr F J Bradbury, Escom's assistant regional manager, Engineering Services, said that while the Cabora Bassa supply was of assistance to South Africa, the political situation made it unstable and unreliable.

When it was on it was fed into the interconnecting grid for use throughout the country, and since it was a cheap form of electricity South Africa would continue to use it as long as it was available.

However, he said, even with the Cabora Bassa supply

on, it was not possible to dispense with load-shedding.

'On Monday night we had the supply from Cabora Bassa when the power cuts occurred in Durban, but we still had no alternative but to shed the load,' he said, pointing out that this would improve only when Escom's new stations were completed.

According to the Cabora Bassa Hydroelectric Company, one of the two power lines from the dam to the South African border had been repaired and transmission to the Escom had resumed on a regular basis.

The lines were knocked out last December during fighting between the army and guerillas opposed to Frelimo.

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ACT

To provide for the establishment of the Atomic Energy Corporation of South Africa, Limited, and of a Council for Nuclear Safety, and to define the powers and functions of the said Corporation and Council; to regulate the licensing of certain nuclear activities and security in connection therewith, and the liability in respect of nuclear damage; to provide for the control of source material, special nuclear material, restricted material and radio-active nuclides, and in respect of certain patents for inventions relating to nuclear or atomic energy; and to provide for matters in connection therewith.

*(Afrikaans text signed by the State President.)
(Assented to 9 June 1982.)*

BE IT ENACTED by the State President and the House of Assembly of the Republic of South Africa, as follows:—

CONTENTS

		<i>Sections</i>
	Definitions	1
5	CHAPTER I The Atomic Energy Corporation of South Africa, Limited	2-18
	CHAPTER II Production of nuclear or atomic energy	19-23
	CHAPTER III Council for Nuclear Safety, and licensing of nuclear activities ...	24-46
10	CHAPTER IV Control of source material, special nuclear material, restricted material, radio-active nuclides and radio-active waste	47-54
15	CHAPTER V Patents for inventions in respect of nuclear or atomic energy	55-66
	CHAPTER VI General provisions	67-84

1. (1) In this Act, unless the context otherwise indicates, any expression to which a meaning has been assigned in the Patents Act bears the meaning so assigned thereto, "radio-active nuclide" has the ordinary scientific meaning assigned to it but for the purposes of this Act does not include source material and special nuclear material, and—

25 (i) "board of directors" means the board of directors of the corporation referred to in section 5; (xix)

for full text see acts B-2

Power
plus
after
big
switch-on

55
MCP
17/6/82

Mercury Reporter
NATAL'S most powerful hydro-electric station, built in stages over more than a decade at a cost of almost R500 million, is finally complete and functioning at full capacity.

And a flick of a switch was all it took to commission the last of the Drakensberg power scheme's giant electricity-generating units, four of which now each produce 250 MW.

The total 1 000 MW output contributes to the Escom's national grid but can be specifically diverted to feed local lines should the national supply to the area be disrupted, an Escom spokesman said.

Mr John Bradbury, assistant regional manager, said such precautionary measures were an inherent part of Escom's long-term planning.

The Drakensberg station was sufficient to meet Durban's total power requirements, but much more was needed to feed the rest of the province.

Nothing further had been heard of plans to build an even larger plant tentatively mooted to be sited near Mandini and which would draw water from the Tugela River.

Unreliable

But an announcement was expected to be forthcoming soon.

Not even the recent recommencement of power supplies, or 'electricity imports', from the Cabora Bassa scheme in Mozambique to South Africa was enough to meet national requirements, Mr Bradbury said.

While the Cabora Bassa source was of assistance to South Africa, experience had proven it to be unreliable through prevailing political instability. But it would continue to be used to offset the shortfall.

More than R15 billion is budgeted for expenditure by Escom on enlarging and improving the country's electricity supply grid over the next eight years.

The bulk of the money will be spent on seven new power stations, most of which will be in the Highveld.

Meanwhile, Escom charges for Natal consumers will be increased by about 7,5 per cent from July 1.

R2-million IN THE ARREARS

Sowetan 18/6/82

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18/6/82

SOWETO residents still owe the Soweto Council more than R2-million in electricity bills despite the council's threat last year to cut off the supply of those in arrears.

In an interview with *The SOWETAN* yesterday, Mr Nico Malan, Soweto Council's chief executive officer, said they were, however, pleased that the deficit was showing signs of decrease every month by R100 000.

He said there had been tremendous improvement in payment. At the end of January, the deficit stood at almost R2,4-million but at present the balance was R2,2-million.

"We are happy with the response from the residents who are showing responsibility in settling their accounts. We are also going to continue with our effort to appeal and encourage householders to pay their bills on the date due regularly," he said.

On the other hand, Mr Malan said, they would continue to cut off the lights of those people who owed more than two months. If these people acted irresponsible, they had no alternative but to take action, he said.

He explained that many residents were shocked when they re-

**By NKOPANE
MAKOBANE**

ceived high bills. The reason was that the electricity arrears were worked on a two-month basis because the computer processing the bills for the whole Soweto area was at the Jubilee Centre in Johannesburg.

The Council was presently working on plans to install computers at all the township managers' offices. As soon as this was done, residents would then receive electricity bills at the end of each month.

Once computers were installed at all offices, he did not foresee problems in the future with electricity bills even when all of Soweto had electricity installed.

Late last year it was reported that residents owed the council R2,5-million in arrears at the end of August. The

council, it was said, had to pay Escom R2-million a month out of its coffers in order to ensure that the electricity supply was not cut in the township.

The council had then threatened to cut off the lights,

55 RDM
23/6/82

Nuclear fission creates new body

ALL State-financed nuclear activities in South Africa would from July 1 fall under the Atomic Energy Corporation of South Africa, the Minister of Mineral and Energy Affairs, Mr F W de Klerk, announced in Pretoria yesterday.

He said the change was the first major step in the restructuring of the country's nuclear activities.

The Uranium Enrichment Corporation of South Africa and the Atomic Energy Board would be re-established as full subsidiary companies of the AEC, he added.

They would in future be known respectively as the Uranium Enrichment Corporation of SA Pty (Ucor) and the Nuclear Development Corporation of SA Pty (Nucor).

Dr J W L de Villiers, president of the Atomic Energy Board, will serve as the first full-time executive chairman of the AEC.

The other members of the AEC board will be: Mr S J P du Plessis, director-general of Mineral and Energy Affairs, Mr D A Etheredge, chairman of Nufcor, Mr G A MacMillan, chairman of the Palabora mining group, Mr J H Smith, chairman of Escom, Mr J A Stegmann, managing director of Sasol, Dr N Stutterheim, chairman of Telephone Manufacturers of SA Pty and vice chairman of Mintek, Mr Donald Sole, outgoing Washington Ambassador, and Mr J van Dalsen, director-general of Foreign Affairs and Information.

Dr W L Grant will remain on as managing director of the Ucor subsidiary, while Dr J H P Hugo, presently the deputy president of the Atomic Energy Board, will be appointed managing director of the Nucor subsidiary.

Mr De Klerk paid lavish tribute yesterday to Dr Ample Roux, chairman of Ucor and the "father" of the country's nuclear and energy research development programme, who recently announced his retirement.

"When Dr Roux's proposals for a national nuclear research programme were accepted in 1959, the National Research Centre was established at Pellindaba — a name which through Dr Roux's endeavours gained world-wide recognition for South Africa, and also for him personally."

AA opposed to petrol levy, road toll plan

ARGUS
23/6/82

AA
55

THE Automobile Association of South Africa has strongly condemned the Government's road toll plan and the R5 after-hours petrol levy and has urged the State to revise motor vehicle licence fees to end the unfair burden on passenger car owners.

In his address to the 53rd annual meeting of the AA in Johannesburg, the president, Mr P D Leppan, said the AA's fear that Government road funding may be relegated to the less important category of "also-rans" appeared to be justified.

Mr Leppan said the AA was firmly opposed to toll roads. Its opposition was one of principle that revolved around its objec-

tion to what amounted to a tax on a section of the community (the toll payer) and on certain sections of road only.

"The AA fears that as more and more toll projects are introduced, so more and more of the road user's present levies will be absorbed into general revenue for the provision of, for instance, housing and schools."

What was usually forgotten when alternative routes were suggested was that they would probably be longer and less comfortable than the toll road.

PENALISED

"Those who are compelled to use this alternative to save money will in fact be penalised by being forced to embark on a more costly roundabout trip," Mr Leppan said.

When toll fees were higher, congestion would increase on alternative routes.

The AA, Mr Leppan said, was also opposed to substituting the permit system with a R5 levy. The levy imposed a selective tax on the motorist for the personal benefit of a particular section of the community.

"Furthermore, the revenue derived from the levy bears no relationship either to fuel conservation or to decreasing South Africa's dependence on imported crude oil."

A fact too easily overlooked was that before 1973 "normal" petrol selling hours were consi-

dered to be 24 hours a day all year round.

If circumstances warranted the discontinuation of the permit system, the situation should have been overcome by allowing filling stations to remain open beyond the statutory hours as a matter of choice.

"The purchaser of a small quantity of fuel is taxed far higher than the purchaser of a large quantity. Also, the levy imposes an additional burden on national servicemen and on those faced with emergency travel.

"The AA believes it will be extremely difficult for filling stations to control the system."

ROAD DAMAGE

Speaking about licence fees, Mr Leppan said that because road construction standards were dictated by the demands of heavy vehicular traffic — which was also responsible for much of the damage caused to road surfaces — it followed that licence fees should be structured so that cost responsibility was apportioned according to the use of and damage caused to roads.

"Because of the high level of cross subsidisation by the private motorist of the heavy lorry owner, it is of the utmost importance that urgent attention be given to a complete revision of the present licensing systems with a view to eliminating the unfair cost burden borne by passenger car owners." Mr Leppan said.

ETAN, Thursday, June 24, 1982

~~5-3~~ 5-3

Sowetown

24/6/82

Hostel inmates angered by power failure

By MONK NKOMO

ABOUT 1 000 Saulsville hostel inmates, who suffered a major electrical-power failure on Monday night, have threatened to smash all the windows of the buildings should the incident occur again. The SOWETAN was told yesterday.

About 1 000 men staying in blocks W1, W2, W3 and Y confronted the local administration board police after a power failure at about 6 o'clock on Monday night. Their representative, councillor H Nchabeleng, said the men had just started cooking when the light went off.

He added: "They were angry and demanded an explanation from the police. They threatened to smash all the windows should there be another power failure in future. The men were fed up because some of them had just put mealie-meal in their pots when the incident occurred."

At the council's monthly meeting yesterday, Mr Tshabalala warned: "Let them just break one window and they are all gone. The whole township is experiencing constant power failures and that does not give the hostel inmates a licence to threaten us."

Asked how they would alleviate the problem

of power cuts, community council leaders said a substantial amount of money had already been set aside to develop the present electricity network.

● In another move, a delegation of three community councillors has been appointed to meet with the local South African Police following the reign of terror conducted by the notorious Zebra Gang. The meeting followed a letter of complaint from the director of business undertakings, who feared that the gang might eventually "harm the image of our product, Zebra Beer, because of the name they have adopted."



U S talks of nuclear items to tempt S A

N A

EVERY CANDIDATE MUST enter in column (1) the number of each question answered (in the order in which it has been answered); leave columns (2) and (3) blank.

All answers

Number
Number

Surname

First Name

Date

Degree/Diploma you are registered for

Subject (to be copied from the heading on the Examination Paper)

Paper No. (to be copied from the heading on the Examination Paper)

WASHINGTON—Reagan Administration officials told Congress yesterday that exports by the United States of 'non-sensitive' nuclear-related items to South Africa might help prod Pretoria toward accepting full-scale nuclear safeguards.

Mr Carlton Stoiber, a State Department official, contended that 'willingness to consider favourably a small number of non-sensitive transfers to South Africa's nuclear programme can serve as an inducement to South Africa to be more forthcoming on non-proliferation issues'.

Such nuclear-related exports 'have in no way undermined US non-proliferation objectives', said Mr Stoiber, director of the department's office of nuclear export and import control, in testimony before a House of Representatives panel.

South Africa has refused to sign the Nuclear Non-proliferation Treaty or to accept full international safeguards on all of its nu-

clear facilities.

In recent years, there has been speculation that South Africa aimed to achieve a nuclear weapons capability — and may already have built and secretly tested an atomic device.

Mr Jonathan Bingham, chairman of the Foreign Affairs Sub-committee on International Economic Policy and Trade, said that among exports that commerce was considering for South Africa was helium-3, which can be used to make tritium, a form of hydrogen utilised in thermonuclear weapons.

Also testifying at the session was Mr Archelaus Turrentine, an official of the arms control and disarmament agency.

Regarding South Africa, he said: 'The export of certain dual-use items with appropriate assurances can be part of a step-by-step process to securing our nuclear non-proliferation objectives.' — (Sapa-AP)

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Mercury

26/6/82

	Internal	External
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Examiners' Initials		

NOTE CAREFULLY

1. Enter at the top of each page and in column (1) of the block on this cover the number of the question you are answering.
2. Blue or black ink must be used for written answers. The use of a ball point pen is acceptable. Red or green ink may be used only for underlining, emphasis or for diagrams, for which pencil may also be used.
3. Names must be printed on each separate sheet (e.g. graph paper) where sheets additional to examination book(s) are used.
4. Do not write in the left hand margin.

WARNING

1. No books, notes, pieces of paper or other material may be brought into the examination room unless candidates are so instructed.
2. Candidates are not to communicate with other candidates or with any person except the invigilator.
3. No part of an answer book is to be torn out.
4. All answer books must be handed to the commissioner or to an invigilator before leaving the examination.

Any dishonesty will render the candidate liable to disqualification and to possible exclusion from the University

By MIKE WADDACOR

THE small, sparsely developed Transvaal town of Amersfoort is gearing itself up for a boom following Escom's proposals to build a power-station near the town.

Town Clerk Jan Fick says rents and property prices in Amersfoort have trebled since Escom's announcement was made earlier this year.

This property trend is likely to continue rising, he added.

200 55 S. Times 27/5/82

Escom power will boost small dorp

The town, in the farming district of the south-eastern Transvaal, which has a population of about 5 000 and very little commercial development, has

been speculating enthusiastically since Escom's announcement.

The station, according to both Mr Fick and an Escom spokesman, will be built "somewhere" between Amersfoort and Volkrus. It will be "one of the biggest" power-stations in the country.

The site for the station will be decided in the near future and construction is expected to start next year. It is scheduled to come into operation by the end of 1988.

WASHINGTON — Reagan Administration officials have told Congress that exports by the United States of "non-sensitive" nuclear-related items to South Africa may help to prod Pretoria towards accepting full-scope nuclear safeguards.

Carlton R Stoiber, a State Department official, contended that "willingness to consider favourably a small number of non-sensitive transfers to South Africa's nuclear programme can serve as an inducement to the South Africans to be more forthcoming on non-proliferation issues."

Such nuclear-related exports "have in no way undermined United States non-proliferation objectives," said Mr Stoiber, director of the Department's Office of Nuclear Export and Import Control, in testimony before a House of Representatives panel.

SAFEGUARDS

The South African Government has refused to sign the Nuclear Non-proliferation Treaty or to accept full-scope international safeguards on all of its nuclear facilities.

In recent years there has been speculation that South Africa aims to achieve a nuclear weapons capability and may already have built and secretly tested an atomic device.

Representative Jonathan Bingham, chairman of the Foreign Affairs sub-committee on inter-

'Supply of nuclear items may prod SA into line'

SS
Stoiber
22/6/82

national economic policy and trade, noted that atomic exports approved by the Commerce and Energy departments were not subject to restrictions as tough as those governing export licences issued by the Nuclear Regulatory Commission.

"This inconsistency can undercut our nuclear non-proliferation policy which aims to keep nuclear fuel out of the hands of countries that seem bent on developing nuclear weapons," Mr Bingham said.

WEAPONS

The New York Democrat said that among exports that the Depart-

ment of Commerce was considering for South Africa was helium-3, which would be used to make tritium, a form of hydrogen used in thermo-nuclear weapons.

Mr Bingham added: "Many of us in the Congress have read with great concern news stories reporting that Westinghouse hopes to sell a nuclear power reactor through a third country to Pakistan which, like South Africa, is ineligible for NRC-licensed exports."

He asserted that the energy department now had a "blanket authorisation" on nuclear exports "so permissive that it would cover the proposed Westinghouse sale to Pakistan

even if that country detonated a nuclear device or used such a device against another country."

Mr Stoiber told him that State and Energy Department officials have reviewed the situation. "They agree that revisions to the Part 810 General Authorisation (for the Department of Energy) should be promptly adopted.

WILLINGNESS

"These regulatory amendments are in the final stages of inter-agency consideration," he said.

Also testifying at the session was Mr Archelaus Turrentine, an official of the Arms Control and Disarmament Agency.

Regarding South Africa, he said "The export of certain dual use items with appropriate assurances can be part of a step-by-step process to securing our nuclear non-proliferation objectives."

Turrentine, ACDA's Deputy Assistant Director for nuclear and weapons control, contended that such exports could not contribute "in any measurable way" to a programme for developing nuclear explosives.

"However, they can constitute an indication of US willingness to be co-operative if South Africa moves towards acceptance of safeguards on all of its nuclear facilities or adheres to the NPT," he said.—Associated Press.

Nuclear fuel delivered to Koeberg

Safety council being formed to check on SA atomic plants

56
29/6/82

Mail Correspondent

CAPE TOWN. — Enriched fuel is now on site at the Koeberg nuclear power plant.

Confirming that fuel deliveries had begun, an Escom spokesman said yesterday the plant's No 1 generating unit would begin feeding the national grid early next year.

He declined to comment on fuel quantities or methods of delivery.

Hot testing of the No 1 unit was completed in April as a prelude to the loading of the nuclear fuel.

When fully operational at the end of next year, Koeberg's 1 842 megawatt output should supply about 10% of the national power grid.

Pretoria Bureau

THE maintenance of stringent safety measures at nuclear plants will be ensured by a statutory body to be formed this week, says South Africa's new nuclear chief, Dr Wynand de Villiers.

The body — the Nuclear Safety Council — would function independently from the new Atomic Energy Corporation of SA, which would also be formed this week, Dr De Villiers said.

He hoped much of the criticism levelled at the Atomic Energy Board in the past — because the body that promoted nuclear power was also responsible for regulating it — would be offset by

the safety council.

No members of the Atomic Energy Corporation would be permitted to serve on the safety council and no licences would be issued to nuclear plants without the safety council's approval.

Dr De Villiers said the next likely areas where nuclear power stations would be established were in the Eastern Cape and the Natal coastal regions.

It had been estimated that by the year 2 000, up to 25% of South Africa's electricity capacity could come from nuclear power, Dr De Villiers said.

Mr Derrick de Villiers, former Opposition spokesman

on Energy Affairs, welcomed the formation of the new safety council.

"Earlier a committee of the Atomic Energy Board was responsible for the safety aspect but it was always subordinate to the president of the board," Mr De Villiers said.

The members had no direct access to the Minister and their decisions could have been overruled by the board.

Members of the new council would be drawn from outside the corporation, but, Mr De Villiers said, to some extent they would still have to rely on the expertise of corporation members.

Power cuts soon, unless wastage stamped out now

Industrial Week 29/6/82

55

By Hugh Poulter

SOUTH AFRICANS must become more energy saving conscious due to the rising costs of electricity and the possibility of power shortages in the future.

Even though Escom is expanding at the tremendous rate of between 8% and 10% a year, there is only a 10% spare power capacity.

This means that if a power station goes off line electricity shortages could result.

"Escom has planned its growth rate to coincide with the growth rate of SA and to keep pace with the demands of the country," says Professor Jan Reynders, of the Power Engineering Department at Wits University.

"But last year Escom almost got into difficul-

ties, it did not get much power from Caborra Bassa and it also had to rely on local funding for expansion programmes."

"Fortunately the Chamber of Mines agreed to help Escom last year by stopping heavy power consuming operations during peak electricity hours.

"This meant the man in the street was not effected too much by the power shortages," says Prof Reynders.

"By only having a 10% spare power capacity there can be no maintenance work during winter and there could be serious repercussions if there was a breakdown in the country's power grid system."

Prof Reynders says Escom is doing all it can to

keep ahead of power demand and at present half the power generating plant manufactured in the Western world is destined for SA.

He adds that growing at a rate of 10% means that Escom has to double its power supply every eight years.

"The price increases should be enough for South Africans to realise the need to conserve energy," says Reynders.

Les James, president of the Institute of Electrical Engineers says he is confident that Escom will keep ahead of demand, but we will have to become much more power conscious.

"Escom at present has several very large projects on line that will be completed in five to seven years and these should secure an adequate power supply for some time to come" says James.

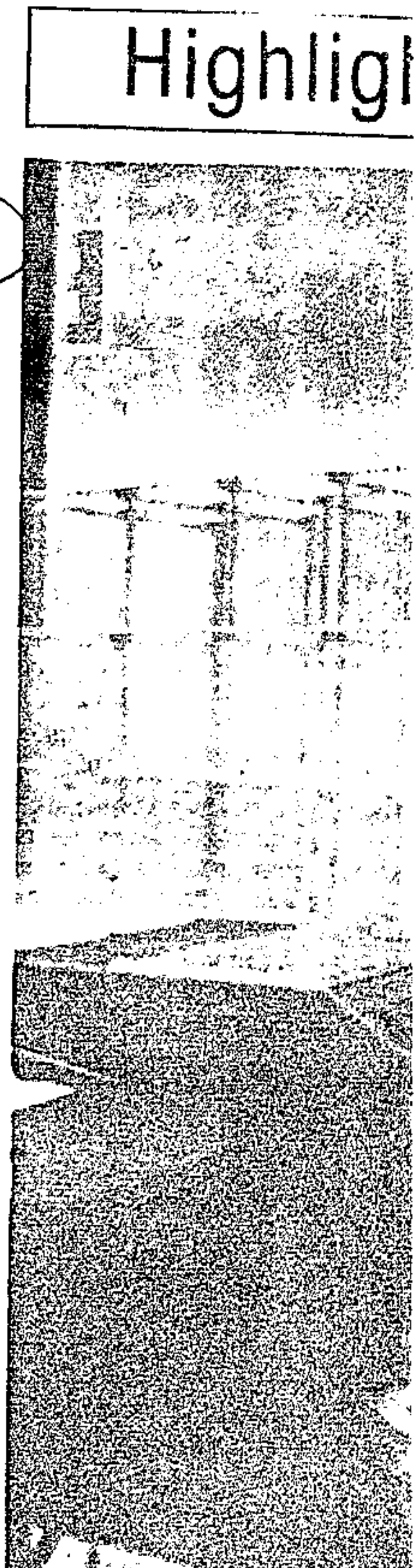
Bank taps cheap energy source

ALTHOUGH the majority of energy sources can only be harnessed at great expense, there are a few that can be exploited relatively cheaply.

For example, a bivalent water/water heat pump is utilising the heat of the water from a nearby harbour basin to air-condition the branch office of a bank in northern Germany.

In summer, it is used to cool the air for the air conditioning system and in winter, the installation operates as a bivalent heating system.

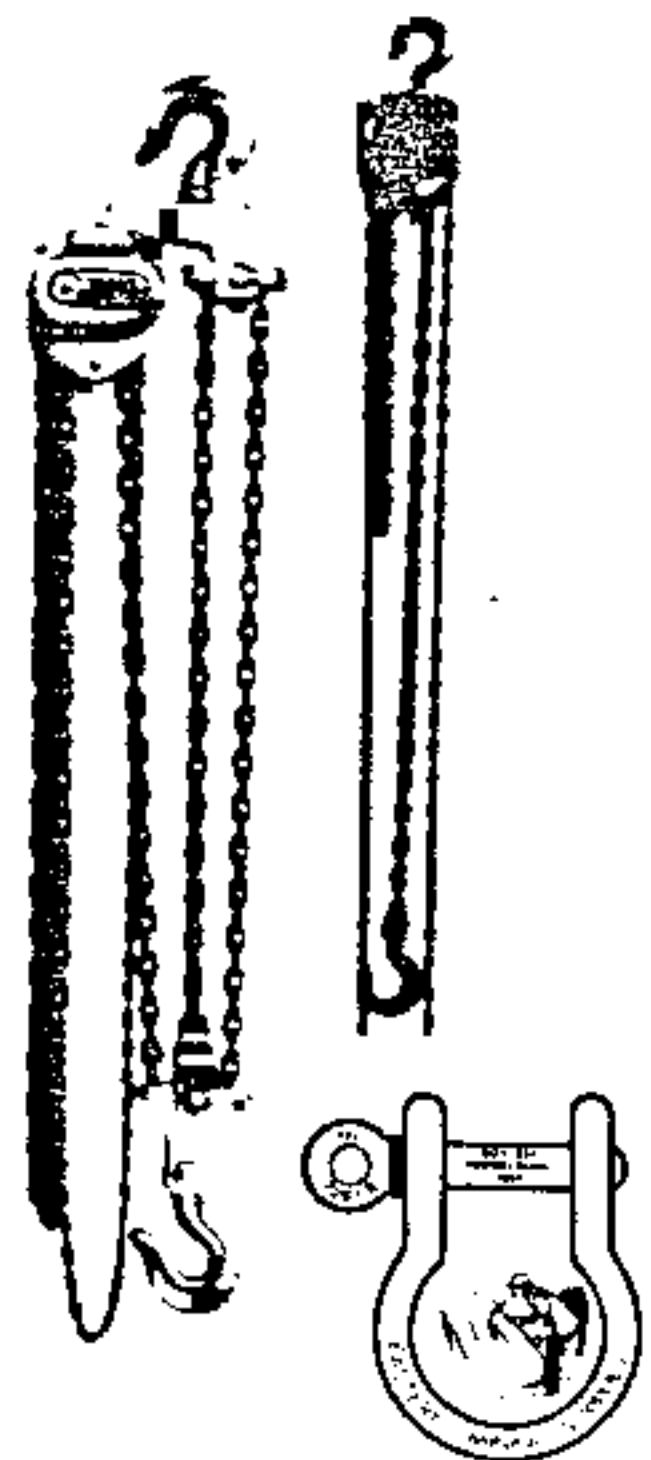
The building has an enclosed space of 12 000m³ and the system supplied by Suizer Escher Wyss is designed for economical operation all the year round.



Peter Mancor, MD of Peter M. Mancor laser technology — computer re

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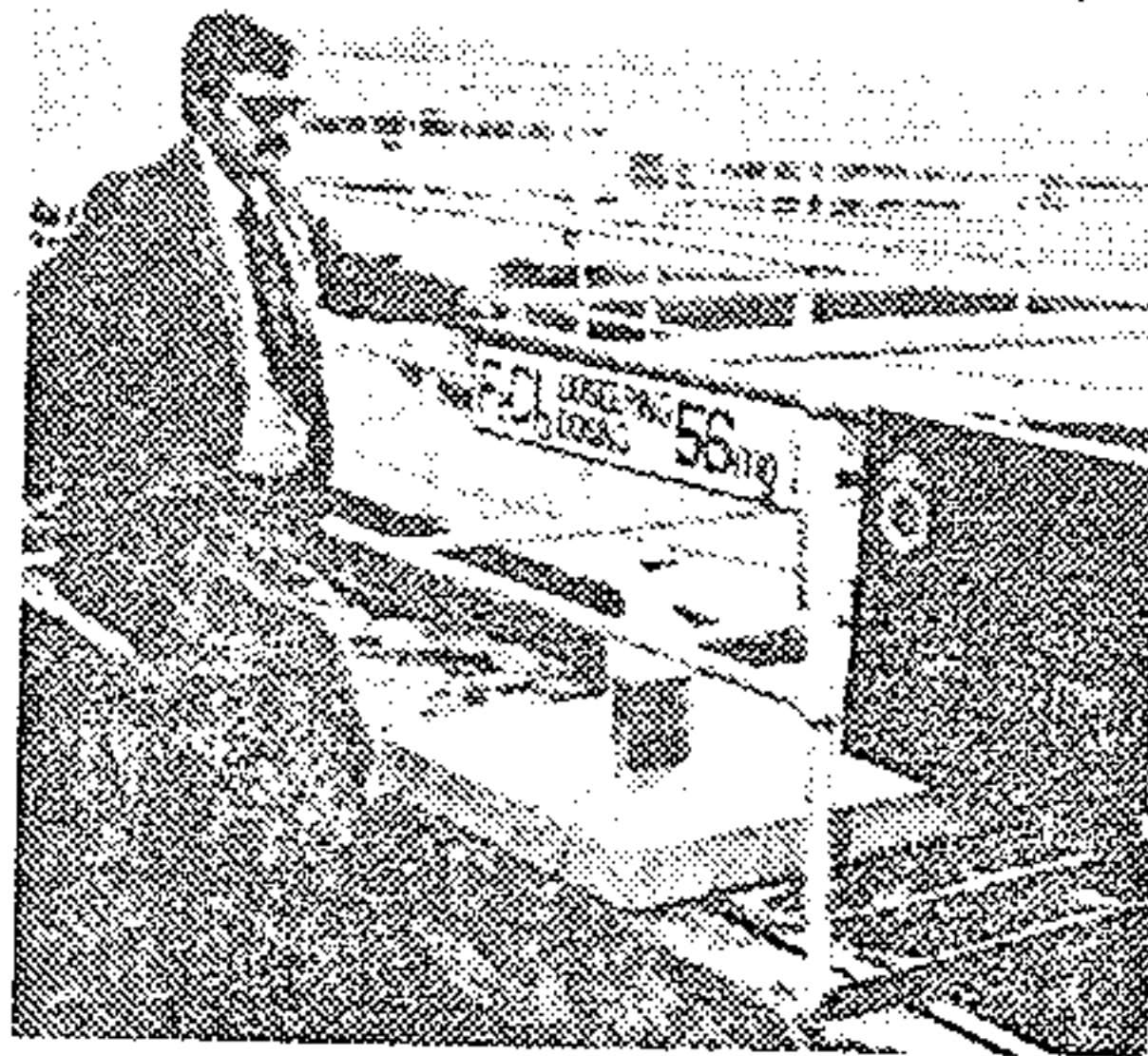
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Good chance of nuclear power station for E Cape

55 E. Post 29/6/82

Post Reporter

THE probability of a nuclear power station being built in the Eastern Cape was "high", according to a spokesman for the Electricity Supply Commission (Escom).

But "there is nothing on the cards at the moment", the Escom spokesman said — although coastal sites far from coal fields and without hydro-electric power generation facilities would be prime choices.

"We have to acquire ground long before we start a project," he said.

He was commenting on an announcement in

Pretoria yesterday by the new executive director of the Atomic Energy Corporation, Dr Wynand de Villiers, that a power station similar to the one at Koeberg could be established in the Eastern Cape in the foreseeable future.

He said it would be profitable to establish plants in the Eastern Cape and on the Natal coast.

The Progressive Federal Party spokesman on mineral and energy affairs, Mr John Malcomess, who is also the MP for PE Central, said he didn't object to a nuclear plant in the East-

ern Cape if it was going to make electricity cheaper.

The siting of the station would have to be carefully considered and placed as far as possible from centres of dense population.

Personally he would prefer hydro-electricity schemes. He emphasised the importance of local authorities being consulted fully before the selection of a site.

Port Elizabeth's electrical engineer, Mr C E Adams, said he was not aware of any plans for a nuclear power station in the Eastern Cape.

In Pretoria, Mr De

Villiers also said an independent council to control security arrangements for all nuclear installations in the country would soon be created.

This would be known as the Council for Nuclear Security and would function separately from the Atomic Energy Corporation. Staff of the corporation, its affiliates or Escom would not be allowed to serve on it.

He said the council would have the power to veto the licence application of any nuclear installation and would advise the Government on all aspects of nuclear security.

Sapa-Reuter reports from Henryville, Pennsylvania, that this meeting is the first opportunity for the doctors to observe eight living cases of progeria

pictures of the young patients, and no interviews were allowed with them because doctors feared this would put too much strain on the often painful-

Parents were also exchanging practical information, such as where to find clothes for thin teenaged children

Valindaba beat the US nuclear fuel ban

By DON MARSHALL
Pretoria Bureau Chief

SOUTH Africa last year beat the American ban on nuclear fuel supplies for the Atomic Energy Board's Safari Reactor by obtaining sufficient enriched uranium from the pilot plant at Valindaba. Mr F de Klerk, Minister of Mineral and Energy Affairs, said at the weekend.

The enriched uranium was used to produce the fuel rods for the reactor. Mr De Klerk said.

The Minister was speaking at a function at Pelindaba, near Pretoria, in honour of Dr A J A "Ampie" Roux, the retiring chairman of the Uranium Enrichment Corporation.

In praising Dr Roux's work for the corporation, and for the benefit of South Africa, Mr De Klerk said that in 1958, while still vice president of the Council for Scientific and Industrial Research, Dr Roux was given the "momentous task" of planning the country's nuclear research and development programme.

"This he tackled with characteristic zeal and within the space of a few months he travelled around the world and canvassed the opinions and views of no fewer than 232 authorities in Western world countries."

Dr Roux's report and recommendations still serve as the basis of SA's nuclear programme after 20 years.

Following Dr Roux's appointment as Director of Re-

search at the Atomic Energy Board, he began to assemble a team of scientists who, from the early 60s, started working on a uranium enrichment process which has placed South Africa in the forefront of enrichment technology.

"A scientific paper prepared by Dr Roux and Dr W L Grant, the other pioneer of nuclear technology in South Africa, was released at a scientific symposium in Paris in 1975, when certain information about the process had to be released.

"Their work got the international nuclear community buzzing. Some scientists would not believe it possible while others thought that the new technique was only partly feasible.

"The South African process has lived up to its claim and all scepticism was swept aside when the pilot plant at Valindaba, near Pretoria, started to produce enriched uranium," Mr De Klerk said.

Energy independence was of utmost importance for the security of any country and Dr Roux's contribution towards a nuclear programme formed an important part of South Africa's planning in this direction, the Minister said.

The Prime Minister, Mr P W Botha, unveiled a bust of Dr Roux at the closing of the ceremony.

Mr Botha said the bust would honour Dr Roux for his contribution in placing South Africa among the leaders in nuclear technology.



Winners of Mail's Father's Day contest, Raymond and Muriel T Robertsham, Johannesburg, with their prize of 12 lead-crystal cut glass decanter donated by Vitria Glassware. Muriel wrote the following g

*"The man in our lives never closes cupboard doors.
Never helps with household chores,
But we know when happy or sad,
The pillar of strength is always dad."*

Picture RAY

Housing inquiry official

PRETORIA. — A commission of inquiry has been appointed to look into township establishment and related matters, according to a proclamation in last week's Government Gazette.

The commission, which will consist of 17 members, will be chaired by Mr Z R le Roux, MP.

The body's task will be to inquire into, report on and make recommendations regarding:

- "Methods and proposals for the expeditious provisions of more residential erven within the means of persons requiring new housing by giving special attention to the sustained calls for the simplification and expediting of township establishment, for instance, the removal ... of impeding statutory provisions, measures, procedures and practices ..."
- "Methods to transfer land to competent institutions or any other

Call for clarity on wage freeze

Pretoria Bureau

THE Progressive Federal Party's finance spokesman, Mr Harry Schwarz, said at the weekend that businessmen would want to know whether the Government, in line with some countries, planned to impose a wage and price freeze to combat inflation.

Both New Zealand and France are to introduce such measures and both countries have inflation rates lower than that in South Africa, according to economists.

If the Government is contemplating such action, "the sooner they tell the country the better. As long as there is the possibility of a freeze, workers will press hard for maximum wage rises and traders will push their prices

to the limit in anticipation of a freeze," Mr Schwarz said.

He said if the current recession were allowed to deepen, unemployment would increase the risk of unrest and instability.

The head of the Economic Research Bureau of the University of Stellenbosch, Professor J L Sadie, said the alternative to a Government wage and price restraints policy was British Prime Minister, Mrs Margaret Thatcher's, policy of tight monetary discipline and attempting to cure inflation by including recessionary conditions.

Some economists say the Government's monetary policy has failed to slow down inflation mainly because of insufficient control over the money supply.

Man killed, one hurt in double tragedy

CAPE TOWN. — A man was killed and another injured on Saturday when they were hit by a car at the scene of an earlier accident — after they had taken the victims to hospital.

They were knocked down

after returning to the scene of the accident in Maitland, Cape Town, to assist police.

Mr Adolf Hatting, 32, of Ruiterwacht, was killed.

The condition of the other man, Mr P Groenewald, 25, of Bellville, was not known.

A police spokesman said a vehicle crashed in Maitland at about 6.40am. Mr Hatting and Mr Groenewald took the victims to hospital. When they returned, they were involved in a second accident.

— Sapa.

'Culture and Resistance' in Botswana

By LIZ MCGREGOR

SOME of South Africa's best-known artists, musicians, photographers and

Other artists presenting papers and taking part in panel discussions include writers Nadine Gordimer, Richard Rieuwerts, Wally Serote and James Mat-

several universities attend

The symposium, the Southern Africa, w

'Temple' an a

Mail Re

THE controversial temple planned for town Ridge will be a full building at Johannesburg, the architect Halford.

Local residents of the Parktown area recently lost a Johannesburg stop the erection of the temple on the site.

The temple will cost millions to build and take about a year to complete, said Mr Halford.

It would be more than the temple on the site.

"All the people on the site in an attempt which will result in grass."

Electricity may rise 20 pc

55 ~~100~~ Argus 30/6/82

Municipal Reporter

CAPE TOWN electricity consumers could be paying an extra 20 percent or more for their power by January next year because of the soaring cost of electricity which the City Council must buy from Escom.

Faced with a mid-year Escom increase, the council decided at its monthly meeting yesterday to increase its tariff to consumers by 12 percent as from August 1.

But the council has already been told that it will face another Escom increase of 18 percent in January and the council will have no option but to increase its own tariff to meet its Escom bill.

A councillor, Mr Frank van der Velde said Cape Town was now paying for the present political situation in South Africa. As a result of Government policy, Cabora Bassa was a failure and Escom was forced to spend millions on standby plant to coun-

teract incidents of sabotage.

"Now we are having to pay for apartheid," he added.

Mr van der Velde said Escom should be taken to task for its financial policies which were pushing the cost of power up even faster than the inflation rate.

"Ten years ago we were paying Escom R1,3 a kilowatt. Now we are paying R8,78."

In a report to the

council, the City Electrical Engineer, Mr D C Palser said the council was buying progressively more power from Escom and the cost of this power was now the most significant component in the cost of electricity to the council's consumers.

Escom had announced that it was doing its utmost to counteract the effect of increases through the construction of large and relatively high efficiency power sta-

tions and improvements to productivity.

"It has also been publicly emphasised by Escom that it is not expected that this interim mid-year adjustment will in any way reduce the increase in tariffs that can be expected for January 1983.

"A further substantial increase in January next year is accordingly most probable," Mr Palser said.

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S

energy output at a maximum.

These tests will be crucial in determining the feasibility of electricity generation by geothermal power. To achieve this, wells more than five kilometres deep would have to be drilled to tap heat at more than 200 degree C to bring up very hot, pressurised water that could drive turbines to generate electricity.

Such a system would use a virtually inexhaustible power source — the earth — and once perfected could be used almost anywhere.

But there are drawbacks. Present turbines are only 10 percent efficient at these temperatures, which would result in vast heat waste, while five-kilometre wells are both expensive and difficult to drill.

Current estimates put geothermal electricity prices at three times those of present systems. As Dr Batchelor put it: "Geothermal power is not an alternative to coal or nuclear power, it is an additional source."

In particular, islands and other remote sites where power transmission is expensive would make ideal places for geothermal stations. Their waste heat could also be used for house heating and market gardening. Indeed, his project has already been besieged by fruit growers anxious to use its spare 23 million litres of hot water.

If Ampie Roux's father had not insisted that he complete his matric and a BSc degree, South Africa's "Dr Atom" would probably have become a Free State farmer.

Dr Roux (67) leaves his office at the Uranium Enrichment Corporation today for the last time.

The retiring father of South Africa's nuclear energy industry will take with him more knowledge than is lawful to print in this country and which scientists the world over would give more than two teeth to have.

"The proudest moment in my career," he reminisced recently, "was when I was picked by the Atomic Energy Board, with the approval of the Government, to formulate a research and development programme in the field of nuclear energy."

As chairman of the Atomic Energy Board for 12 years and then as head of the Uranium Enrichment Corporation, he steered the country towards a uranium enrichment process which differed radically from those evolved in other countries.

Dr Roux sat at nuclear energy conference tables throughout the world. Adding knowledge to his genius, he pushed South Africa towards its first Koeberg. And, with the building of the power station just outside Cape Town, the suspicions of the world's nuclear powers were aroused.

A man who speaks softly and deliberately, Dr Roux's hackles rise when asked the inevitable questions about nuclear weapons.

"I refuse to discuss nuclear weapons," he stormed in an otherwise smooth interview. "South Africa has

'Dr Atom' steps down today

The tremendous contribution made by Dr Ampie Roux to South Africa's nuclear development is outlined by Sheryl Raine of our Pretoria Bureau.



Ampie Roux . . . pioneer role.

repeatedly stated that our interest in nuclear power is for peaceful purposes only. Our whole process is geared towards the production of nuclear energy."

Why had South Africa refused to sign the Nuclear Non-Proliferation Treaty which was concluded in 1968 and which about 120 countries had signed?

"If you sign the treaty you have to make available to the rest of the world everything that you have developed in the nuclear field," he explained.

"That means we

would have to expose the knowledge that we have on our enrichment process. We weren't quite prepared to do that."

Yet Dr Roux believes South Africa's most valuable contribution to the world of nuclear science is the evolution of a unique uranium enrichment process.

Asked whether South Africa was not prepared to share its scientific know-how, he explained that the country was indeed prepared to share its knowledge with other countries, but on terms which would be acceptable to South Africa.

"We haven't been able to achieve these terms," he said. "So far we have not found nuclear partners who would take South Africa's interests into account."

Until two years ago South Africa enjoyed "very intimate collaboration" with the International Atomic Energy Agency, he said. The Vienna-based organisation co-ordinates nuclear proliferation and one of its functions is to detect diversion of nuclear material from peaceful to military uses.

"I'm afraid the close contact we had with the agency no longer exists," he said, putting the rift down to unspecified "political reasons".

At the moment South Africa had no specific collaborative programme on the nuclear scene, but was constantly in touch with other countries.

In the field of radioactive fallout, for instance, South Africa now compares notes with Britain and France.

In the past, said Dr Roux, we enjoyed a couple of years of intimate collaboration with a German concern on uranium enrichment, but this had now ended.

Also at an end is Dr Roux's direct participation in the country's nuclear industry. From now on he will use his time to write a book on the historical aspects of nuclear energy in South Africa.

Electricity to go up 12 percent

CAPE TIMES
30/6/82

55
7/11/7

THE Cape Town City Council yesterday announced a 12 percent increase in the cost of electricity and warned of a further substantial rise at the end of the year.

The price increase — the result of increased Escom charges and to a lesser extent, the cost of coal — takes effect on August 1.

The last price rise announced by the council was 13,5 percent, introduced late last year.

The item on the council's monthly agenda would have been passed without debate but for Mr Frank van der Velde, who demanded that Escom be made to answer for the reasons behind its "excessive" price increase.

He said one of the "political factors" was that Escom was having to spend millions of rands

By JANE ARBOUS
Municipal Reporter

on security measures to protect its installations — "the price we pay for apartheid".

Another was the use of old and uneconomic power stations because of difficulties experienced with the power supply from Cabora Bassa in Mozambique.

The City Council is purchasing more and more power from Escom and the cost of this is now the most significant component in the cost of electricity to the council's consumers.

Escom used to implement tariff increases in January each year, but this year it introduced a mid-year increase as well.

Escom has publicly emphasized that this interim

adjustment would not in any way reduce the increase in tariffs expected in January.

In terms of a special off-peak tariff agreement, the council is entitled to Escom power in off-peak periods at a relatively low rate for night pumping at the Steenbras pump-storage scheme.

However, Escom announced that it was having a shortage of generating capacity and was obliged to temporarily withdraw this facility.

Higher coal costs

This necessitated the shortfall being made up by the council's Athlone power station at increased cost. The cost of coal was also higher than originally estimated.

The financial effect of these two factors was an increase of R2,3-million above the R16,9-million estimated by the council for 1982.

Taking other factors such as wages and income into account, the overall financial result was a net expenditure increase of R4,9-million.

To make up this shortfall, the council had to raise its tariffs to the consumer.

● More City Council reports, page 3

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Business and Shipping

Oil drilling off SA coast no longer an urgent priority

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2/7/82

SOUTH AFRICA has joined other Western countries in reducing its urgent priority in drilling for oil along the seaboard.

There is now only one rig prospecting, and another may become available in the middle of next year, but there appears to be no great enthusiasm to bring fuel out of the seabed.

While there were said to be important pockets of gas off the southern seaboard which could presage oil, the Government has released one chartered rig without replacing it, and less is being said about oil research.

The universal oil glut has had a profound impact on the efforts by Western nations to exploit resources off their coastlines, and so far this year nine important orders for new rigs have been cancelled with shipyards.

One was to have been erected in Durban. A further nine rigs on contract in American and Singapore yards are also in the balance.

New rigs flowing from world shipyards have come on the charter market at rates far below those applying a year ago, and about half of the 105 rigs in the course of construction in the United States and the

SHIPPING By George Young

Far East are open to charter.

American yards received numerous orders from concerns intent on recovering oil in the Gulf of Mexico, but the business fell flat thanks to the surplus of oil and the fact that high building costs may not result in reasonable returns from Mexican Gulf operations.

One American concern, Rowan Drilling, with nine jack-up rigs in the course of construction in Texas, has offered them all on charter and if some clients are not forthcoming, the builders will be asked to slow construction in the hope of a better return later.

There is no doubt that if South Africa wanted to exploit gas finds by bringing in additional drilling rigs, they would find charter rates very favourable (they have hardly ever been lower) and the availability of plant plentiful.

But with oil prices tumbling, and various storage farms having stocks "coming out of their ears", the high cost of drilling is not as regarded economic in these

circumstances.

Needless to say, shipbuilders who saw the oil industry as a fruitful source of business at a time when building of ships was no longer propitious, have suffered a shock and the downturn in demand for oil has wide implications.

Consistently with the reduced cost of bunkers universally, thanks to the surplus, the price at Durban for ships is now \$162 a ton, the lowest it has been in years, and the more costly diesel oil has been favoured by the Government's reducing its tax to about \$40 a ton, so that ships now pay \$340 a ton.

While this is still expensive, it represents one of the lowest prices paid anywhere, cheaper even than in the Middle East near the production centres.

Tanker owners also are doing their best to shed their loss-making ships, and the Dutch tanker Schelderix, which has visited Algoa Bay for repairs in the past, has been sold to Singapore owners for the extraordinarily low price of R6 million.

The four-year-old steam tanker would cost R85 million to replace at present building costs, and the determination of two Dutch

companies to rid themselves of the ship accounts for their acceptance of the very low price.

If Soeker in South Africa is determined to resume prospecting for crude in the sea off the continent, it may be able shortly to obtain a brand new rig for local ownership, at a fraction of the price applying five years ago when charters were so costly.

The downturn in oil research has affected also the fortunes of the many companies operating towing and supply craft.

One new rig tender, to be operated by Unicorn in association with the German OSA tugs at present attending the rig off the coast, will be ready in a few months.

The Germans are reported to be aiding the designers of the 5 965kW (8 000hp) rig and supply vessel nearing completion in Durban yards.

It was at one time thought that the new tender would be an overture to a flotilla of the type being built in the Republic for local control, but since the research operations everywhere have run into a stormy patch economically, it may be cheaper to buy rather than build, and it could also be cheaper not to have so many tenders unless there is a chance for employing them.

Massive oil find in Namibia may rival Arab wells

55 (2) S. Express 4/7/82

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NEW YORK — Significant traces of crude oil have been found in northern Namibia and, according to two American experts, the find is commercially viable.

Mr James A Momper, internationally acknowledged oil expert, member of the American Association for the Advancement of Science and for many years head of the Amoco oil company's geological research division, said he was convinced that an area between the Etosha Game Reserve and the Angolan border would yield commercial quantities of oil and possibly gas.

In an article published in a recent edition of the authoritative 'American Oil and Gas Journal', Mr Momper said he believed the Etosha basin was suitable (in places) for substantial oil and gas resource development.

In an exclusive interview with the Sunday Express from his Tulsa, Oklahoma office, Mr Momper said "significant" traces of crude oil had been found floating on top of water in a well sunk earlier.

"It was initially thought that the oil was diesel oil that had been used to free a sticky drill bit.

"When it was subjected to precise laboratory analysis, it was found that the oil conformed to the properties of crude oil."

The well, known as 5-1a, was drilled at a site roughly halfway between the famous Etosha reserve and the Angolan border with Namibia.

Dr Emanuel Rosenblat, chairman of the company that drilled the well and holds the lease for a large part of the area, Etosha Oil Company Ltd, said he was "firmly convinced" that the Etosha basin offered "the next greatest potential after the Saudi Arabian oil field".

"I knew there was a lot of oil there long before Mr Momper published his findings. Although it is nice to have them confirmed by a man of his scientific stature, it is neither new nor does it come as a surprise to me."

The only reason his company had not further explored the "tremendous po-

BUT US EXPERT SAYS PEACE MUST COME BEFORE HE EXPLOITS THE ETOSHA BASIN

By GHERHARD PIETERSE

tential" of the area, he said, was because of guerrilla activities.

"When one of our company secretaries, Shirley Louw, and her daughter were killed by Swapo terrorists, we had to reconsider our involvement in the area.

"When I was almost killed in another attack a short while later, this to me was the writing on the wall and I decided to terminate, at least temporarily, the company's activities in the area."

He said traces of oil were found at around 3 000m which was also the point at which the drill broke.

While preparations were in progress to replace the broken rig with one capable of drilling a deeper well he said fighting between South African forces and Swapo guerrillas broke out in the area.

"At that stage it became clear to me that I would be endangering the lives of our staff by staying in the area and we decided to pull out."

Dr Rosenblat said he was "very keen" to return to the area as soon as possible to open up the field for commercial production but would not do so before the fighting stopped.

According to the article in the 'American Oil and Gas Journal' plans were well advanced for the Etosha Oil Company to return to Namibia within the next 18 months.

Dr Rosenblat declined to

ogy available to make the field produce "But before that can happen, there has to be peace."

According to the article, substantial quantities of oil had been found in parts of South America and Algeria in geological formations almost identical to those in Namibia.

Dr Rosenblat said he was not concerned over "what kind" of settlement was reached in Namibia.

"I really don't care whether the United Nations are involved or not in any settlement that is eventually reached as long as it creates a peaceful climate for us to operate in."

comment on this statement.

"Tell them to stop fighting there. We know there is oil. We have the lease over the area that we believe holds the greatest promise and we have the men, machines, know-how and high technol-

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WARNING

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UNIVERSITY OF CAPE TOWN
EXAMINATION ANSWER BOOK

EVERY CANDIDATE MUST enter in column (1) the number of each question answered (in the order in which it has been answered); leave columns (2) and (3) blank.

Initials	Examiners	Internal			External		
		(1)	(2)	(3)	(1)	(2)	(3)
		3(a)	8				
		1(b)	4 1/2				
		2(b)	8				

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Instead, it says that Captain Georgoulis has himself laid charges against Mr Mitakis and Mr Afentakis, demanding unpaid salaries from them amounting to 5 295 000 drachma (nearly R45 000).

The newspaper carried a copy of a handwritten statement by Captain Georgoulis, declaring that the interview and his relations were genuine.

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Mr Georgoulis added: "Every day I receive threats against myself and my family that I will be smashed if I open my mouth."

The interview mentions nothing of the captain's alleged involvement in

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vestigation, demanding the extradition to Britain of several Greeks alleged to be involved in the case.

Mr Georgoulis claimed that the South Africans paid \$52m for the oil, the recipients being Nikos Mitakis, 60, and Lefteris Afentakis, 45, cited as part owners and agents of the 214 000-ton Salem.

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tons of oil aboard were sold to South Africa.

The oil was originally scheduled to be delivered to Shell International trading in Italy, which has filed a claim for \$56m, the largest cargo insurance claim ever received at Lloyd's.

Because of the magnitude of the alleged fraud, Scotland Yard has been deeply involved in the investigation.

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Own Correspondent
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Koeberg: 55 a power *Stan* struggle... *8/7/82*

By Jaap Boekkool
South Africa's first nuclear power station, Koeberg, will start churning out electricity next year.

It is a triumph over a mountain of obstacles.

For eight years the entire pioneer venture, essential to train future generations of nuclear power scientists, was in a political dither.

At first it was doubtful whether any country had enough clout to install the R2 000 million turnkey project here, when faced with maximum international pressure.

Then, when building on Koeberg began allegations started flying that the "Pretoria regime" would use the power station to produce plutonium (a natural byproduct of nuclear power) and turn this into atom bombs.

Next obstacle was the political swing in France, with a socialist President Mitterrand assuming power. But it did not stop the Koeberg project.

The ultimate threat which hung over the concrete giant at Melkbosstrand, 30 km from Cape Town, was that it might never receive its vital fuel, enriched uranium, which South Africa had contracted

to buy from the United States in 1979.

People started talking about Koeberg as the future "great white elephant," a colossus standing idle until it would receive home-manufactured enriched uranium from Valindaba in 1985 at the earliest.

But a double coup saved Koeberg. First Escom managed to get its hands on 75 tons of low-enriched uranium on the international black market. The under-the-counter deal through American brokers was enough to start up Koeberg and keep it going for 18 months.

Secondly the American embargo on enriched uranium exports to South Africa began floundering. Washington started making noises suggesting a change in the embargo, and South Africa reciprocated by promising to consider signing the Nuclear Non-Proliferation Treaty of 1968, which bans each country from making nuclear weaponry.

So far it seems that Koeberg, which from 1984 will contribute some 10 percent to the national power grid, is safe.

Safe from boycotts, embargoes, the UN fuel hold-ups, delays and environmentalists. It will be the nucleus of a future nuclear power industry.

Sasol III fuel flows

(55) ROOM
10/7/82

SASOL III at Secunda started producing marketable fuels on a continuous basis this week when the last phase, the refinery, was brought on line. The first crude oil was produced on May 10, according to Sasol.

The first petrol, diesel and kerosene (jet fuel and paraffin) started flowing into the storage tanks only days before the date determined in March 1979. The plant, planned at a cost of R3 276-million, was also completed inside the budget.

Bringing Sasol III on line coincides with the expansion programme announced for Sasol's blue pump, which by the end of the year will be available in about 40 Eastern Transvaal and Free State towns for the first time.

About 200 blue pumps will be installed within 80 km of Secunda, Warden and Middelburg. — Sapa.

Schwarz calls for fight on oil fraud

CAPE TIMES 10/7/82

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Mr Harry Schwarz

Own Correspondent

JOHANNESBURG. — The Opposition spokesman on finance, Mr Harry Schwarz, last night called for an official explanation of who footed the bill for a R30-million compensation pay-out following the Salem oil fraud in 1979.

According to a judgment in the British Court of Appeal, Sasol and the Strategic Fuel Fund (SFF) paid R50-million for the Salem's 180 000-ton cargo to "the crooks" — and then another R30-million in compensation to Shell when the fraud was discovered.

Shell was the legal owner of the oil, which was fraudulently discharged in Durban in December, 1979.

The SFF is a government-owned company involved in oil procurement. In his judgment in a matter between Lloyds of London and Shell International, Lord Justice Denning described the SFF as "highly glib".

Although the R30-million was paid to Shell in April, 1980, South African newspapers were prohibited in terms of the Petroleum Products Act from publishing the amount which had been paid, even though the figure was widely published and broadcast overseas.

Mr Schwarz said last night that it was not clear who had paid the R30-million. He called on "someone" to explain the situation.

Investigation

If the money came from public funds and was "wasteful expenditure", it could be investigated in Parliament by the Sessional Committee on Public Accounts.

Up to now there had been no mention of this amount in reports to Parliament by the Auditor-General, he said.

He expected the Opposition to raise the matter when Parliament reconvened in January.

It was possible, however, that the money was Sasol's and if so it was a matter for the shareholders of the company, Mr Schwarz said.

Full story

While the Salem saga was at its height in 1980, many of the facts because of the Petroleum Products Act — even though the full story was being published overseas.

The Minister of Industries and Consumer Affairs at the time, Dr Schalk van der Merwe, denied government involvement in the fraud.

He said he was aware of certain facts that might concern the matter, but could say no more.

Explain oil fraud, PFP tells Govt

By CHRIS FREIMOND, Political Reporter

THE Opposition finance spokesman, Mr Harry Schwarz, last night called for an official explanation on who paid R30-million compensation after the 1979 Salem oil fraud.

According to a British Court of Appeal judgment, Sasol and the Strategic Fuel Fund paid R50-million for the oil to "the crooks" and another R30-million compensation to Shell when the fraud was discovered.

Shell was the legal owner of the 180 000-ton oil cargo which was fraudulently offloaded in Durban in December, 1979.

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It was possible, however, that the money was Sasol's and if so it was a matter for the shareholders of the company, Mr Schwarz said.

A spokesman for the Minister of Mineral and Energy Affairs, Mr F W de Klerk, said yesterday the Minister would not comment on the matter.

A spokesman for the office of the Director-General of Mineral and Energy Affairs drew the Rand Daily Mail's attention to an official statement issued in 1980 in which it was stated that the Government would make no further comment on the Salem affair. He said that statement was still in force.

A spokesman for Sasol refused to comment on the matter. He said the company was prohibited from commenting in terms of the law.

While the Salem saga was at its height in 1980, South Africans were prevented from knowing many of the facts because of the Petroleum Products Act — even though the full story was being published overseas.

Oil which was bought fraudulently in the Middle East was sold to South Africa. The Salem was then scuttled off the West African coast.

The Minister of Industries and Consumer Affairs at the time, Dr Schalk van der Merwe, denied Government involvement in the fraud.

He said he was aware of certain facts that might have concerned the matter, but could say no more.

The Petroleum Products Act prohibits the publication of information relating to the source, manufacture, transportation, destination, storage, quantity or stock level of any petroleum product acquired or manufactured for or in South Africa.

It also prohibits publication of any statement, comment or rumour calculated directly or indirectly to convey such information or anything purporting to be such information.

If things 'go wrong' at Koeberg

Coping with N-accident



PAUL SEMARK, Koeberg power station manager (check jacket), in the emergency control centre.

IT is 6.35 am and somewhere in the dense fog around the Koeberg nuclear power station a siren wails.

Inside the plant a major emergency plan swings into motion, and for the next few hours technicians, the South African Air Force, civil defence and about 54

outside organisations cope with "a nuclear accident."

Such an emergency in the early hours of Wednesday morning this week was simulated — a

requirement of the Atomic Energy Corporation's licensing process — but the subsequent action at Koeberg was real and the people in charge were deadly serious.

The siren can be heard for about 6 km and signals — especially to the people who live in the Duynfontein village — that something has gone wrong on the site.

Siren

Within minutes a team — including the power station manager, health physicists, an emergency controller, radio and telephone operators, technicians and a public relations official — reports to the permanent emergency control centre.

As Koeberg's plan, demonstrated openly for the first time, gets off the ground a pre-recorded message is automatically relayed from the plant to the SABC's local editorial offices.

The tape announces "an incident at Koeberg" and asks listeners to stay tuned for further information but says there is no reason for panic.

Media

By special arrangement with the SABC, normal programmes will be interrupted to give air space to any warning from Koeberg.

Not long after the taped warning goes out, a SABC news reporter telephones the media information centre — specially set up for the exercise.

Here, two more public relations officials liaise with their colleagues in the emergency control centre several metres away, to relay information to the outside and quell the fears of anxious callers.

"No sir, it is merely an exercise... yes, thank you, goodbye."

Roadblocks

"Security? OK. Can you please contact the roadblocks and let any Press members through."

"Is that Sapa? Could I speak to one of your reporters?"

The flurry of activity is so convincing a tinge of anxiety creeps in.



By SYLVIA VOLLENHOVEN

Three roadblocks have been set up to prevent passing vehicles carrying possible nuclear contamination to other areas.

A technician comes up from the control room to help interpret information coming from there.

Leaked

Together he and the PR's put the jargon into everyday terms so that the public can understand the loss of one bus bar and a safety injection after a primary to secondary leak.

An electrical cable has been lost and some of the auxiliary power is no longer available.

Water has leaked out of the primary system, where the reactor core lives. To make matters worse, a nuclear fuel leak is making this water highly radioactive and steam from it is escaping through an open valve into the atmosphere.

Collapses

The experts at Koeberg say to achieve this dangerous situation some highly unlikely assumptions had to be made — such as a valve not being closed for an hour because a worker had accidentally dropped a spanner through it.

A man sent to repair the damage collapses from heat exhaustion — the effect of the steam and heavy protective clothing.

The real wail of an ambulance siren signals that a fictitious Mr Jim Baines has been taken to the Tygerberg Hospital where staff have been on standby and there are special decontamination facilities.

A second wail announces a fire engine has been sent to assist Koeberg's own fire-fighting facilities.

"Mr Baines" was exposed to 5 000 millirems of radiation — 150 000 millirems causes radiation sickness — and is soon discharged from hospital after treatment.

Meanwhile, Air Force helicopters and five specially equipped mobile laboratories, with teams from the health physics department, scour the area around Koeberg to monitor the steam plume.

Helicopters

At the plant the emergency control centre looks like a war office. The walls are lined with maps, and plotters chart any progress with colourful stickers.

The plume, which has moved towards Atlantis, is rapidly being dispersed, they find.

Every step taken in controlling the emergency has been documented on large boards, and an array of telephones and a radio room maintain constant communication.

School

The worker calmly tending the green lawn outside is an odd contrast.

Theoretically, a Divisional Council civil defence team goes from house to house in Duynfontein, the Koeberg village, to ask people to remain inside with doors and windows shut and to stay tuned to their radios.

The headmaster of the local primary school is told to keep his children inside.

Should evacuation become necessary, City Tramways will make buses available, even during peak hours. On Wednesday morning they were on standby.

In addition, the plant can provide some transport.

In a real emergency, Koeberg will set up three information centres: One at the on-site visitors' centre, another at the Duynfontein clubhouse and a third, currently being fitted out, in the Cape Town Centre.

There will be two emergency control centres, the one used in the simulation and another on the site.

The destination of the evacuated people will depend on wind direction, weather and other conditions.

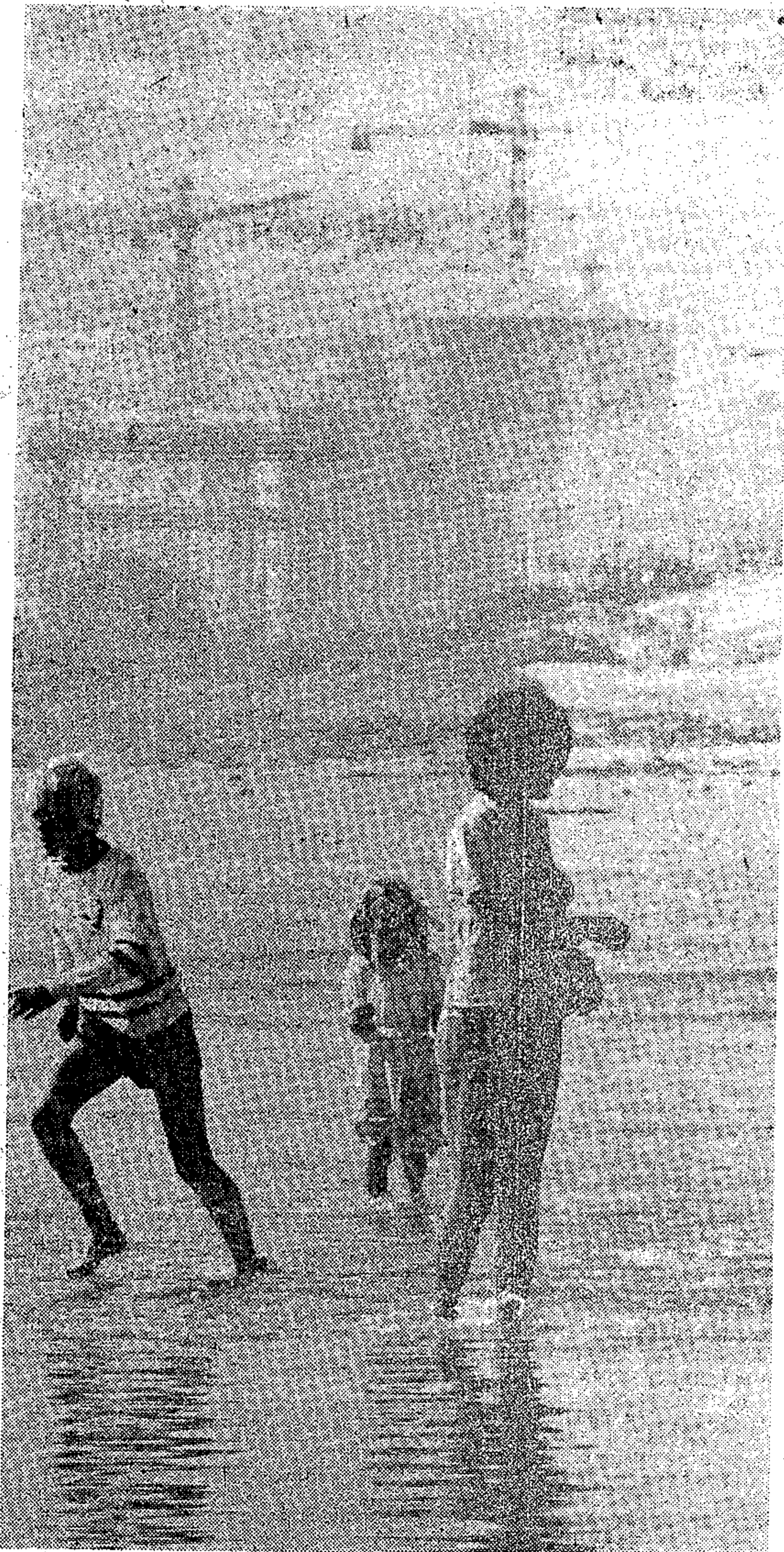
But on Wednesday morning evacuation was not necessary and by 10.37 the emergency was over, after the nuclear plant had been theoretically shut down.

The people of Cape Town could collectively breathe a simulated sigh of relief.

Evacuation

The Koeberg authorities are legally obliged to be capable of evacuating people within a 5 km radius and to have plans for moving those within a 16 km radius — which includes parts of Atlantis and Table View.

They claim a mass evacuation of Cape Town will never be necessary.



THE Koeberg power station is nearing completion but in an emergency how safe are the people of Cape Town?

Call for truth on oil fraud

(55) S. Times

11/7/82

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By KEN SLADE

THE South African public had a right to know who paid Shell International R30-million in compensation after the gigantic Salem oil fraud.

This was asserted yesterday by the Opposition spokesman on energy, Mr John Malcomess, who was joined by the spokesman on finance, Mr Harry Schwarz, in calling for a Government explanation.

"It's public knowledge overseas as to who in South Africa paid the compensation and it's time that the taxpayers of this country were put fully in the picture by the Minister of Energy," Mr Malcomess said.

He accused "someone" in South Africa of receiving stolen goods by accepting the

oil, the legal property of Shell International.

The cargo, approximately 180 000 tons, was offloaded from the Salem in Durban in December 1979.

Gullible

The full story of the fraud emerged this week in the British Court of Appeals, where a claim of R370-million against Lloyds of London by Shell International was heard by Lord Justice Denning.

He found that Sasol and the Strategic Fuel Fund, a Government-owned company involved in oil procurement,

paid R50-million to "the crooks" for the Salem's 180 000-ton oil cargo.

Later, when the fraud was discovered, another R30-million was paid to Shell by someone in South Africa in compensation for its loss of the oil.

Lord Justice Denning described the SFF as "highly gullible" and said "the crooks", who were still on the run, would probably never be caught.

Mr Malcomess said it was about time that South Africans were told exactly who paid the R30-million in compensation to Shell.

"Everyone overseas knows about it so I don't see why the South African taxpayer, who could be involved, should not

be told what is going on," he said.

Mr Schwarz said it was unclear to him and to most South Africans who paid the bill.

He said that if the R30-million came from public funds and was "wasteful expenditure", then an investigation would have to be carried out.

Inquiry

"At any rate, I intend asking the Auditor-General to inquire into the matter and to submit a report to the Select Committee on Public Accounts."

Mr Schwarz, a member of that committee, said the matter could then be raised in Parliament.

It was also possible that the compensation had been paid by Sasol.

"Sasol is a public company, so it would then become a matter for shareholders of that company."

A spokesman for the office of the Minister of Mineral and Energy Affairs, Mr F W de Klerk, declined to comment on the payout.

The Director of Energy, Mr Lourens van den Berg, also had nothing to say on the issue and neither did Sasol.

When news of the fraud was first made known during 1979 the then Minister of Industries and Consumer Affairs, Dr Schalk van der Merwe, denied any Government involvement in the fraud.

Own Correspondent

The Minister of Mineral and Energy Affairs, Mr F W de Klerk, has ordered a clampdown on further publication of the Salem affair.

Legal steps are being considered as a result of the recent reporting," he said in a statement in Pretoria yesterday.

"It is correct insofar that both Shell and SFP (the South African official crude oil purchasing agency) were defrauded.

The transaction was concluded during the serious 1979 oil crisis when the acquisition of crude oil was problematic worldwide and especially for South Africa.

"Sasol had no financial interest at all in the transaction."

Mr de Klerk said: "In the interest of South Africa I cannot

Minister orders clampdown on details of Salem affair

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12/7/82

allow any further publication on this matter as the strategic importance of crude oil deliveries to South Africa could still be seriously and detrimentally affected thereby."

It was with alarm that he had noted Press statements and comment on the Salem incident at the weekend.

He felt compelled to bring certain facts to public attention.

"The supply of oil to South Africa remains a sensitive issue and

because of conclusive strategic reasons the State cannot allow existing statutory provisions to be ignored."

The Salem affair hit the headlines when an oil tanker, Salem, was scuttled amid reports that the bulk of its cargo of crude oil had been sold to South African concerns.

The matter featured in several investigations and surfaced again last week in the British High Court.

Mr de Klerk said: "The implication that

the Government intentionally wanted to conceal fraud is malicious and contradictory to the true situation.

"After the facts of the transaction had become known the responsible representatives of all the opposition parties in Parliament were jointly informed thereof by my predecessor in February 1980."

They had also been told of the circumstances which made it undesirable for South Africa to disclose any

information regarding oil transactions even though it might be reported in the Press abroad.

Mr de Klerk said these discussions were being held while negotiations between Shell and SFP were taking place on the responsibilities of the two parties affected by the alleged fraud.

At the same time a representative of the conference of Newspaper Editors had been informed of the reasons for the Government's insistence that

Despite publication overseas it would not be in the interests of South Africa to allow reporting on the matter in South Africa.

During April 1980 it had been agreed by SFP and Shell that SFP would assume responsibility for about half the total loss suffered (the net additional cost to SFP being about 25-million dollars), that SFP should retain all delivered oil and that Shell would reserve the right to try to claim the remaining losses from the insurers.

Subsequently permission had been given to Shell to issue a statement overseas on the agreement, which could also be published in the South African Press.

Govt denies oil fraud concealment

By GERALD REILLY
Pretoria Bureau

THE implication that the South African Government wanted to conceal fraud in the Salem incident was "malicious and contradictory to the true situation", the Minister of Mineral and Energy Affairs, Mr Piet du Plessis, said in a statement in Pretoria last night.

"It is with alarm that I have noted Press statements and comment on the Salem incident during the weekend, and I am compelled to bring the following facts to the public's attention."

The Minister said the supply of oil to South Africa remained a sensitive issue and for strategic reasons the State could not allow existing statutory provisions to be ignored.

Legal steps were being considered as a result of recent reporting.

"It is correct in so far that both Shell and SFF (the Strategic Fuel Fund) were defrauded.

"The transaction was concluded during the serious 1979 oil crisis when the acquisition of crude oil was problematical world-wide, and especially for South Africa."

The Minister denied that Sasol had any financial interest in the transaction.

"The implication that the Government intentionally wanted to conceal fraud is malicious and contradictory to the true situation."

After the transaction had become known the responsible representatives of all opposition parties in Parliament were informed by the Minister in February 1980.

They were also informed of the circumstances which make it "most undesirable" for South Africa to disclose any information on any oil transaction, though it could be reported in the overseas Press.

All opposition party spokesmen present at the discussion displayed "particular understanding" of the situation, and associated themselves with the proposed handling of the matter.

These discussions were held while negotiations between Shell and SFF were

taking place about the respective responsibilities of the two parties injured by the fraud.

"At the same time a representative of the Conference of Newspaper Editors was informed of the reason for the Government's insistence that, notwithstanding publication overseas, it would not be in the interests of the country to allow reporting on the matter in South Africa."

The Press complied with the Government's request.

During April 1980 it was agreed by SFF and Shell that SFF would assume responsibility for about 50% of the total loss suffered (the net additional cost to SFF was about R25-million), that SFF should retain all delivered oil, and that Shell would reserve the right to endeavour to claim remaining losses from the insurers.

"My predecessor permitted the release of a statement by Shell overseas regarding this agreement and that it could also be published in the Press."

The Shell statement was published in SA during April 1980 and reads:

"Shell International Petroleum Company and SFF have settled between them their dispute over that part of the cargo of crude oil discharged from the Salem at Durban in late December.

"Shell have, after obtaining advice on their right of recovery under South African law, accepted a substantial sum in full and final settlement of all claims against SFF, and SFF have accepted the release by Shell in respect of all claims to the oil discharged from the Salem in Durban.

"Shell intends to pursue other claims in respect of the loss suffered. The inquiries into irregularities by third parties are being pursued by police authorities."

The Minister said the need for a further statement was forced by recent Press reports.

"In the interest of South Africa I cannot allow any further publication on this matter as the strategic importance of crude oil delivery to South Africa could still be seriously and detrimentally affected," the Minister said.

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13/7/82

Minister: No Salem cover-up

CAR TIMES 13/7/82 (55)

cover-up

Own Correspondent

JOHANNESBURG. — The implication that the South African Government wanted intentionally to conceal fraud in the Salem incident was "malicious and contradictory to the true situation", the Minister of Mineral and Energy Affairs, Mr Piet du Plessis, said in a statement in Pretoria last night.

"It is with alarm that I have noted press statements and comment on the Salem incident during the past weekend, and I am compelled to bring the following facts to the public's attention."

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Legal steps were being considered as a result of recent reporting.

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Opposition told

"The transaction was concluded during the serious 1979 oil crisis when the acquisition of crude oil was problematical world-wide, and especially for South Africa."

The minister denied that Sasol had any financial interest in the transaction.

"The implication that the government intentionally wanted to conceal



Mr Piet du Plessis

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All Opposition party spokesmen present at the discussion had displayed "particular understanding" of the situation, and had associated themselves with the proposed handling of the matter.

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To page 2

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13/7/82 (55) From page 1

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'Other claims'

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The minister said the need for a further statement was forced by recent press reporting.

"In the interest of South Africa I cannot allow any further publication on this matter, as the strategic importance of crude oil delivery to South Africa could still be seriously and detrimentally affected."

By LOUIS BECKERLING
Business Editor

GOOD news for local industrialists is that subsidies on electricity tariffs will include electricity supplied by the Port Elizabeth Municipality — and Despatch businessmen will also qualify for the effective 25 to 30% discount.

This emerged during a speech in the City Hall today by Mr D de Beer, chairman of the Decentralisation Board.

In his speech, Mr De Beer also revealed that preliminary estimates suggested a figure of R9 million would be spent annually on the subsidy, which is intended to bring tariffs into line with those paid by consumers in the Eastern Transvaal.

The precise form in which the subsidy will be paid is still to be negotiated by the board and the municipality. "But we would prefer to see a discount being allowed on the monthly account, thus showing quite

55 12/82
Power & Post tariff aid also on PEM supply

clearly what the extent of the subsidy is," said Mr De Beer.

Before this definitive statement was made, many businessmen believed the electricity subsidy applied only to power supplied by Escom.

Mr De Beer announced no additional concessions to

those already agreed upon for the Port Elizabeth-Uitenhage metropolitan area.

But in reply to a number of questioners who were critical of the concessions, he said the board had a brief to monitor the progress of the decentralisation proposals. If it became necessary to amend and improve concessions applicable to the area, this would be done.

The three concessions applicable in the area are:

- A subsidy on electricity tariffs, bringing payments into line with the Eastern Transvaal.

- A 20% rebate on finished products "exported" from the area. (In certain cases a comparable subsidy on imported raw materials may be considered).

- The 125% after-tax cash grant on approved training schemes, which is granted in addition to the existing 100% rebate for which such a scheme qualifies.

EVERY CANDIDATE MUST enter in column (1) the number of each question answered (in the order in which it has been answered); leave columns (2) and (3) blank.

	Internal	External
1)	(2)	(3)
	40	
	50	
Examiners' Initials		

Degree/Diploma/Certificate for which you are registered (e.g. B.A., B.Sc.)

Subject..... Economics II

(to be copied from the heading on the Examination Paper)

Paper No..... 1

(to be copied from the heading on the Examination Paper)

NOTE CAREFULLY

1. Enter at the top of each page and in column (1) of the block on this cover the number of the question you are answering.
2. Blue or black ink must be used for written answers. The use of a ball point pen is acceptable. Red or green ink may be used only for underlining, emphasis or for diagrams, for which pencil may also be used.
3. Names must be printed on each separate sheet (e.g. graph paper) where sheets additional to examination book (s) are used.

WARNING

1. No books, notes, pieces of paper or other material may be brought into the examination room unless candidates are so instructed.
2. Candidates are not to communicate with other candidates or with any person except the invigilator.
3. No part of an answer book is to be torn out.
4. All answer books must be handed to the commissioner or to an invigilator before leaving the examination.

Any dishonesty will render the candidate liable to disqualification and to possible exclusion from the University

Power bills could give PE R4m boost

SS
E. Post 20/7/82

By LOUIS BECKERLING
Business Editor

AROUND R4 million could be injected into Port Elizabeth's commercial and industrial sector in September by way of backdated discounts on electricity bills.

Following discussions between Mr D de Beer, chairman of the Decentralisation Board, and Town Clerk Mr Philip Botha, it has emerged that the first pay-out of the electricity subsidies, backdated to April this year, will be in September.

During his address to

businessmen last week Mr De Beer revealed also that calculated over a full year the subsidy could amount to some R9 million — hence the elementary calculation for the five-month delay in passing the first payment.

Depending upon the pattern of consumption it is not inconceivable, in fact, that some lucky businessmen may be passed a credit note in their September accounts.

Town Clerk Mr Botha told me yesterday that the council had agreed to a request from the board that the subsidy be passed on by

way of a discount on the monthly electricity bill.

The subsidy has been calculated to reduce tariffs to the rate at which users in the Eastern Transvaal pay for their electricity.

In general terms this will amount to a discount of some 25% to 30% on individual bills.

"We will have to rewrite our computer programme to enable us to change the accounts and this may take a few months," said Mr Botha.

"However, in the interim we will attach notes to the accounts in which the gross account and the precise extent of the discount in rands and cents is clearly demonstrated."

Mr Botha said although the subsidy, announced in terms of the Government's decentralisation effort, was backdated to April, there were certain administrative problems to be ironed out.

He believed, however, that the money would be

available by September.

The electricity subsidy is one of three concessions announced for the Port Elizabeth/Uitenhage metropolitan area.

The other two relate to rebates on approved training schemes and a subsidy on rail tariffs paid on incoming goods.

Significantly, however, when pressed by speakers at last week's meeting, Mr De Beer conceded that additional concessions could be introduced.

Among the petitions made by businessmen were:

- Subsidies on outgoing traffic.

- A preferential treatment of tenders for State and semi-state projects.

Such matters could be brought to the attention of the regional advisory committee, Mr De Beer said, and their introduction would be considered on their merits while the progress of the decentralisation campaign was being monitored.

Authors claim nuclear 'pariah axis' SA, Israel 'working on a neutron bomb'

The Star Bureau

LONDON — Israel is said to have co-operated with South Africa and Taiwan to build up its nuclear capability and in 1979 Israel and South Africa are said to have tested one of the most advanced tactical nuclear systems in the world.

These essentials appear in the book "Two minutes over Baghdad," which purports to be the true story of the daring destruction by Israeli bombers of the Iraqi nuclear plant in 1980.

After detailing an Israeli research breakthrough in 1972 in the enrichment process by using laser beams the authors say: "This was not the only direction in which Israel was working."

"It seems that since the beginning of the 1970s, Israel's goals have been to widen her nuclear arsenal, in quality as well as quantity, and in the field of launching systems."

"For this purpose she co-operates with both South Africa and Taiwan."

The book goes on: "In September 1979 American and Soviet spy satellites detected a nuclear explosion over the Indian Ocean at a height of 8 000 m."

"The CIA and other intelligence services in the West estimated that it was a nuclear shell launched from a special 155 mm cannon which was built by an American company called Space Research."

"This special canon was purchased by Is-

rael and the Republic of South Africa, which succeeded in bypassing American, British and Canadian control systems.

"Western intelligence sources estimated that the explosion in September 1979 was a joint experiment by the RSA and Israel in one of the most advanced tactical nuclear systems known to be used anywhere in the world."

"According to American columnist Jack Anderson, Israel and the RSA have even agreed to co-operate with a third nation."

"Taiwan has probably joined the not so exclusive club of pariah states."

"Anderson adds that, in the framework of this triple-state co-operation there are indications that a common effort is being made to develop a Cruise missile with a 2 400 km range."

"Such a missile launched from Israel could hit any target within the Arab world, while

also covering many targets in southern Russia.

"This type of missile can be launched from an airplane or a ship, thus increasing its range by many more miles."

"There are also signs that Israel and South Africa are managing to develop a neutron bomb, and that they are working on the tactical arsenal no less than on the strategic one."

The latest CIA reports are said to have estimated the number of operational Israeli nuclear warheads at about 200.

Authors of the book are Uri Bar-Joseph, formerly of the Israeli Air Force, Amos Perlmutter, Professor of Political Science at the American University, and Michael Handel, a research associate at the Harvard Centre for International Affairs.

● Footnote: Many of the claims made in the book have been made before and have been officially denied.

Star
20/7/82

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Koeberg fire not as bad as thought'

ARGUS 20/7/82

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8/8

FIRE damage at the Koeberg nuclear power station is not as great as initially thought, and any delay is not likely to be too long, according to Escom's regional manager in the Western Cape.

Earlier an Escom spokesman said damage estimated at several hundred thousand rands had been done by the fire, which started in an electrical panel on Sunday night.

The spokesman also said the project could be delayed for some weeks as a result.

The Western Cape regional manager, Mr G F Hellström, said today that the statement was "a bit exaggerated."

"The contractors have started with the clearing up. They reckon they will get the thing cleared up pretty soon and, if there is a delay, it won't be too long."

Nobody was injured in the blaze, which was contained in the building where it started.

QUESTIONS

Mr Hellström also replied to questions put to Escom last night by Mr Roger Hulley, Progressive Federal Party spokesman on energy affairs for the Western Cape.

He said the delay in telling the public about the fire had been caused by a breakdown in telephone communications between Escom's head office and the Cape Town office.

"Johannesburg couldn't contact us and we couldn't contact them. Eventually they had to send us a telex.

"This sort of thing happens from time to time, but is not serious since we have both telex and radio communications which we can use in the event of an emergency.

ANNOUNCEMENT

"Normally we would not have announced something like Sunday's fire, but we thought we would as it happened at Koeberg, and we know the public is a bit sensitive about the plant.

"We had a similar incident at the Salt River station about two weeks ago, which was not announced."

Mr Hellström also said it was not yet possible to answer Mr Hulley's questions about whether the first had been caused by a malfunction in "fail-safe" equipment or whether the "human element" had been involved.

DIFFICULT

"We are still investigating. It is difficult to determine what caused it after the damage is done, but if and when we do find the cause we will make an announcement.

"The fire could have been caused by anything, including an electrical fault of the 'human element,' because the contractors are still working there.

"We are certainly investigating the whole matter, and there will be a full report later."

ARGUS. 21/7/82
Escom rejects
ANC claims

Argus Correspondent
JOHANNESBURG. — An
Escom spokesman has
laughed off claims by the
military wing of the ban-
ned African National
Congress that they were
responsible for the fire
that swept through the
Koeberg nuclear power
station.

The claims were broad-
cast over the Radio Ethio-
pia transmitters last
night.

The spokesman said
there was "no hint" of
sabotage at the power
station and said the fire
was caused by an elec-
trical fault.

Staw
21/7/87
Escom denies ANC's *55*
Koeberg fire claim *HA*

An Escom spokesman today dismissed claims by the military wing of the African National Congress that it was responsible for the recent fire at Koeberg nuclear power station.

The claims were broadcast in a "Radio Freedom" programme over the powerful Radio Ethiopia transmitters last night.

The spokesman said there was no hint of sabotage at the power station and added that the fire, which caused damage estimated at thousands of rands, was caused by an electrical fault.

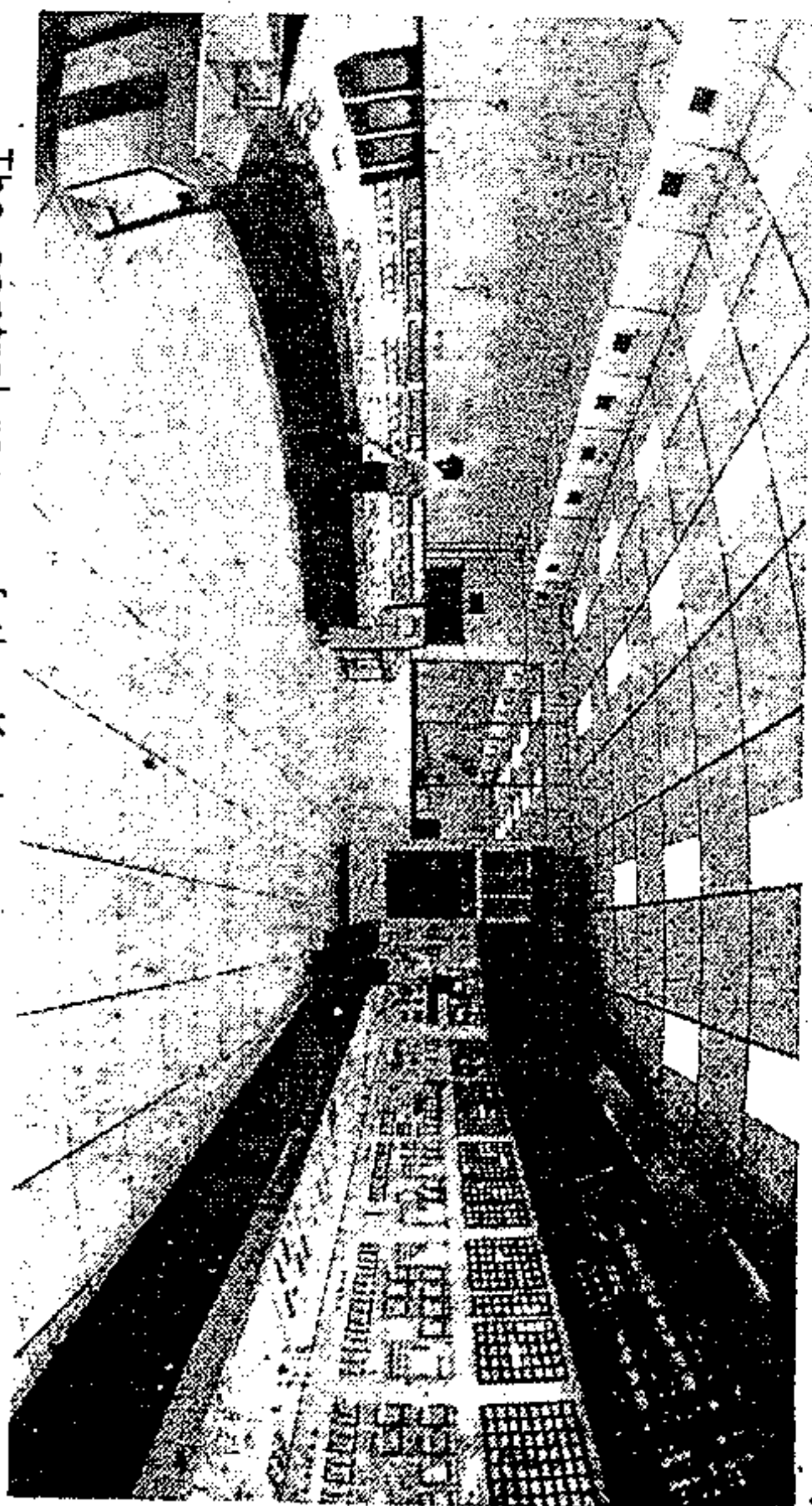
The fire in the electrical auxiliary building at the power station started about 5 pm on Sunday. It was extinguished by special Escom fire-fighting teams.

The ANC has claimed responsibility for several sabotage attacks in the Cape Town area in the past year.

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Koeberg fire: New call for safety assurances

By ROGER WILLIAMS, Chief Reporter



The control room of the Koeberg nuclear power station

WITH the recent breach of security at the Koeberg nuclear power-station site and now a potentially-hazardous fire in its electrical building, renewed assurances are being sought concerning public safety when the plant — the first of its kind in South Africa — becomes operational in a few months.

The R1 801-million N-station, sited a lot closer to metropolitan Cape Town than many academics and other concerned people feel it should be, is scheduled to start feeding power into the national grid early next year.

Professor Arnold Abramovitz, acting chairman of the body of concerned citizens known as Koeberg Alert, said yesterday in a reference to the recent security breach and now the fire at Koeberg:

"The public will want more than bland assurances that these things will not happen after the reactor has gone 'critical', when they could have incalculable health and safety consequences.

"The public will particularly want to be reassured that information on events of this kind will not be hushed up, but will in fact be volun-

teered in full — including a candid assessment of their implications for the safe operation of the plant."

Professor Abramovitz said it should be noted that Escom, when asked in July 1979 whether a log would be kept of all incidents arising from the operation of the reactors at Koeberg, had replied that such a log would be kept "as a matter of routine" and that Cape Town City Council and the public would have access to the log on request.

"It is to be hoped," he added, "that these assurances will be faithfully implemented. Only this way can damaging rumour-mongering be obviated."

While assurances were being given by Escom yesterday that the weekend fire damage at Koeberg was not as great as initially thought, questions were also being asked whether the fire was a result of a malfunction of supposedly "fail-safe" equipment at the plant; whether the "human element" was involved and why Escom had waited a day before making a statement on the fire. These and other questions are be-

ing asked against the background of mishaps at N-stations overseas, particularly the major accident which severely damaged Pennsylvania's Three Mile Island nuclear power-plant three years ago.

And with the recent revelation that that seemingly-inviolable seat of the British Realm, Buckingham Palace, was broken into on several occasions by a casual intruder, who ended up having a cosy 10-minute chat with Queen Elizabeth, in her bed-chamber, there have also been renewed calls for assurance on the security aspect of Koeberg.

Three men who broke into the construction site at Koeberg in May, apparently after money, were at first said to have used false documents, although it was subsequently stated in Parliament that two of them worked for the contractor concerned and had permits to be in the area.

Reference is made to the safety aspects of the Koeberg project in a report prepared by the City Electrical Engineer, Mr D C Palser, which was tabled at a meeting of the City Council's Executive Committee yes-

terday.

The report, on a meeting between the Escom Regional Liaison Committee (Koeberg) and Escom representatives refers to the emergency planning procedures developed for the n-station by Escom, as outlined by the power station manager, Mr P M Semark.

"It was stressed," the report says, "that no emergency situation was envisaged which would require immediate evacuation in haste. People in contaminated areas would be evacuated in a controlled manner in small groups.

"Environmental survey vehicles, assisted by SADF helicopters, would be available to map the extent of any contamination."

Mr Palser says in his report that the committee's attention was also drawn to the fact that small amounts of radio-activity were released routinely under controlled conditions during normal operations of a nuclear power station.

"Such planned releases would be checked continuously to ensure that they are well within safe limits set and enforced by the Atomic Energy Board."

In a reference to the Three Mile Island accident the report says the Koeberg design is "significantly different in certain respects" from the American n-station and that "a number of the recommendations flowing from the inquiry into this accident have been incorporated into the Koeberg design, including additional civil works.

"From the way in which the meeting was conducted and from what was said by the various Escom speakers, it is clear that Escom is fully aware of the public's concern regarding safety and is quite prepared to deal with any questions posed in a frank and open manner.

"There is no doubt that the safety and emergency procedures instituted by Escom meet and possibly even surpass internationally accepted standards, including those of the official monitoring body, the Atomic Energy Board."

Duduza coal price goes up

The Duduza Coal Traders' Association near Nigel yesterday increased their price of coal from R3,26 to R3,50 a bag.

Announcing the increment yesterday, Mr Kekane Moloi, chairman of the Traders' Association, said: "Last year the association applied to the Price Control Board in Pretoria to increase our coal price by at least 50c a bag and early this year the board gave us permission to increase our price by 24c as from May 11."

Mr Moloi said the association could not implement the 24c increase in May as they had planned because during that period coal in the whole country had been scarce. By increasing their price it would have seemed that they were exploiting the residents because

of the shortage of coal

Mr Moloi said: "Due to the ever-increasing price of diesel, tyres, spare parts, repairs and the wage increment for their workers that they recently received, the association had no alternative but to increase the coal price. In the past merchants were working at a loss but to survive and to continue serving the community the only alternative was to increase the coal price."

Mr Moloi said that at the moment coal merchants in Duduza were still the cheapest on the East Rand, if not throughout the country, because they were charging R3,50 for a 90kg bag of coal, whereas other areas charged R3,20 and R3,50 for a 70kg bag of coal.

45/2/80
Sowetan
22/1/82

Power failure 'plague' upsets public

By JIMMY MATYU

FOR the third time in a week a power failure blacked out a large part of Port Elizabeth's townships last night and it has left many residents embittered.

In some areas power supplies were restored after an hour while in others they were restored only this morning.

Garage, cinema and shop owners have claimed that the failures, which started early this month, have cost them thousands of rands.

They blame the East Cape Administration Board, which charges higher tariffs than the municipality.

A garage owner, Mr Dan Qeqe, said today that every day this week power failures had occurred at peak hour when there were long queues waiting to buy petrol.

"I had to turn them away. In one hour I lost between R300 and R400," he said.

"If Ecab cannot cope with the electricity supply, it should again become the responsibility of the Port Elizabeth Municipality. We experienced no problems under them. They used to advise people when there was to be a power cut."

A show business promotor, Mr Bonakele Nomkonwana, said the failures had caused many people, particularly children, to miss their favourite television programmes.

He described the power failures in the townships as a "plague".

The secretary of the Domestic Workers and Salesladies Association, Mrs Pat Maqina, said that after the announcement in February by Ecab's chief director, Mr Louis Koch, that blacks paid more than whites in order to cover distribution costs, Ecab had not played fair with residents.

"We are still expected to continue paying the availability charges — even when power failures occur with monotonous regularity.

"In my area the power failed at 6.30pm, and the supply was restored only at 7.30am today."

the politicians will not listen.
 missing now Beverly of the night's
 Robertson Life in re and it in his payment.
 Argus, Beverly or y her to orker Mr morning

So South Africa's deep-sea air search and rescue capability lies in a few 25-year-old Shackletons which must soon be destined to go to pasture through fatigue.

Equipment has also changed drastically and, as the months go by, the watchdog role of 35 Squadron in the South Atlantic is being eroded by the selfish attitude of governments which have hamstrung their armaments manufacturers.

Human error caused Koeberg fire - claim

ARGUS 23/7/82 ~~55/56/57/58~~

HUMAN error was responsible for last weekend's fire at the Koeberg nuclear power station, according to two independent and extremely reliable sources, but an Escom spokesman would not confirm their allegations.

Both sources, who asked not to be identified for their own protection, said the fire, which has delayed the completion of the project, was the result of a short-circuit, caused by a spanner being left lying on a "bus-bar" (two electrical points) by workmen.

where the spanner had been left, causing the bus-bar to melt and explode into flame.

Apparently the 48 volt trip-switch was turned off at the plant when workmen removed electrical panels for an inspection.

The Argus put these allegations to Mr G F Hellstrom, Western Cape Regional Manager for Escom.

A spanner was left on the bus-bar when the workmen left, and the panels replaced.

When asked if he would confirm the allegations, Mr Hellstrom said: "Definitely not."

He said an investigation into the incident was still being conducted, "and at this stage there is no indication of such a thing having happened."

EXPLODE
 The electrical current was then turned on again, but not the trip switch, and the result was a short-circuit at the point

A report on the incident would be released shortly.

Mr Roger Hulley, the Progressive Federal Party's spokesman on the environment, said Escom should confirm or deny the allegations and called again for a full inquiry into the incident.

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Showers

WEATHER forecast for the Peninsula, Boland and Overberg for the period ending 6 pm tomorrow:

Cloudy and cold with showers. Wind: Fresh to strong north-westerly becoming south-westerly to southerly overnight.

The minimum temperature at D F Malan Airport will be between 7 and 9 deg C.

New moon ... August 19
 First quarter ... July 27

THE SUN
 Sets today ... 1800
 Rises tomorrow ... 0745

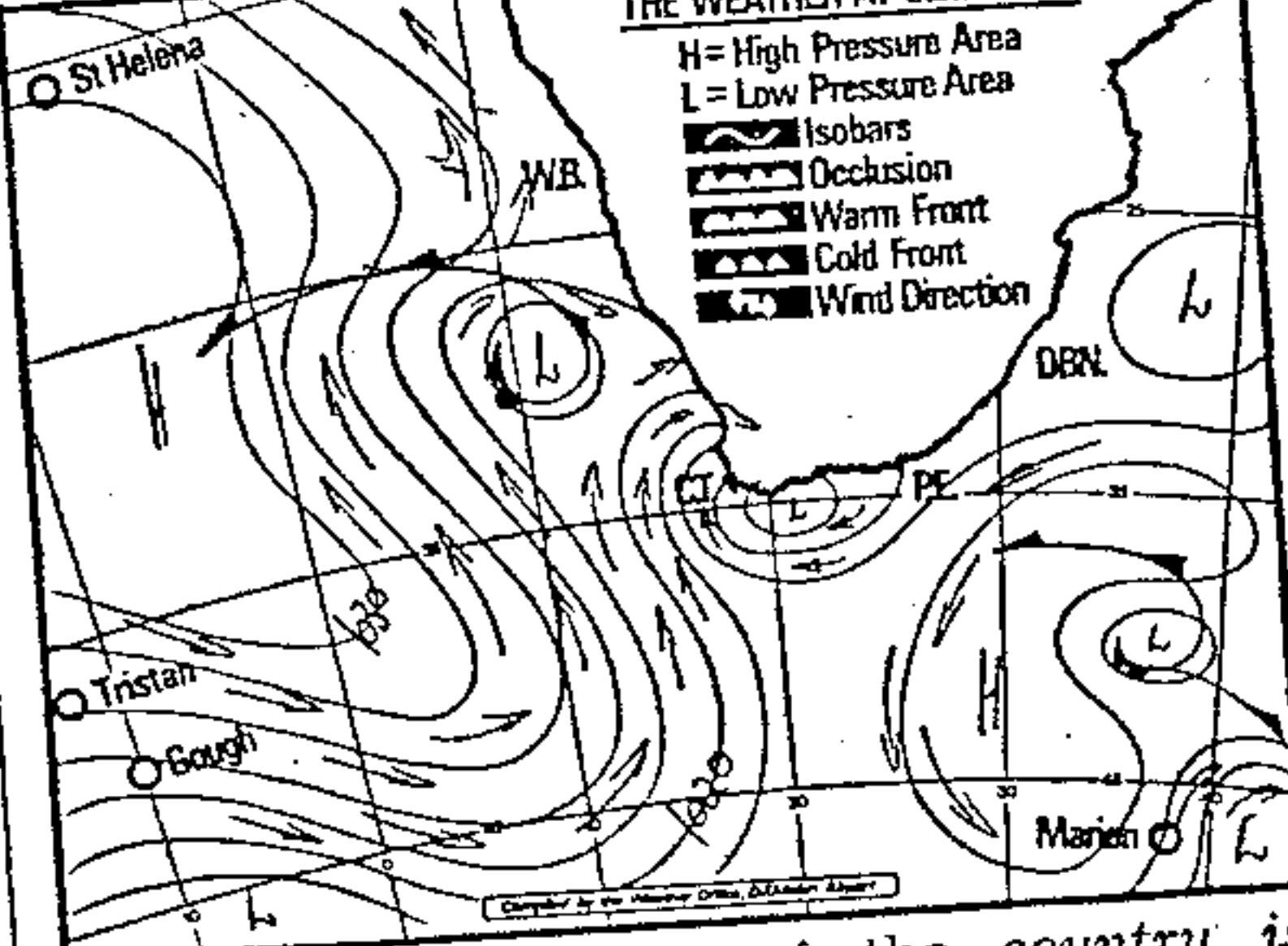
THE TIDES
 High water:
 Today ... 0506 1730
 Tomorrow ... 0532
 Low water:
 Today ... 1114 2349
 Tomorrow ... 1157

WATER TEMPERATURES
 Sea Point:
 Sea ... 12 deg C
 Pool ... Closed
 Muizenberg:
 Sea ... 13 deg C
 Pool ... 12 deg C

TEMPERATURES (0800)
 Johannesburg ... 9 deg C
 Kimberley ... 2 deg C
 Durban ... 15 deg C
 Windhoek ... 0 deg C
 Pretoria ... 8 deg C
 Cape Town (yesterday, 1400) ... 11 deg C
 Cape Town (today, 0900) ... 9,9 deg C

THE MOON
 Full moon ... August 5
 Last quarter ... August 12

For the latest, up to the minute detailed weather information for today, phone 46-1261.



LOW pressure south of the country is causing the cloudy, rainy weather over the Cape Province. This will persist for the next 24 hours.

'Foreign object' may have caused blaze

Municipal Reporter

THE electrical switchboard fire at the Koeberg nuclear power station might have been caused by a foreign object accidentally left inside the distribution board, Escom's Western Cape regional manager, Mr G F Hellström, said yesterday.

Mr Hellström said in a statement that the investigations into the cause of last Sunday's fire were continuing.

A full report would be submitted to the licensing authority and the findings would be made public.

However, preliminary inquiries pointed "to the fact that a foreign body accidentally may have been left inside the distribution board and caused the fault which in turn led to the fire".

No further estimate of the cost of the damage was available but good progress was being made with repairs to the board and the associated cabling.

"We will keep the media informed of any developments."

● An Electricity Supply Commission spokesman earlier denied that the military wing of the African National Congress was responsible for the fire, as the ANC had claimed in a radio broadcast over Radio Ethiopia on Tuesday night.

The spokesman said there was, "not the even the faintest chance" of sabotage causing the fire.

Escom admits 'human error' in Koeberg fire

W/E ARGUS

24/7/82 Weekend Argus Reporter

ESCOM officials have acknowledged that human error probably caused last weekend's fire at Koeberg nuclear power station.

A statement from Mr G F Hellstrom, the Escom regional manager, says that "preliminary inquiries point to the fact that a foreign body accidentally may have been left inside the distribution board and caused the fault which in turn led to the fire."

The electrical board in question has "no impact on nuclear safety," according to Mr Hellstrom.

His response follows an Argus report yesterday quoting reliable sources who claimed human error had caused the fire.

SPANNER

Both sources, who asked not to be identified, said the fire was the result of a short-circuit caused by a spanner being left on a "busbar" (two electrical points) by workers.

Escom has been sharply criticised for its handling of the fire which has delayed the project and caused damage initially estimated at several hundred thousand rands.

Mr Roger Hulley, the Progressive Federal Party's spokesman on the environment, has called for a full inquiry into the incident.

He has accused Escom of delaying information to the public. However, Mr Hellstrom has said there had been communication difficulties between Cape Town and Johannesburg.

SIMULATED

During a recent simulated nuclear accident — a licensing requirement — at Koeberg, the station's experts said they had been forced to assume that several highly unlikely things had gone wrong.

These included the loss of an electrical "bus-bar" as well as assuming that a worker had accidentally dropped a spanner through a reactor valve, out of which radioactive steam was escaping.

Body for nuclear safety established in South Africa

PRETORIA — The Minister of Mineral and Energy Affairs, Mr F W de Klerk, has announced the establishment of an independent Council for Nuclear Safety to advise him on the safety of nuclear activities and installations.

The council will also have a veto right on the granting of nuclear licences by the Atomic Energy Corporation (AEC), the organisation responsible for promoting nuclear energy and related technologies.

Furthermore, the AEC's own installations would be subject to review by the council.

According to the Minis-

ter's statement, the establishment of the council is an important step in restructuring nuclear activities in South Africa.

Appointed by the Minister, the council will be responsible only to him for the safety review of nuclear installations and other nuclear activities, irrespective of whether such activities are undertaken by public organisations or the private sector.

Mr S L Craib, former chairman of the Nuclear Safety Advisory Council, has been appointed chairman of the Council. Mr M T de Waal, managing director of the Industrial Development Corporation of SA, is vice-chairman. — Sapa

Township power off for the whole night

2446 (59) Post Reporter E. Post 30/7/82

FOR the fourth time in two weeks power failures plunged much of two Port Elizabeth's black residential areas into darkness last night, resulting in losses for businesses.

In the Tembaletu area and in parts of New Brighton, power supplies were cut off from about 6pm yesterday to 7.30am today and garage, cinema and shop owners claim the regular failures have cost them thousands of rands.

A garage owner, Mr Dan Qeqe, said his business was suffering because of repeated failures during peak business hours. "This always seems to happen in the evening rush hour — almost as though it was deliberate," he said.

Mr Qeqe criticised the East Cape Administration Board (Ecab) which, he said, "charges a higher rate than the Port Elizabeth Municipality, yet cannot provide an adequate service".

Failures in the municipal area were repaired "in minutes", yet Ecab took more than 12 hours to restore the service, he said.

"They wonder why students riot and why the workers are so angry. It is things like this, when people cannot get a hot meal or cannot study, that are largely responsible."

Ecab's chief director, Mr Louis Koch, was not available for comment.

Tale of two

55
E. Post
31/7/82

cities — and their tariff fight

Paper No.
(to be copied from the heading on the Examination Paper)

PORT ELIZABETH'S City Treasurer, Mr Amandus Strydom, this week called for an end to the war of words between PE and Uitenhage over allegations of "unfair" electricity tariffs.

Leading the battle on behalf of Uitenhage is Mr J N Redelinghuys, a Uitenhage-based industrialist who claims he and his colleagues are charged a premium for electricity, which is then ploughed back into Port Elizabeth's general rates account.

"Assessing only three bulk users of electricity in Uitenhage we find that they are faced with a monthly bill of R188 500 more than they would have been charged had they bought the current directly from Escom and not, as is the case, via the Port Elizabeth municipality.

"This represents almost 62% more than the account would have been if the current came from Escom," charged Mr Redelinghuys in an interview with BUSINESS POST.

Mr Redelinghuys added there existed a "strong suspicion that the [Port Elizabeth] electricity account is used to subsidise other municipal expenses and return a net profit to the municipality".

So, what it boils down to is that Uitenhage industrialists are, in his view, subsidising the electricity accounts of Port Elizabeth's consumers.

Mr Strydom dismissed Mr Redelinghuys's claims on several grounds:

● In the first instance there was nothing underhand about making a profit on the electricity account, and following the recent Brown Committee Report local authorities were authorised to budget for surpluses of up to 10% on trading accounts as a means of raising finance to run their cities.

● In any event the pending Government subsidy on electricity tariffs (which will be applicable to domestic consumers as well as industrial users), will reduce all tariffs throughout the Algoa Bay area to rates equivalent to those paid in the Eastern Transvaal.

● The Port Elizabeth municipality in fact supplied power in bulk to Uitenhage at "normal tariffs less 2.5%" (to allow Uitenhage's local authority to raise the funds required for administering the service).

● While it was true that Uitenhage consumers contributed to the 10% surplus on the electricity account, they also benefited from the subsidised interest rates on finance raised by the Port Elizabeth municipality to provide the infrastructure for generating power.

"And if the Uitenhage users wanted to scrap the 10% surcharge built into the electricity tariff, we should, in the interests of equity, also scrap the subsidy of the finance charges provided by the municipality's consolidated capital and loan fund," Mr Strydom remarked.

In his breakdown of electricity bills paid by two Uitenhage industrialists, Mr Redelinghuys detailed all components of the bills and came up with these conclusions:

	Actual bill	Escom equiv	Change
Company A ...	R184 066	R120 034	+R64 031 +53,34%
Company B ...	R212 380	R128 463	+R83 917 +65,32%

But Mr Strydom was quick to point out that Mr Redelinghuys had based the equivalent Escom charge on tariffs applied in the Eastern Transvaal, and that had he done so on tariffs charged by Escom in the Eastern Cape, he would have discovered that Uitenhage users are in fact billed at a lower rate than that paid by users in, say, Despatch (which is billed directly by Escom).

"In fact this entire issue was discussed around the middle of last year when we raised the Uitenhage tariff, and Escom's board officials came to Port Elizabeth to investigate whether the new tariff structure was fair.

"Far from penalising Uitenhage users when compared with the ruling Escom rate for the Eastern Cape, Port Elizabeth is in fact charging less.

"The electrical engineer extracted some figures and demonstrated that the combined bill paid by Uitenhage consumers in January last year was R669 510, whereas if the power was supplied at Escom rates the bill would have been R703 080 — 5% higher than the PE rate."

It appears that Mr Redelinghuys has erred in his arithmetic and the subsequent conclusions he has drawn from that arithmetic. He has compared apples with pears and deduced that Uitenhage is left with a lemon — unfairly.

What his investigation may reveal, however, is that initial estimates that the pending electricity subsidy will amount to some 25% (in order to reduce tariffs to the equivalent paid in the East Transvaal) could be way out of line.

Based upon this assumption the annual subsidy for Port Elizabeth/Uitenhage users would work out to some 25%, the amount involved, said Port Elizabeth Town Clerk Mr P K Botha some time ago, would be R9 million.

However, if Mr Redelinghuys is correct in saying that two Uitenhage consumers are paying 53% and 65% above the Eastern Transvaal rate, then this figure may have to be revised.



By Louis Beckerling

Business Editor

NOTE CAREFULLY

1. Enter at the top of each page and in column (1) the number of the

WARNING

1. No books, notes, pieces of paper or other material may be brought into the examination room

By ELLIOT

TSHINGWALA
SOWETO's electricity supply is on the brink of plunging into a total blackout if experienced staff are not found soon.

This was said by Electricity Department staff at Orlando Power Station on Friday who are taking up new posts in the city after completing their contract with the West Rand Administration Board (Wrab), the new owner.

Electricity supply may collapse

The electricians said they doubted if Wrab staff would be able to cope in the next few months.

Electrical contractors presently working on a giant project to electrify Soweto were a major headache because they cut cables while digging trenches, thus cutting off power to that particular area.

The artisans, who refused to be named, said it was difficult to trace such faults because after the cables were damaged the trenches were filled.

Already nine chambers, serving a total number of about 1 800 houses, are out of action. This does not include lights, which at some places.

such as Tshiawelo, have been out of action for more than three months.

The seven-man team, led by two white engineers, were kept on after Wrab took Orlando Power Station over from the Electricity Department. According to one of the men, they were kept on in an agreement that they work with Wrab electricians until Wrab could operate on its own. This has not been achieved, although the agreement was made two years ago, he said.

A senior engineer at the station agreed that the situation was bleak. He said Wrab would need experienced people to cope with the job. A period of difficulty would be experienced before the new team fully grasped the situation. He said this happened to everyone starting a new job, but he agreed that it would be at the expense of the residents.

Businessmen in Soweto are complaining that the recent power failures are costing them a lot of money. A Zola businessman, who owns a takeaway-chicken concern, told reporters last week that power cuts had cost him R8 000.

Some businessmen are buying generators in an attempt to keep their businesses going in spite of the power failures.

Mr John Knoetze, Wrab's chairman, was unavailable for comment.

ENERGY

Viability of Sasol 4 in question

55 26/10 Industrial Week 3/8/82

THE SUCCESS of Sasol 2 and 3 does not necessarily mean that Sasol 4 will also be economically viable, says Terry Le Roux, industrial analyst.

"The success used by Sasol for converting coal into liquid fuels is horrendously capital intensive and at present the capital costs are rising at a much faster rate than the price of crude," said Le Roux.

The decision of the Government to fund the developments of Sasol 2 and 3 is seen by most international energy executives as a brave, but wise move.

The technology was proven, but the economics uncertain. It is now generally accepted that Sasol 2 and 3 will be

profitable because future production costs have to a large extent been determined by spending the capital.

It is unlikely that the price of crude oil will ever drop from current levels, though they might remain at this level until the world comes out of recession, Le Roux said.

"The indications are rather that by the end of this decade the price of oil will be almost double the current price.

By Priscilla Whyte

"The Sasol process does not have universal applicability.

"The economic success of Sasol 2 and 3 will not necessarily be repeated in other countries," said Le Roux.

The important factors that have played a role in ensuring that Sasol 2 and 3 are economically viable according to Le Roux are:

- the effective cost of capital for Sasol 2 and 3 is

considerably lower than the commercial rate — it could be as low as 4 %.

- Sasol receives a rebate of 3,4c a litre of transport fuels (equivalent to US: \$7-30/barrel of gasoline).

- the fuels and petrochemicals from Sasol 2 and 3 will be priced at an oil equivalent international price related to spot prices not the official OPEC price and the spot price varies between \$5 and \$10/barrel.

... need will

**

Electricity sales rise in 1981 below that for 1980

55 *EP*
E. Post
5/8/82

Municipal Reporter

THE increase in the sale of electricity in Port Elizabeth last year was smaller (7%) than the increase for 1980 (11,4%) although it was still above the average increase of 5% recorded during the last 10 years.

These facts are contained in the 1981 annual report submitted by the City Electrical Engineer, Mr C E Adams, to the City Council this week.

The slowdown in the economy is reflected in the statistics given. Of the greatest significance is the fact that industrial consumption of electricity was up by 8,6% — more than 10% less than the massive increase of 18,7% recorded for the previous year.

There was also a fall-off in the demand for electricity by commerce. Whereas the use increased by 8,6% in 1980, the increase last year was 5,9%.

The picture on the domestic front was the reverse — use of electricity increased by 4,7% last year, compared with an increase of 2,6% in 1980.

Mr Adams said that after a contribution of R5 726 618 to the Rates and General Service Account, the Electricity Service Account showed an operating surplus of R1 450 807 last year.

The gas service showed a deficit of R1 363 055, which

was covered by the surplus in the electricity fund, he said.

Discussing the Swartkops Power Station, he said that operating staff turnover was 81% last year, but an improvement in this situation was noted towards the end of the year.

Absenteeism among black employees was increasing, he said.

The year was significant in the number of plant failures experienced. This could be attributed to the age of the station and the fact that major overhauls were not undertaken or planned because of "high standby plant requirements".

Mr Adams said that under the existing mutual standby agreement, Escom was assisted by increasing generation at Swartkops on 31 occasions.

The 11 major projects which were worked on by his department during the year included: the Bloemendal substation to supply Booyesen Park and other coloured (and possibly) black residential development; the Russell Road substation to augment the network in the Central Business District; and Greenacres substation to supply the developments in that area.

● See Pages 3 and 4

Flash was ^{Mercury} atomic blast, ^{7/8/87} writer claims

MADISON—A mysterious flash detected over the South Atlantic in 1979 was the blast of an atomic bomb developed and tested by South Africa, a writer claims in the Wisconsin magazine, Progressive.

Samuel Day, a contributing editor, said he went to South Africa in May, skeptical about reports that the nation had developed a nuclear bomb.

He said he left in July, having concluded his research with the fact of South Africa's uranium-enrichment capability to make what he calls 'a circumstantial case for South Africa having the bomb'.

'The preponderance of evidence is clearly on the side of their having an actual nuclear weapon,' he said in an interview.

His article speculates that South Africa developed the bomb for use against the nation's black majority in case of a major uprising, a theory denounced by a South African official in Chicago.

U S scientists have said two bright flashes detected by a reconnaissance satellite off the African coast in September 1979 were caused by a particle of dust colliding with the satellite.

But Mr Day said he uncovered evidence in South Africa that the flashes were really the tell-tale signature of a nuclear explosion.

He claimed Mr P W Botha was quoted four days after the flash as telling the Cape National Party congress that South Africa had 'military weapons they do not know about'.

He said shipping journals showed South Africa's Navy established an off-limits ocean area along the north-western coast of the Cape Peninsula shortly before the satellite sighting.

A bomb could have been assembled at the African Explosives and Chemical Industries plant at Somerset West, he said.

Peaceful

Mr Day wrote that the plant manager's secretary remarked in an apparent slip of the tongue that the company would not allow anyone in 'nuclear — I mean our manufacturing — areas'.

'South Africa has a long history of nuclear research and nuclear energy,' said Mr Gert Grobler, South African Consul-General in Chicago.

'We use our nuclear research and nuclear energy for peaceful purposes only.'

'You don't need nuclear arms to suppress an uprising,' he said.

In Pretoria a spokesman for the Atomic Energy Corporation declined comment on the report. — (Sapa-AP)

Tariff rises anger Indians

55 Star
11/8/82

Residents in Actonville, the East Rand's largest Indian township, are angered by increases in their electricity accounts — in some cases by as much as 200 percent.

The increases affect households in Actonville Extension 1 and 2.

At a meeting called by the Actonville Rents Action Committee this week about 250 people decided to send a memorandum to the Benoni City Council and the Minister of Community Development, Mr Pen Kotze, rejecting the "arbitrary and unfair" increases.

The chairman of the Rents Action Committee, Mr Vicky Padotan, said: "We want to know on what basis the council decided to increase the tariffs, and what this money will be used for. These increases have been imposed without consultation.

"Some of us have been told we will have to pay 50 percent more for our electricity and others 200 percent more."

A spokesman for the Benoni City Council said it was usual for residents to use more electricity during winter, which meant they had to pay more for electricity.

The council had also increased tariffs throughout Benoni to offset a price increase by Escom.

TRENCH WAR GAINS IMPETUS

THE family of a six-year-old Soweto boy who died after falling into a trench is seeking legal advice on how to act against the construction company concerned.

The move follows a recent R900 payment by a construction company to cover the funeral costs of another victim who died in a trench in Zola North.

Little Andrew Booyens of Orlando East died in Baragwanath Hospital last week after hanging his head against the bottom of a half-metre deep trench.

His distraught grandmother Mrs Mary Mokoena said Andrew slipped into the three-month-old trench while he was on his way from their outside toilet.

"I heard him cry out in pain, and when I looked around I saw one

By CHARLES MOGALE



THAT GULF: Mothers fear for their little folk.

of his legs protruding from the trench. His head was lying still at the bottom. I rushed to him and asked if he was

Six ⁵⁵ year ~~old~~ ^{Some four} boy dies — firms face anger and legal action

Andrew's mother Mrs Violet Booyens said the boy could not sleep that night.



FLASHBACK: Mr Abraham Botso stands in the trench where his wife died in April this year.

"He was in pain. I put on the light and saw that his eyes were shut. His neck was stiff. He was also messing his pants, something unusual for him," she said.

The boy was rushed to Baragwanath Hospital where he was put onto a drip.

"He was unconscious then and never woke up," Mrs Booyens said.

The family said the trench has been open for the past three months.

"We saw it could be dangerous and closed it up for some time, but three weeks ago they (trench diggers) came and opened it again," Mrs Booyens said.

Man dies in trench

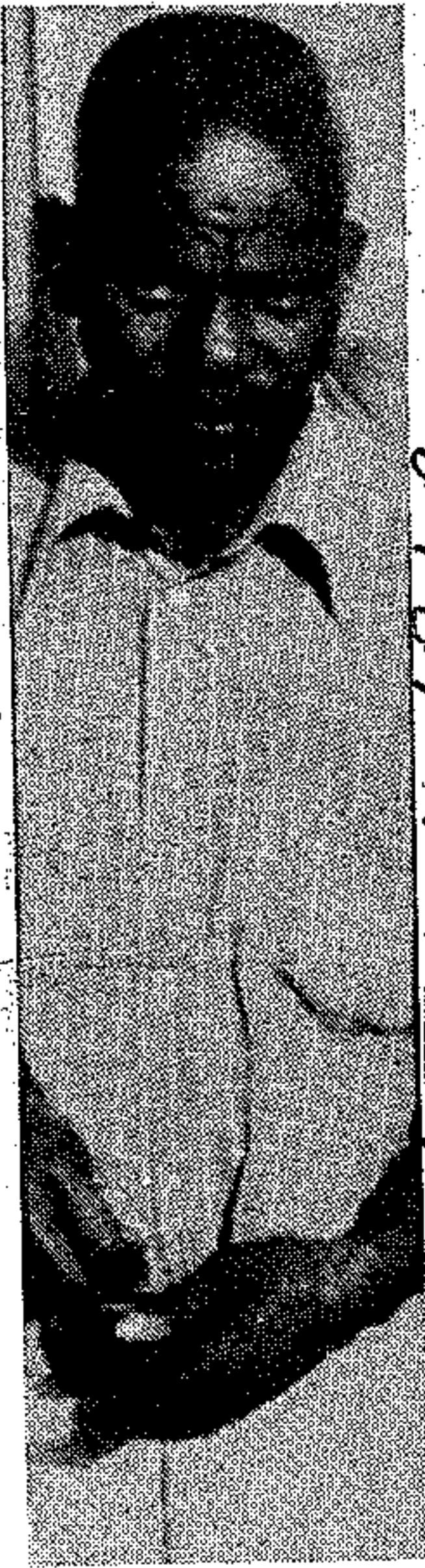
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~~3/8~~

ANOTHER person has died in Soweto after falling into a trench not far from his home.

Mr Patient Zalisile Mehlomakhulu (42), of Zola Three, slipped and fell head-first into a trench on his way home from work.

At least four people have died and about 100 have been injured this



Sowe fem 17/8/82

DEAD: Zalisile.

year by falling into unprotected trenches dug to lay stormwater pipes and electricity cables in Soweto.

REVIVE

The dead man's sister, Ms Victoria Mehlomakhulu, told **The SO-WETAN** that they had been woken on Saturday morning by terrified neighbours, who had said her brother was lying in a trench.

"We dashed to the place, which is just a few streets from our home. We found Zalisile lying motionless and I immediately jumped into the trench." Ms Mehlo-



TRENCH: Victoria Mehlomakhulu points to the trench which claimed her brother's life.

makhulu said.

She said she had tried to revive her brother but realised he was dead.

SALARY

Ms Mehlomakhulu said foul play was out of the question as her brother had still had his wages in his pocket.

"It seemed he broke

his neck. The position we found him in indicated he had slipped on the heaped sand and fallen into the trench," she said.

The Mehlomakhulus blamed the death on the negligence of the authorities, who "do not care what happens to black people in the

townships".

Mr Mehlomakhulu will be buried on August 28 at the Avalon Cemetery.

People who have been injured and the families of people killed by falling into trenches have been advised to take the matter up with the Department of Labour offices in Johannesburg.

(55) ROOM
'Coal-oil
has good
future
in SA'

Pretoria Bureau

SOUTH Africa needs liquid fuels from coal to protect itself against further disturbances in the crude oil producing countries, to save foreign exchange, and to create jobs for its growing working population.

This was said in Pretoria yesterday by Mr J C Hoogenboom of the Rand Afrikaans University when he opened the International Coal Conversion Conference at the CSIR.

He said the number of companies had already made submissions to the Government on future coal-based liquid fuel plants.

The future of the coal conversion industry in South Africa was bright, he said.

An American authority Mr J B O'Hara said liquids had been produced from coal for industrial uses in South Africa, Germany, Britain, Japan and Korea.

And the South African experience made it the leader.

Dr G H Beyer, of the Virginia Polytechnique Institute University said the two large Sasol plants in the smaller South African economy would represent a R450 000-million investment proportionately in the larger US economy — an investment that was unlikely to be made.

Copy on page 5

(55) (12/18/87) Sowetan

Women slam trench

deaths



TRENCH OF DEATH: "Authorities don't care what happens to us," said Ms Victoria Mehlomakhulu, whose brother died when he fell into a trench.

CONTINUED deaths as a result of falling into unprotected trenches around Soweto have sparked anger among black women who yesterday said authorities were slow to solve the situation and did not value the lives of blacks.

BY ALINAH DUBE

They were reacting to an article in **The SOWETAN** that another man — the fifth so far — had died after falling into a trench.

Mrs Leah Tutu, of the Domestic Workers' and Employers' Project, said the fact that it was such an obvious danger to have trenches unprotected all over the area showed that "our lives are regarded so cheaply" by authorities.

"It is a known fact that black children use the streets for a playground because of the lack of facilities. You can imagine what can happen to our children if they fall into these trenches," Mrs Tutu said.

She said the problem would have been dealt with immediately — had it been in a white residential area.

She felt it was ridiculous for residents to be told they could lodge complaints with the Department of Labour "as that will not bring the dead back to life."

A social worker, Mrs Shirley Leso, said it was time the authorities realised the dangers involved in leaving trenches uncovered.

"With roller skates being an in-thing in the townships, our children are risking their lives."

She said residents needed protection against damages that were possible to avoid.

Ms Amanda Kwadi, of the Federation of South African Women, said it was insensitive of authorities to pay attention to "luxuries of this world" while burning issues were ignored.

"Why is the Soweto Council not doing something to get these trenches protected?" she asked.

Ms Kwadi said councillors enjoyed the privileges of their seats but were "not interested in the well-being of the community."

"All they know about is organising trips overseas and spending huge amounts of money on unnecessary things," she said.

The women pointed out it was inhumane of authorities to expect elderly people "to jump over the dongas" when they were supposed to be treated fairly during the International Year of the Aged.

Mossel Bay

55 Saw
gas to be

12/8/82
exploited

CAPE TOWN — Gas produced from a field off Mossel Bay would be used mainly as an energy source, the chairman of Soekor, Mr D P de Villiers told the Cape Town Afrikaanse Sakekamer yesterday.

He said some of the gas might be used in the chemical industry.

Mr de Villiers said 32 of the 71 wells so far completed at sea had been dry. Two had produced oil, but not in viable quantities, and four had shown signs of oil.

Of the 15 wells that had produced gas, four were commercially exploitable and the least of these had a capacity of 4,75 million cubic metres a day. The remaining 11 produced at least 475 000 cubic metres a day.

This was more than three times the amount of gas produced daily at the Cape Town and Port Elizabeth gasworks, he said. — Sapa.

Soekor head: No oil for SA from Chiavelli

Own Correspondent

JOHANNESBURG. — The chairman of the quasi-government oil-exploration corporation, Soekor, yesterday apparently flew in the face of the law and a parliamentary statement made in March by the Minister of Mineral and Energy Affairs, by discussing on the radio possible sources of the Republic's oil supplies.

Dr Dawid de Villiers said on an SABC programme that there was too much secrecy surrounding the Republic's oil sources.

He also said emphatically that the Italian billionaire Dr Marino Chiavelli had never supplied South Africa with a drop of oil.

Yesterday he told the Cape Times correspondent that he was "not responsible" for what he had said.

But he repeated the statement and elaborated on it.

Then he said he hoped he was not saying anything contrary to the National Supplies Procurement Act which forbids unauthorized statements on oil.

In March the former Minister of Mineral and Energy Affairs, Mr F W de Klerk, told Parliament that any comment on Dr Chiavelli's involvement in South Africa's oil supplies would be against the law.

He accused a Progressive Federal Party MP, who raised the subject, of misusing parliamentary privilege to break the law when he asked whether South Africa was one of the politically sensitive countries supplied with Saudi Arabian oil through Dr Chiavelli.

The question was asked after a Sunday newspaper reported Dr Chiavelli as saying he had made his billions by acting as a Saudi front-man for oil supplies to politically sensitive countries.

Last night the PFP spokesman on energy affairs, Mr John Malcomess, called on the Minister, Mr Pietie du Plessis, to clarify Dr De Villiers's statement.

The statement is unprecedented in recent times because the National Supplies Procurement Act stipulates: "No person shall publish in any newspaper, periodical, book, or pamphlet or by radio, television or any other means, information in relation to the source, manufacture, transportation, destination, storage, quantity or stock level of any petroleum products acquired or manufactured or being acquired or manufactured for or in the Republic."

In the radio programme Dr De Villiers was asked about the secrecy surrounding South Africa's oil sources.

Question: "The level of secrecy that's involved in the procurement of oil, many people would say that the level of secrecy is far too high and in itself creates rumours. Isn't the whole thing self-defeating?"

Dr De Villiers: "Your last statement is correct. It does create rumours. For instance Chiavelli is continually being mentioned as a person supplying oil to South Africa and he has never supplied oil to South Africa, not at all, I can assure you."

Neither the former nor present Minister of Energy Affairs was available for comment yesterday.

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EL

Electricity refund: EL waits while King pays

D. Dispatch 19/8/82

EAST LONDON — For the past three months King William's Town electricity consumers have been getting the government electricity subsidy but consumers here are still waiting.

Since the May electricity account, reflecting consumption during April when the subsidy legally came into effect, the King William's Town borough council has been paying out about R60 000 a month to consumers.

The Town Clerk, Mr Henry Hutten, said the borough council began refunding the town's consumers out of its own coffers as soon as the government's decentralisation concession became effective.

"We felt we should pass the subsidy onto the consumer from the start," he said.

The subsidy has knocked about 20 per cent off domestic accounts in the town — depending on consumption.

"The formula we use for domestic consumption means that the greater amount of electricity consumed results in a greater discount," he said.

East London's chief electrical engineer, Mr Ken Robson, said that if the city was to pay the subsidy out of its own coffers it would cost the city R500 000 a month.

The city treasurer, Mr John Howell, said the subsidy would be reflected on accounts as soon as the city was paid the subsidy by the Decentralisation Board.

"We haven't received anything yet, but we will pay as soon as we do," he said.

Mr Howell said some means would have to be devised to ensure local consumers received the discount from the May accounts (which reflect April consumption).

The decentralisation concessions became effective from April 1.

"I don't know how the decentralisation board will pay us, but we have to devise some means where we do pay from the May accounts," he said.

Mr Howell said the municipality would not be paying interest to consumers on the subsidies that have not been passed on yet.

"The subsidy is not being paid by the municipality, so we will not be paying interest on it and I don't think the Decentralisation Board is going to be paying interest." — DDR

53 Star 19/8/82
Remarks about oil

may contravene Act

By Sheryl Raine,
Pretoria Bureau

The Department of Energy Affairs is investigating a possible contravention of the National Supplies Procurement Act following statements on the radio by Dr Dawid de Villiers, chairman of Sasol and Soekor.

Mr Sarel du Plessis, director-general of the department, said today

that remarks made by Dr de Villiers this week concerning the supply of oil to South Africa were being investigated.

"It appears that Dr de Villiers spoke in his private capacity and expressed his personal views. We will discuss the matter with him," said Mr du Plessis.

Dr de Villiers said on an SABC programme
To Page 3, Col 6



Dr de Villiers
facing a probe.

53
Inquiry
into oil
comments
Star 17/8/82

▶▶ From page 1

that there was too much secrecy surrounding the country's oil sources.

He also made reference to rumours about Dr Marino Chiavelli, an Italian millionaire believed to supply politically sensitive countries with oil from Saudi Arabia.

Dr de Villiers told radio listeners that Dr Chiavelli had never supplied oil to South Africa.

In Johannesburg today Dr de Villiers told The Star: "I stand by what I said in the radio interview about Dr Chiavelli.

"I will say it again: Dr Chiavelli is not involved in oil transactions for South Africa.

"The radio interview followed a speech I gave in Cape Town. My theme was that it is essential there should be secrecy about oil supplies, but that I was also sorry this led to rumours.

"There has to be secrecy under the National Supplies Procurement Act because oil importation is such a delicate issue."

Dr de Villiers said he could not judge the accuracy of the radio interview because he had not heard it.

Death traps: who is to blame?

55

Sowetan 19/8/82

Family war over house

THE Soweto trench deaths outcry is mounting with residents angered by the apparent lack of action to stop trench accidents.

The holes have already claimed five lives since the upgrading projects started in Soweto and, as the toll seems to be rising, authorities appear to be stumped by the continuing accidents in these open trenches.

The chief executive officer of the Soweto Council, Mr Nico Malan, said yesterday his council was doing its part by urging the contractors to put up warning signs.

The trenches claimed their fifth victim this weekend when Mr Patric Mehlomakhulu of Zola broke his neck after falling into one.

But the contractors say they are not to be blamed. They said the problem stems from people stealing warning signs and removing crossing planks. Once these were replaced they were again stolen.

Angry residents have accused the council and the board of negligence, and have said the two bodies are not doing enough to ensure safety. They have said unmarked trenches are extremely dangerous at night, especially to visi-

By LEN KALANE

tors and motorists from other areas.

Wrab's chief director, Mr C J Bezuidenhout, said residents should play their part by not removing the planks used as crossings over the trenches. He said Wrab had appointed a co-ordinator to see that the digging and the laying of cables were done at the same time.

"Our aim is to ensure safety and we try to take all the necessary precautions," Mr Bezuidenhout said.

Mr Malan said it appeared the ribbons put around excavations were being pulled down by some residents and vandals.



SOWETO TRENCHES: What they can do to motorists.

The PRO of the Greater Soweto Planning Council, Mr Reuben Gumede, said his or-

ganisation was planning a pamphlet campaign to warn people about the danger.

A HOUSE in Soweto has been standing empty almost eight months while two families are involved in a tug-of-war over it.

The house became a centre of controversy soon after its owner, Mrs Rebecca Mabasos, was killed in a fight with a member of the other family. Her husband also died.

According to a relative of Mrs Mabasos, Mrs Theresa Seboge, the other family claimed the house was theirs after the death of the owner. The family, the Mchunus, are staying in a shack inside the Mabasos' yard.

The Mchuni family have refused to move. They claim they have been paying rent for the place since Mrs Mabasos died.

Mrs Seboge said: "We told the family we no longer wanted them in the yard after Mrs Mabasos was killed in a fight with their daughter.

"They told us they won't move out because they are paying rent for the house.

"We asked another relative to look after the house but he left after being raided by police for staying there without a permit. Since then the house has been standing empty. The Mchunus family have told us to take out our relative's things so that they can move in."

Mrs Seboge said her family preferred the house to be allocated to any family on the waiting list other than the Mchunus. She said the Soweto Council promised to allocate the house to other people but this had not been

Nurses' college

A NEW R2,3-million nurses' training college with an enrolment of about 1 500 nurses was yesterday opened officially by the Administrator of the Transvaal, Mr Willem Cruywagen, at Baragwanath Hospital.

At a ceremony attended by about 200 people, Mr Cruywagen said the training of professional black nurses in South Africa started in 1903. Cecilia Makiwane and Mina Colani were the first two.

Since then, the numbers have increased to 2 100.

Soweto's top women

MRS MARINA Maponya, wife of Soweto businessman Mr Richard Maponya, yesterday snatched the 1982 Businesswoman of the Year Award at a banquet held at a Johannesburg club.

She was one of five finalists whose business turnover rated between R3-million and R80-million.

The jubilant Mrs Maponya could not hold back her tears as the announcer, author and former winner of the award, Mrs Margaret Lessing, read her biographical background.

Danger man hunt

POLICE are still looking for a heavily armed and dangerous man who was with another man killed when a handgrenade exploded near the Krugersdorp railway station last week.

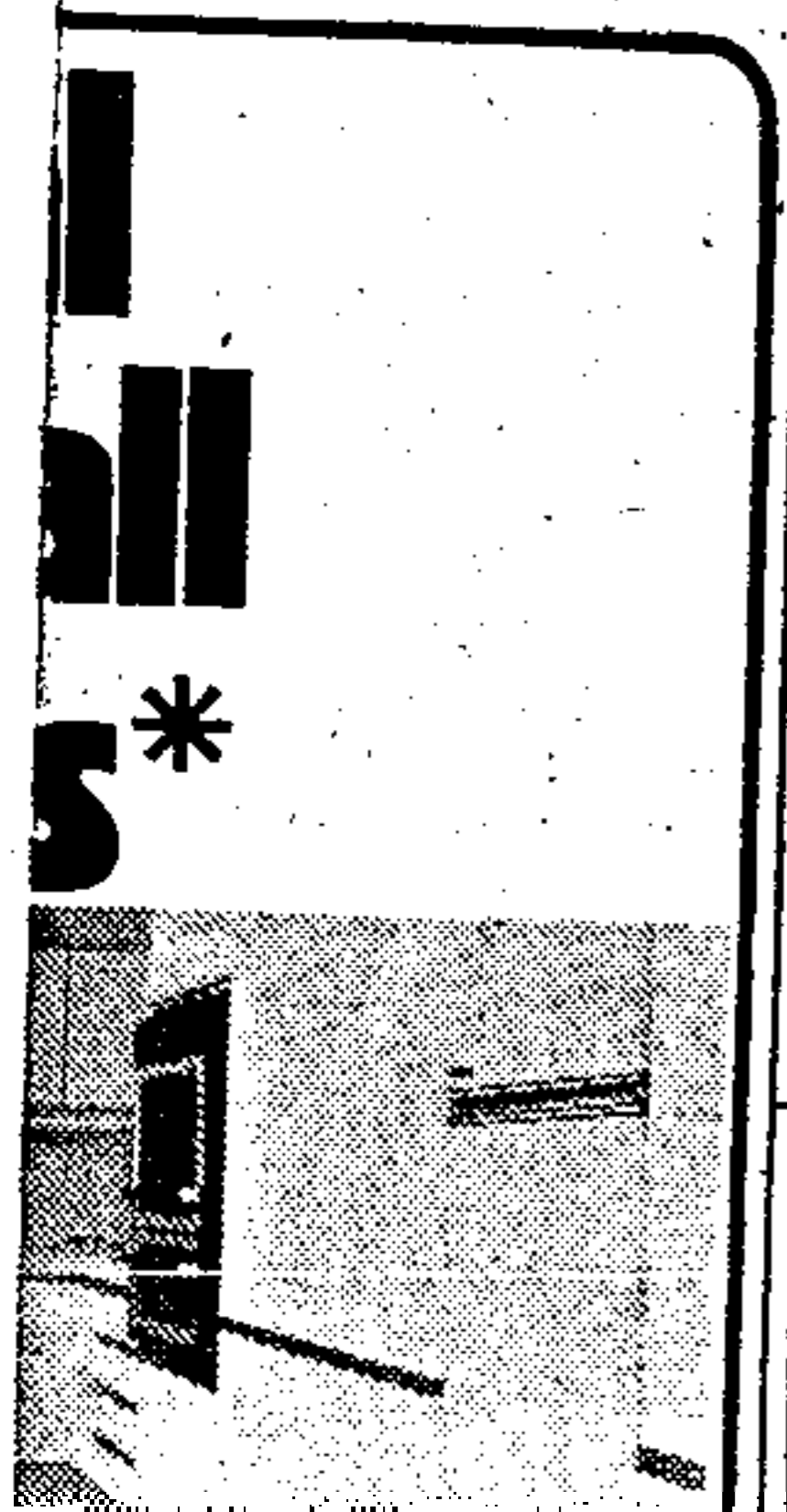
The SAR Public Relations Officer, Major Leon Els, told The SOWETAN yesterday police have not as yet identified the dead man.

The man died as a grenade he was about to hurl at railway policeman exploded in his hand when the police fired at him.

He apparently pulled out the pin of the grenade during a scuffle with police following the discovery in a corrugated-iron shed near the station of a parcel containing handgrenades, firearm magazines and

HAWKERS/AGENTS

Make money selling READY-TO-HANG kitchen and bathroom curtains. Made to fit all size windows.



setenville, (opposite South Rand Hospital) on Saturday, starting at 8am and going on all

... person and later reported the incident to the police.

August 30.

The new school, which is situated immediately south of the Johannesburg Hospital and is directly connected to it, will cater for about 2 000 students.

The most expensive building Wits University has ever erected, the new medical school is 10 stories high and will include facilities for para-medical and post-graduate students. At present, the medical school is situated in Hospital Street, Hillbrow, Johannesburg.

It is a very modern set of premises with the most sophisticated equipment needed to teach students, Mr M Y Dinath, the Medical School's principal administrative officer, said yesterday.

Mr Dinath said the move would start during the last week of October and continue through November to the middle week of December.

The opening celebrations — which will continue from August 28 to September 11 — will include:

- An exhibition of the history of the medical school and books published by past and present staff will be on from August 28 till September 4.
- Highlights of Wits medical research achievements;
- Student contributions to the academic life of Wits Medical School by medical students;
- A "Great Homecoming" cocktail party for past graduates and diplomats of the Wits medical faculty.

MATTER OF FACT

TO CORRECT specific errors of fact, write to the Editor at P O Box 1138, Johannesburg, or telephone the Editor's secretary at 710-9111 between 9am and 5pm on weekdays.

If you have broader complaints about the Rand Daily Mail these can be taken up with the Mail Ombudsman, James McClurg, c/o the Editor's secretary.

POLITICAL comment in this issue by R A Gibson, Peter Bunkell; newsbills by Mike Stent; headlines and sub-editing by Paul Holroyd; cartoons by David Anderson, Dave Gaskill; all of 171 Main Street, Johannesburg.

SA 'gets no oil through Chiavelli'

By GEOFFREY ALLEN

THE chairman of the quasi-Government oil exploration corporation, Soekor, yesterday apparently flew in the face of the law and a parliamentary statement made in March by the Minister of Mineral and Energy Affairs by discussing on the radio possible sources of the Republic's oil supplies.

Dr Dawid de Villiers said on an SABC programme there was too much secrecy surrounding the Republic's oil sources.

He also said emphatically that the Italian billionaire, Dr Marino Chiavelli, had never supplied South Africa with a drop of oil.

Yesterday he told the Rand Daily Mail that he was "not responsible for what I said" in the unprecedented statement.

But he repeated the statement and elaborated on it.

Then he said he hoped he was not saying anything contrary to the National Supplies Procurement Act which

forbids unauthorised statements on oil.

In March the former Minister of Mineral and Energy Affairs, Mr F W de Klerk, told Parliament that any comment on Dr Chiavelli's involvement in South Africa's oil supplies would be against the law.

He accused a Progressive Federal Party MP, who raised the subject, of misusing parliamentary privilege to break the law when he asked whether South Africa was one of the politically sensitive countries supplied with Saudi Arabian oil through Dr Chiavelli.

The question was asked after a Sunday newspaper reported Dr Chiavelli as saying he had made his billions by acting as a Saudi front man for oil supplies to politically sensitive countries.

Last night the PFP spokesman on energy affairs, Mr John Malcolmess, called on the Minister, Mr Pietie du Plessis, to clarify Dr De Villiers' statement.

The statement is unprecedented in recent times because the National Supplies Procurement Act stipulates: "No person shall publish in any newspaper, periodical, book, or pamphlet or by radio, television or any other means, information in relation to the source, manufacture, transportation, destination, storage, quantity or stock level of any petroleum products acquired or manufactured or being acquired or manufactured for or in the Republic."

In the radio programme Dr De Villiers was asked about the secrecy surrounding South Africa's oil sources.

● The interview went as follows:

Question: "The level of secrecy that's involved in the procurement of oil. Many people would say that the level of secrecy is far too high and in itself creates rumours. Isn't the whole thing self-defeating?"

Dr De Villiers: "Your last statement is correct. It does

create rumours. For instance Chiavelli is continually being mentioned as a person supplying oil to South Africa and he's never supplied oil to South Africa. Not at all, I can assure you."

Later Dr De Villiers said he had made the statement because he was in a position to know that Dr Chiavelli had not supplied "a drop of oil" to South Africa.

Mr John Malcolmess said, "It is possible Mr Chiavelli did not supply oil in that he holds himself up as an agent or front man of sorts, but the question is whether the secrecy surrounding oil supplies are in the interests of the country or the National Party."

"I believe if this statement was made by Dr De Villiers the Minister responsible must explain to us why he said it."

Neither the former nor present Minister of Energy Affairs was available for comment yesterday.

Yachts to take adverts on sails

London Bureau

LONDON. — For the first time in 107 years, The Royal Yachting Association, the governing body on racing, is to allow some craft to carry advertisements on their sails.

As an experiment it was agreed to relax yachting rule 26, which forbids advertisements on sails or hulls, for the World Sailing Speed Record Week held off Weymouth from October 9.

The decision of the 20-strong international committee, was unanimous," said Sir Reginald Bennett.

Sir Reginald, the chairman of the RYA's speed week committee, said "We did not take this important step lightly, but we felt that as this event was not strictly yacht racing we could relax the rule.

"It is only for this year and it will be carefully watched."

Maize controls will remain — Minister

Pretoria Bureau

THE lifting of controls in the maize industry was unacceptable, the Minister of Agriculture, Mr J J G Wentzel, said in a statement in Pretoria last night.

In a sharp response to an agricultural report on the maize industry published earlier this week, the Minister stated: "I'm not prepared to lead the mealie industry back into the chaos in which it was placed before the Marketing Act was passed in 1937."

The report, by Assocom, had recommended the freeing of the industry from controls.

It also recommended the lifting of restrictions on the importation of maize, withdrawal of the regulatory powers of the Maize Board and dropping of restrictions

on the sale of the crop.

Mr Wentzel said last night the mealie industry had grown under the Marketing Act into the important industry it was today.

The growth value of the crop during 1980/81 ran to R1 700-million. Mealies worth R640-million were exported and earned South Africa valuable foreign currency.

Any disturbing of the industry could have a disruptive influence on the rest of the economy, he said.

However, Mr Wentzel said the time had apparently come to look again at the marketing regulations for mealies.

He said he had instructed the National Marketing Council to investigate the present control regulations on mealies, including the price fixing method.

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We make it

for

A WOMAN accused of murdering her husband offered yesterday to pay up to R50 000 bail to show her willingness to stand trial. Mrs Maureen Catherine Smith, 38, of Meadow, Kelvin, Sandton, appeared before Mr P F du Plessis in the Johannesburg Magistrate's Court in a second application for bail. Mr Du Plessis had rejected her first application 17 days ago.

Man dies in roller accident. A MAN was killed in a freak accident yesterday when he tripped over a stone and fell in front of an oncoming steamroller. The man, in his 30s, sustained

as Rene takes control bid

(55) (218) RNM 10/8/82

'Cabora power lines to SA cut'

LISBON. — The power lines supplying South Africa with electricity from Mozambique have been cut by guerrillas fighting the government of President Samora Machel, a guerrilla spokesman said in Lisbon yesterday.

Mr Evo Fernandes, spokesman of the Mozambique National Resistance Movement (RNM), said guerrillas blew up four relay stations last Friday near Sussudenga, near the border of Zimbabwe.

He said RNM forces, in another operation last Friday, sabotaged pylons carrying electricity to Beira, cutting off all power and water to the country's major industrial centre.

The attacks are the latest in a long

series of guerrilla raids on the power lines, which can, in theory, provide South Africa with 10% of its electricity needs. Portugal depends on revenue from power exports to South Africa to pay interest and principal on R690-million of outstanding loans used to build the dam.

In Johannesburg, an Escom spokesman confirmed that there had been no power since August 11. The Mozambique authorities had given no reason for the power failure and it was not known when supplies would be resumed.

In Maputo yesterday Mozambique's national news agency, Aim, reported that Mozambican troops killed 30 guerrillas and destroyed seven RNM bases in

the first half of this month.

In the first official indication of a stepped-up campaign against the guerrillas, military authorities said 15 insurgents were killed in one encounter last Saturday. Several rebels were wounded in the operation, in the Sumbulane district of Gaza province.

Aim said troops destroyed bases in the central and southern provinces of Gaza, Inhambane, Manica and Sofala. There had been three other clashes in Gaza, including an attack on an RNM camp at Bala Bala, 30km from the Limpopo agro-industrial complex at Chokwe.

Security sources said an RNM command post was overrun in Manica province and 59 peasants kidnapped by the RNM were freed. — Sapa-Reuter-AP.

Angolan rebels ⁴⁸ ^{Mercury} 'severed power ⁵⁵ ^{20/8/82} lines to S A' claim

LISBON—The power lines supplying South Africa with electricity from Mozambique were cut by rebels fighting the Government of President Samora Machel, a rebel spokesman said here yesterday.

Mr Evo Fernandes, spokesman of the Mozambique National Resistance Movement said rebels blew up four relay stations last Friday near Sussudenga in a Mozambique province bordering Zimbabwe.

Two days ago the spokesman said resistance forces, in another operation last Friday, sabotaged pylons carrying electricity to Beira, cutting off all power and water to the country's major industrial centre.

The attacks are the lat-

est in a long series of raids on the power lines.

The lines had been down since December 1981 when they were last repaired in June, shortly before the Portuguese Prime Minister, Mr Francisco Pinto Balsemao, visited the giant Cabora Bassa dam which provides the electricity.

Portugal depends on revenue from power exports to South Africa to pay interest and principal on R690 million of outstanding loans used to build the dam. When the lines are down it has to use Treasury funds.

In Johannesburg, an Escom spokesman said the power lines had been cut, but he did not know if this was because of rebel action. — (Sapa-Reuter-AP)

Pretoria Bureau

The Minister of Energy Affairs, Mr P T C du Plessis, has issued a stern statement, stressing that it is essential that legislation to protect South Africa's oil sources be obeyed.

Yesterday's warning from Pretoria came in the wake of an incident in which the chairman of Soekor, Dr D P

20/8/82 (55)
Govt frowns on verbal oil leaks *Star*

de Villiers, told radio listeners Italian millionaire, Dr Marino Chiavelli, had never supplied South Africa with oil.

Dr de Villiers further asserted that too much

secrecy surrounded South Africa's oil supplies.

It is an offence in terms of the National Supplies Procurement Act to divulge to the public any information

on the source, manufacture, transportation, destination, storage, quantity or stock level of any petroleum acquired by or manufactured in South Africa.

Mr du Plessis declined to comment on Dr de Villiers's "personal" views but stressed confidentially on oil supplies should be rigorously observed.

Lights may go on in Mohlakeng township

24/8/82
Sowetan
55
24/8

By LEN KALANE

THE Department of Co-operation and Development may approve the electrification of Mohlakeng township on the West Rand after studying financial implications of the scheme.

It has been estimated that it would cost R8-million to electrify every house in the township.

Department officials still need to calculate the basic cost to each permit holder once the houses have been electrified.

Once the financial aspects have been worked out, the local community council will be advised in two weeks' time, according to the chairman, Mr Alfred

Tekwane.

The news follows a trip to Pretoria last week when three members of the Mohlakeng Council consulted officials in the department about electrifying Mohlakeng.

Mr Tekwane and two other councillors, Mr

Arthur Sepanya and Mr A S Matsitse, undertook the Pretoria trip to convince authorities that residents wanted electricity.

Mr Tekwane said he would hold a report-back meeting on Sunday at the local Ramosa Hall at 9am.

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Another R8-m needed for Soweto lights

55 343
Sowetan

27/8/82
THE SOWETO Council is faced with the enormous task of raising R8-million to save its R204-million electrification project.

Contractors had initially asked the council to raise R14-million to allow full completion of the project, but the figure was later brought down to R8-million after consultations with the West Rand Administra-

tion Board.

Mr David Thebali yesterday told a monthly council meeting that the R204-million originally budgeted for the project was not sufficient to meet the escalating costs.

The project is due for completion some time next year.

"The contractors had wanted R14-million but our electricity director discovered their report had miscalculations and had included areas not included when the project was approved," Mr Thebehali said.

According to a report from the consultants, the increased costs of the project would cost the Soweto residents an estimated additional R1,60 per household per month. However, it was not specified whether this would be levied on residents after the project was completed.

The council was told 7 647 houses had been electrified over the past two months, bringing the total number of electrified houses to 53 701.

THREE PEOPLE — among them were killed, and two others suffered home caught fire in the early hours spruit this week.

Neighbours, who had been awoken by a series of explosions, stood helplessly as the fire raged and the people in the house screamed for help.

The owner of the house, Mr Charlie Ngwenya, and his daughter, Sibongile, were rescued earlier, and were rushed to the Natal-spruit Hospital, where they were said to be in a "serious" condition by neighbours.

Those who died in the blaze were Mrs Ntombiyembi Ngwenya (60) and her 13-year-old granddaughter, Rena, and Mr Rennie Ngwenya (36).

The fire started at the Skhosana Section house on Wednesday morning at about 4am. Nobody seems to know exactly how the fire started. Mrs Beauty Ngwenya, who was sleeping in a backyard shack, said that six people had been in the house when the fire started.

She said she had heard a series of explosions, followed by the shattering of windows. She had jumped out of bed and gone to investi-

gate. "As I went to the shack, I met Peter, who had been sleeping in a shack. We tried to open the door of the house, but finally used an axe to break it down."

Said Peter: "I ran into the house and stumbled on Rena lying in the kitchen. Her face was scorched and his mouth open. She was dead. I was terrified by the fire and pulled him over my shoulder and dashed for a bucket of water and rushed into the house to extinguish the fire."



GET your week off to a great start on Monday — with The SOWETAN. There's everything for YOU, the woman who cares, in The SOWETAN. Read about women who have made it to the top.

Our recipe theme next week will simply bowl you over — and your husband will love you for it. And, for soccer fans, watch out for full reports of the Mainstay Cup games.

And if you miss The SOWETAN on Monday, don't be surprised that your friends know better than you do.

Seco drive

A SECOND Soweto driver died at Butha Buthe Hospital following an assault last week's taxi war.

Mr Jimmy Moloi, an operator on the Merafe station town route, was one of 16 people taken to hospital after they were injured in the taxi-war that started last week.

CHICKEN LICKEN SOCCERPOOL

Win R900 — P 3

NEWS

Isando men have all gone fission

31/8/82 55 Industrial Week

By Wren Mast-Ingle

QUIETLY operating in the heart of Isando is one of the world's largest gamma-radiation processing plants.

The plant owned by Iso-ster provides radiation sterilisation of medical and related products, modification of plastics and radiation synthesis of polymer composites.

It has a potential capacity of 6 million cures of Cobalt-60.

Sterilisation

Clive Stevens, a researcher at Iso-ster told Industrial Week that the company was formed about two years ago to provide a sterilisation process

which could offer an alternative to steam and CSO which have inherent drawbacks.

"About 80% of all pharmaceutical products in SA requiring sterilisation are processed here," he said.

"The site for Iso-ster was chosen so that the service would be in the heart of the Witwatersrand and a very modern system was installed.

"With a carrier-type irradiator, products are processed in large carriers allowing for greater flexibility and the ability to handle a variety of container sizes."

Stevens added that the plant leads the world in a

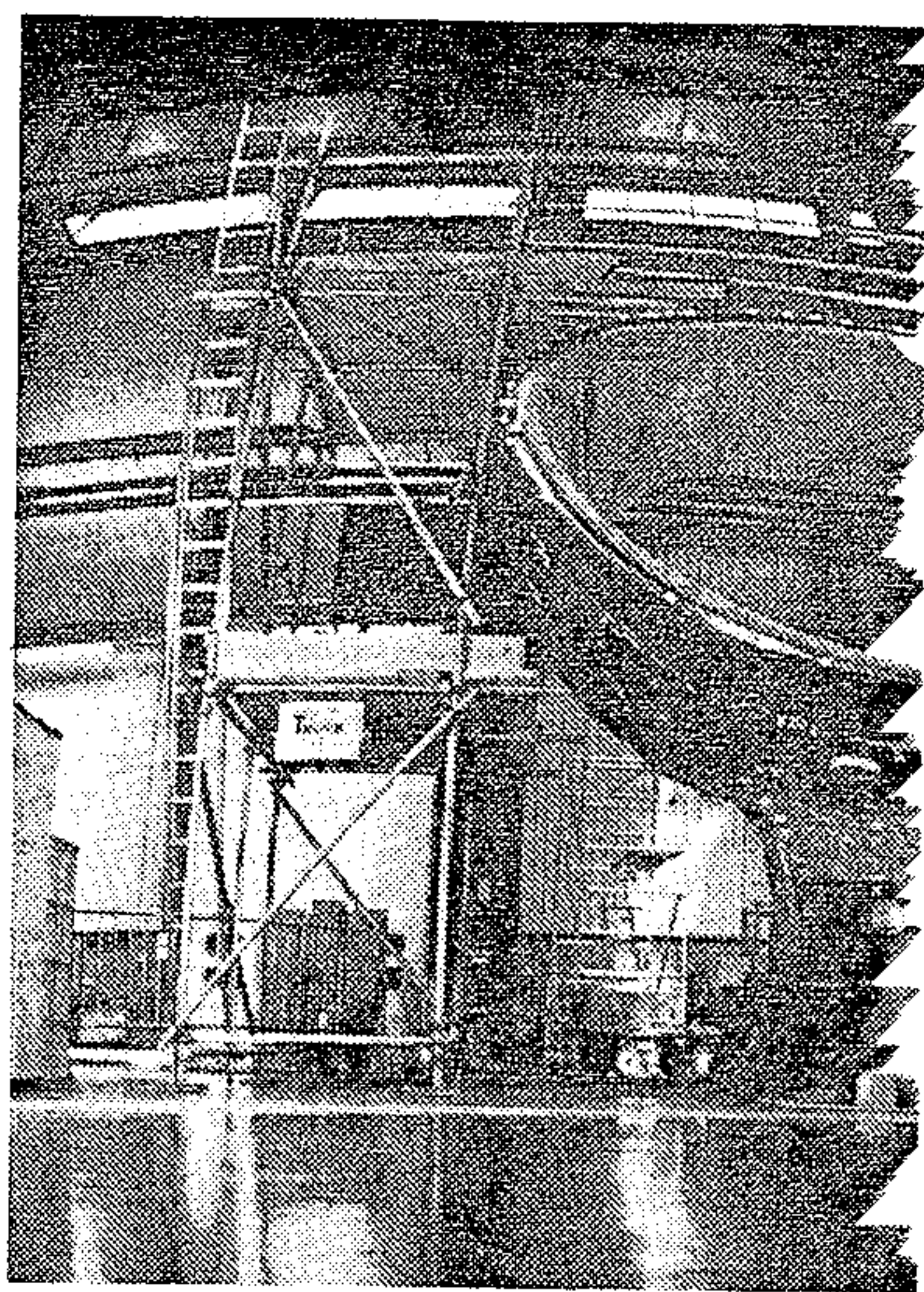
number of technological and development aspects. SA's relative isolation in this field has forced Iso-ster to tackle a wide range of activities and this has given the company invaluable experience in certain fields of irradiation.

Protection

It takes only seven people to run the plant on a 24-hour shift and extensive measures have been taken to protect employees, visitors and the environment.

Further radiation monitoring systems have been installed to duplicate all radiations safety monitoring systems.

Nuclear Jet under



Push for increased production in

THE Cape Chamber of Industries is to form a special productivity committee to assist its members and improve their productivity, writes Hugh Poulter.

The new committee, will have a practical industrial bias and not be classed as a sub-committee of the Chamber's Executive Council, although it will keep the Council inform-

ed of its activities. The regional manager of the National Productivity Institute will serve on the committee to provide professional guidance.

The productivity committee will help make member-firms aware of the benefits of improved productivity and advise them on means of improving output.

It will also investigate

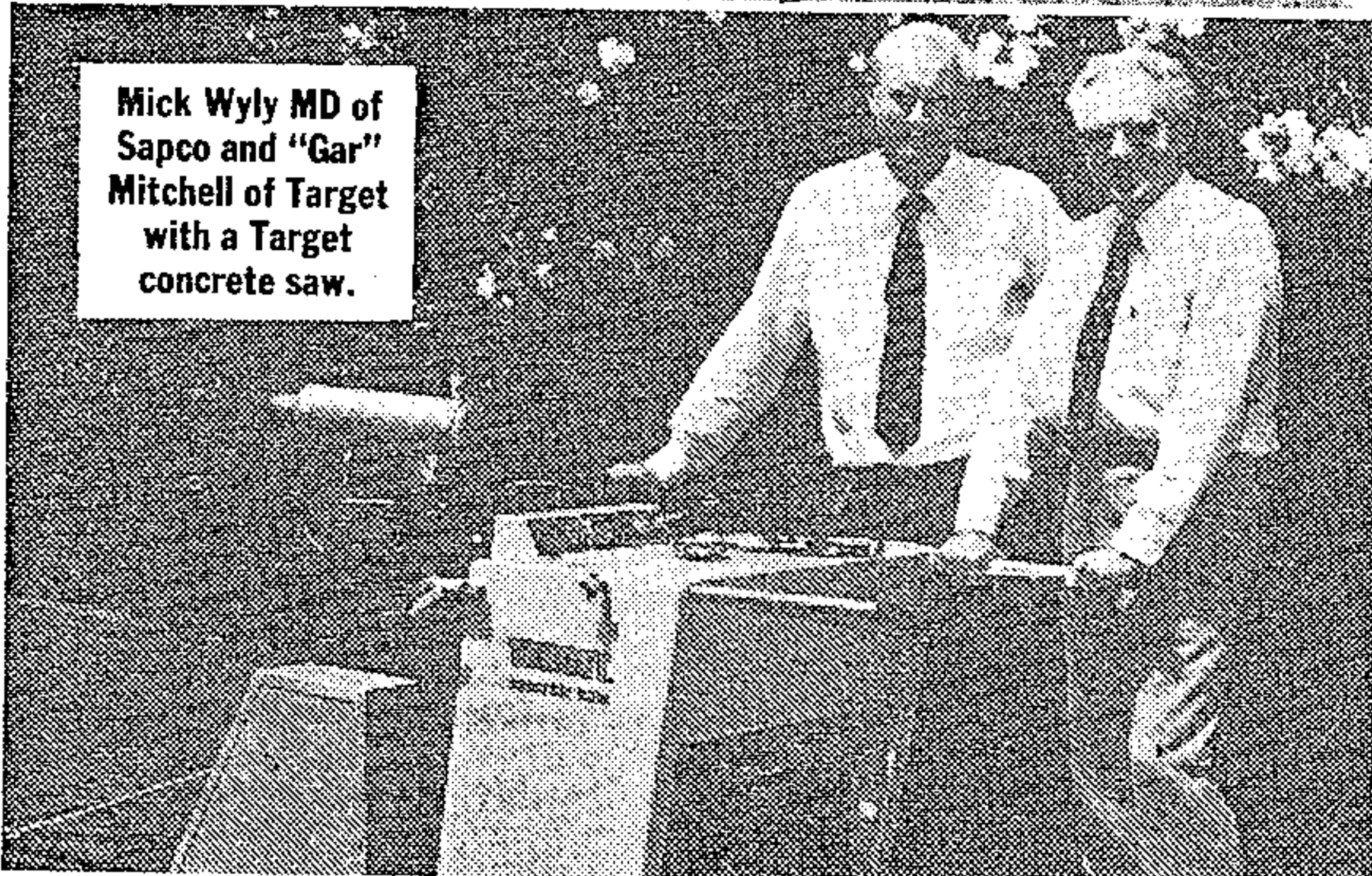
Liberty Life order

The Liberty Life Centre in Johannesburg, which houses all the head office operations of the Liberty Life group, has been equipped with a new R1-million, five-console digital electronic PABX system.

The DCS10 system, which has an ultimate capacity of 7 000 lines was manufactured by AEI Henley, a GECSA group company, and installed and commissioned by them in less than eight weeks.

MD confident of success

Mick Wyly MD of Sapco and "Gar" Mitchell of Target with a Target concrete saw.



A GOOD company can do well during times of recession, says Mick Wyly MD of Sapco.

Speaking from the Sapco stand at Interbou '82, Wyly said that firms should aim to increase its market share at the expense of competitors and uses the recession as a breathing space to plan future expansion.

"Some people get weak at the knees at the first mention of the word recession

ing good people and pulling out of important exhibitions where their competitors have aggressive displays."

Wyly said that Sapco had spent more money on their Interbou stand than ever before and they had no thoughts of pulling out of the exhibition.

Sapco displayed equipment on two stands at the Milner Park showgrounds. The stands were made of small concrete

SERVICE IN THE FOUNTAIN



Row brews over oil (55) statements

RDM 4/9/82
Political Reporter

THE chairman of Sasol and Soekor, Dr Dawid de Villiers, yesterday claimed the legal right to comment on South Africa's oil procurement — in spite of a statement last month by the Minister of Mineral and Energy Affairs, Mr Pietie du Plessis, that "the laws concerning the acquisition of crude oil should be complied with".

Speaking in Durban Dr De Villiers said under the exemption clause of the National Supplies Procurement Act he and his colleagues were empowered to release information concerning oil supplies.

It was sometimes necessary to deny "untrue reports" when they posed a danger to the interests of SA's oil situation, he said.

His comments were seen as a reference to Mr Du Plessis' statement last month concerning a radio interview by Dr De Villiers in which he denied that Dr Marino Chiavelli had ever supplied oil to South Africa.

Mr Du Plessis could not be contacted for comment last night.

Concern is growing about the rise in the volume of nuclear waste discharged at sea, 90 percent of which comes from Britain. Yet the material dropped on to the seabed is only a fraction of one percent of the nuclear waste that is accumulating.

Furthermore, it is classed officially as low-level waste, to distinguish it from the more hazardous stocks of intermediate level and high level wastes for which methods of disposal have yet to be found.

One reason behind the recent protest by the Greenpeace organisation is its claim that the British and other governments are seeking changes to the international treaty under which ocean dumping occurs, to allow disposal at sea of intermediate and high level wastes.

The United Kingdom Atomic Energy Authority's (UKAEA) laboratory at Harwell, near Didcot, organises the disposal at sea from a converted freighter *The Gem*. The rubbish from generating stations, nuclear fuel fabrication plants, research laboratories and industry, is compressed into drums and sent by rail from Didcot to docks at Sharpness, Gloucestershire.

The volume of low level waste discharged

Doubts grow over atomic waste

Pearce Wright, science editor of *The Times*, discusses the complicated and technical difficulties of handling or disposing of nuclear materials.

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Stw 6/9/82

at sea by the UKAEA has certainly soared since the first test dropped in 1949 with a one hundredweight container holding one curie of radioactive material.

It is the level of radioactivity rather than the volume of material which is the key factor; and the level rose from 3.5 curies in 1950 to 279 curies in 1960. With the rapid development of the weapons and nuclear power programmes, dumping increased to 20 450 curies in 1970, over 100 000 curies in 1980 and 107 250 curies this year.

But the level of radioactivity is only one factor in the calculation of cancer risk. Some nuclear materials are 1 000 times more dangerous than others.

To calculate the risk the International Com-

mission for Radiological Protection has devised a scale of radio-toxicity. It shows, for example, that inhaling strontium 90 is about seven times more dangerous than inhaling the same level of iodine 129 and plutonium 239 is 20 000 times more hazardous again.

These variations are due to the way the body retains some substances and rejects others and to the physiological effect of the particular types of radiation.

The overriding factor governing the storage or disposal of waste is that radiation has only one biological property: it destroys.

Moreover, there is no known safe level. The recommended safety limits issued by the International Commission for Radiological Protec-

tion for industrial workers come from laboratory research with animals, the results of continuing studies of the victims of the Hiroshima and Nagasaki bombs, and information from the use of radiation for medicinal purposes.

But there are complicated technical difficulties of handling or disposing of nuclear materials for several reasons.

First, wastes arise as gases, liquids and solids. Second, the danger to health and the necessary protection methods differ depending on whether the radioactivity lasts for a few days or lasts thousands of years. Third, the nature of the damage is determined by whether the substance is a bone-seeker, and hence gets embedded in bone marrow, or fo-

cuses on another target organ like the gonads, ovaries, lung, liver, kidneys or brain.

The main source of wastes are nuclear fuel manufacturing for power station and weapons, waste reprocessing and decommissioning of nuclear plant.

No commercial power station has yet been dismantled; it will be 10 years before the first stations built in Britain are scheduled for decommissioning. Then, the reactors will be encased in concrete for 100 years to allow the radioactive contamination to decay until dismantling can be considered.

The residue from one year's operation of a nuclear power station, including that produced in fuel manufacturing and spent fuel reprocessing operations, is about 2 000 cubic metres of low level waste, 100 cubic metres of intermediate level waste and two cubic metres of high level waste.

However, successive British Government reports assert that there is no scientific obstacle to highly active waste disposal.

Ciskei strikes

oil

Education Reporter

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498
RDM
2/9/82

A GROUP of scientists at the University of Fort Hare in the Ciskei have struck oil... with a delicately scented bush which grows high in the Drakensberg mountains.

The university's agronomy department has succeeded in cultivating the bush and extracting its aromatic oil, a technique which could be the start of a new industry in the Ciskei.

According to Professor E Graven, head of the department and the leader of the university's Ciskei Essential Oil project (Centoil), few wild snowbushes remain because of French demand for the oil and indiscriminate harvesting.

"We selected specific plants in the Drakensberg, have developed methods of propagating them and are now experimentally growing the snowbush as a conventional field crop under arable conditions," he said.

Fort Hare, with the Ciskei Department of Agriculture and the Agricultural and Rural Development Research Institute, is now expanding the crop area and will soon test it as a substitute for the meagre crops grown in the steeply sloping fields high in the Amatola Mountains.

55 (24/8) Staw

Electricity 'rip-off'

Soweto residents who installed their own electricity before the electrification project began must pay R510 in cash if they want to switch on, according to a Soweto Council official.

Responding to complaints by irate residents who said the R510 was a "rip-off," Mr J J Oosthuizen, Soweto Council housing chief, said the fee was for the laying of the cable. Of this, R30 was a deposit "to secure the use of the electricity," and this was refundable when a resident moved.

Union leader fired — claim

55
~~200~~
11/9/82
C. Times

Labour Reporter

A TRADE union leader who was investigating nuclear safety for workers at the Koeberg power plant has been fired, his union claims.

Mr Brian Williams, Western Cape branch chairman of the Electrical and Allied Trade Union of SA, was dismissed last week after almost a year's service as an electrical inspector with the Nuclear Electrical Contractor (NEC) at Koeberg.

But the NEC site manager, Mr F Rivoire, said Mr Williams was not dismissed but had been retrenched along with a number of other workers. He promised to issue an official statement on Monday.

A union spokesman said yesterday workers at the plant were unhappy with the dismissal because Mr Williams was a "consistent, conscientious and resourceful worker".

He was a dedicated trade unionist and had been involved in investigating safety conditions at the plant on behalf of the workers.

The workers rejected outright the "ridiculous reasons" put forward by management for the dismissal — that he was unproductive and inefficient.

New Midrand electricity tariffs shock residents

(95) stan 13/9/82

Municipal Reporter

Midrand residents are indignant about new electricity tariffs which pushed up some bills by more than 300 percent.

The town council has increased the basic unit charge to households by 242 percent, and to business premises by 336 percent.

Previously residents of Midrand, which takes in the Kyalami, Halfway House and Olifantsfontein triangle, paid 3,82c a unit plus a monthly basic service charge of R11,10 for households and R22,20 for business premises.

The unit cost for households has now been pegged at 8,04c and for businesses it is

11,13c. The basic service charge levy has been abolished.

Mr Allan Menton of Olifantsfontein said a household using 1500 units would now pay more than R120 a month compared with a previous tariff of R61.

He said a shopowner in the area had paid R163 last month, but his account this month was R601.

"I don't think there is anyone in the country who pays more than 4c a unit. These increases will force many elderly residents out of the area," said Mr Menton.

Midrand's management committee chairman, Mr Martin

Grond, conceded that the new electricity structure would increase the average consumer's monthly bill. The town council had estimated that the increase would be between 25 and 30 percent.

"Even if we had not restructured the tariff, we would still have had to put up the unit cost because of Eskom increases."

Mr Grond said his town council had been advised by the province to introduce the new electricity tariff because Midrand's service accounts — electricity, water and sewerage — were being run at a loss.

"The province insists

that these services must be self-supporting and not subsidised, as in the past, by our rates accounts," Mr Grond said.

While conceding that monthly consumption would be more costly, Mr Grond believed savings could be made if residents were sparing in their use of electricity.

He said the council had felt it unfair that householders, particularly the aged, had been forced to pay a basic service charge before using a single unit of electricity.

While the basic unit cost had increased the monthly levy had been abolished and would help to absorb increases in the monthly bill, Mr Grond said.

Koeberg good case for cheaper power

Municipal Reporter

The erection of the Koeberg nuclear power station on Cape Town's doorstep provides the city with a good case for a favourable Escom electricity tariff, the chairman of the City Council's utilities and works committee, Mr Len Kendal, said this week.

And a better tariff would make Cape Town far more competitive in its quest for new industries.

Mr Kendal, with eight years' experience on the council, has been elected to the new-look executive and given the utilities and works portfolio.

He said Cape Town was barred by law from building its own new power stations — which meant it would have to rely more heavily on Escom in future.

LONG DISTANCE

"We have always paid a much higher tariff for power because it comes from the Transvaal and it has been our main stumbling block in attracting industries to the Western Cape.

"Now that Koeberg is on our doorstep there is

no reason why we should not benefit from it and obtain our electricity at a preferential tariff."

He sympathised with those people who feared having a nuclear installation so close to the city.

RADIATION

"We will do our best to see that it does not have any harmful effect on the city. We will have our own monitors under our control which will ensure that radiation levels will be kept far below acceptable limits."

The council was also represented on Koeberg's safety committee and would keep a sharp eye on developments.

He is a great believer in Cape Town's economic potential because of its first-class labour force and healthy infrastructure.

He believes the main reason why Cape Town has suffered less than the Vaal Triangle in the present economic recession is the fact that blacks' wages in the city have risen 100 percent in the past two years, creating a healthy and stable economy.

He said the council was committed to revitalising the city's central business district (CBD).

LESS PARKING

One of the effects of this policy would be that less and less parking in the CBD would be available to all-day parkers.

In future parking will be provided on the peripheries of the city. Parking in the CBD will be of short duration for the benefit of shoppers and those wanting to conduct business.



Mr Len Kendal.

Koeberg training questioned

19/9/82
C. Times

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200
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Labour Reporter

THE local branch of the Electrical and Allied Trade Union of SA has questioned the safety training of unskilled workers at the Koeberg power station.

The statement follows the alleged sacking of the union's local chairman, Mr Brian Williams, by the French Nuclear Energy Contractor (NEC). Mr Williams was one of several workers investigating the hazards of nuclear exposure for workers at the plant.

The union queried whether the thousands of women doing cleaning work were properly trained in safety procedures in the event of a fault occurring in reactor number one, which would become operational while they were still on the site.

A spokesman for the Electricity Supply Commission (Escom) said all Escom staff working at the Koeberg power station went through "appropriate safety courses".

However, the radiation course was restricted to workers who worked in or near nuclear radiation. The spokesman said he could not speak on behalf of contractors at the plant, "but I would imagine that when Escom signs contracts they insist that the contractor complies with certain safety standards".

The spokesman emphasized Escom's concern for industrial safety and said

figures showed their safety record was "far better" than the national average.

The NEC site manager, Mr F Rivoire, has declined to comment and workers at the plant say that since Mr Williams's dismissal, notices have been sent around warning them not to divulge any information to "outside or third parties".

The union statement argues that the cost of properly training the thousands of unskilled workers and the fact that it might hold up the programme could count against their being trained.

"We are merely asking what training they are getting, whether it is adequate and, if not, why not?"

'Secrecy'

Professor Arnold Abromowitz, acting-chairman of Koeberg Alert, said that if Mr Williams had been dismissed because of attempts to find out more about worker safety at Koeberg, it was another instance of the obsessional need for secrecy found in the nuclear industry.

"As long as the reactor is operational, and particularly when fuel is brought in, there is a hazard for all on the site. The simple question Mr Williams was asking is whether the workers are receiving correct instruction in how to deal with such a situation."

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POWER OVER RIM

16/9/87

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[Handwritten initials]

D. Pinkster

EAST LONDON — More than a million rands is now owed to electricity consumers here by the government.

Renewed confusion has also arisen over the Decentralisation Board's electricity subsidy following a letter sent to local authorities by the board.

The city treasurer here, Mr J. Howell, yesterday described the situation as "most unsatisfactory".

He said the letter, the contents of which are confidential, did not seem to add up to what we were led to believe.

Mr Howell said the municipality was also sent a certificate to fill in which was also confusing.

The Town Clerk of King William's Town, Mr Henry Hutten, said he had also received the letter, the details of which, he said, "don't tie in with what we were told."

King William's Town has been paying consumers in the town a subsidy based on a formula reached after discussions with the Decentralisation Board. Since May, the town

has been paying R60 000 a month out of its own funds while waiting for reimbursement from the government. The Borough Council has now paid about R300 000 in subsidies and has still not been repaid.

While East London has not been paying consumers, it is estimated that

**By
CHRIS
VICK**

the amount owing to consumers here in back payments is now over a million rands.

Efforts by both East London and King William's Town, as well as the Daily Dispatch, to obtain clarity on the matter from the Decentralisation Board were not successful yesterday.

Mr Hutten said he would be telephoning the board again today in an attempt to get an explanation on the details

of the letter and on when payment of the subsidy could be expected.

The electricity subsidy announced by the government in its regional decentralisation plan is intended to equalise the tariff paid by consumers here to that paid by consumers in the Eastern Transvaal.

The subsidy has to be passed on to all consumers within the municipal area of a designated industry, growth point and became effective on April 1.

Thus all electricity accounts in East London and King William's Town from May must be subsidised to the Eastern Transvaal tariff rates which are about 20 per cent lower than the Escom tariffs here.

It is still not clear either if the government will pay the back payments in one sum or spread it over a number of months, or if any interest will be paid on the late payments. — DDR

- a) where.....
- b) to whom
- c) for what additional area.....
- d) has this been granted.....
- e) if so, when.....

Mac's cool customers start a heated row

55 Star 16/9/82

By June Bearzi
Star Line

Angry consumers in Johannesburg and on the Reef say they have been paying an all-time high price this year for what they believed was anthracite — only to find they had bought low quality coal which smoked, clogged stoves and heaters and emitted little warmth.

Macphail Ltd, which has a monopoly of domestic coal supplies in these areas, reacted to consumer dissatisfaction by saying householders would have to dig deeper into their pockets if they wanted better quality.

Triton Energy, which trades as Macphails, has come under fire from householders, the supplier of a well-known anthracite heater and a Johannesburg chimney sweep, all of whom claim that the fuel being sold is the worst they can remember.

USELESS

Some say they have paid for a large percentage of useless coal dust and stones in the bags. A woman said she had two full bags of dust and another householder said he estimated he had lost about R50 because of the waste in his coal.

Many Soweto residents have had to pay for modifications to their anthracite stoves to burn the poor quality coal they are getting.

Dozens of other householders say they had to pay for repairmen to call to inspect heaters which they believed were faulty only to discover that the fuel was causing the problem.

Some put their heaters out in the middle of winter and reverted to electricity because of their frustration with the poor quality coal which gave



This handful of reddish stones made up part of a quantity which was found after a householder had burnt a bag of anthracite.

Anthracite and coal —how do they differ?

Here is a guide to the difference between anthracite and low grades of coal:

Coal is classified by rank, with anthracite the highest and sub-bituminous coal and lignite at the bottom of the ladder. The lower the volatile (gaseous) matter in coal the better is the fuel. Fuels with a high percentage of volatile matter will give off a great deal of smoke, as under combustion these volatiles or gases escape as black smoke.

Anthracite, which emits an intense heat and very little smoke under combustion, has a volatile rating of between one and 10 percent, lean coal rates between 10 and 20 percent, and the rate for bituminous coal varies from 20 to 30 percent.

off little heat and blackened walls, curtains and furniture.

Mr Peter Jagger, a chimney sweep, and Mr K F Godwin, an anthracite heater retailer, are anxious about the

situation as they believe it reflects on their products and workmanship.

Mr Jagger told Star Line: "It is so bad that I have to carry two jars of ash — one of

anthracite and the other of poor quality coal — to show my clients what type of ash to expect if they have good fuel."

Consumer dissatisfaction began when Macphails insisted that customers had to take delivery of 10 bags of anthracite amounting to 70 kg at a time. When many discovered the quality was extremely poor they were furious.

Complaints streamed in to Star Line from consumers who thought they had bought anthracite, a smokeless clean-burning fuel which gives off intense heat and a small amount of ash.

They complained that:

Several experts told Star Line that the fuel sold could not be anthracite and all agreed it was low-grade coal. Tests conducted by a Johannesburg laboratory established that one woman had paid for three bags of anthracite but two of the bags contained poor quality coal.

Mr Cyprian Msibi, of Soweto, said he had to repaint his soot-blackened ceiling five times this year and pay R100 to have his new anthracite stove converted to burn the low quality fuel he had been given.

CONVERTED

Mr Msibi told Star Line: "Many people in my area first thought their smokeless stoves were faulty. But, when they found it was the fuel, it cost them a lot of money to get them converted to burn this smoking coal."

A Greenside resident said she was at her wits end with the problems she had with the fuel she had bought for her anthracite heater this year.

"In the 22 years that I've used this heater I've never had so much trouble and such a mess. My grate was constantly jammed with large red stones and chunks of slate and the heat was so

MUST enter in each question in which it has columns (2) and

poor I had to buy an electric heater. In disgust I let the heater go out before the end of winter."

Mr P Artlas, of Yeoville, claimed: "I have a big box of coal dust and plenty of stones which came in the bags."

He said he had cracked the glass in his heater three times in efforts to remove the black left on it each day.

Mrs C Lee of Springs said she too had a problem with smoke and had to use a scouring powder and a hard pot scourer to remove the black substance from the window of her heater.

SORTING

A technical expert from the Transvaal Coal Owners' Association said anthracite and coal should not have large stones and pieces of slate in them.

"This shows incompetence on the part of those who are sorting the coal — they're apparently taking shortcuts to get as much as possible on the market regardless of quality," he said.

Mr Paul McNaughton, MacPhails marketing manager, admitted to Star Line that there had been a great deal of consumer dissatisfaction this year.

"Because of this we've decided to put up the price and supply local consumers with export quality anthracite," he said.

He claimed that a Natal coal mine was responsible for offloading large quantities of extremely poor-quality coal on the market.

He maintained that problems often arose, especially in Soweto, because MacPhails' deliverymen were taking good quality coal and anthracite out of bags and replacing it with inferior quality coal.

He said the colour twines indicating bags of anthracite and bags of coal often became mixed up so a consumer might get a bag marked anthracite which was, in fact, coal.

R200 electric shock

Municipal Reporter
More than 200 Midrand residents last night agreed to ask the Administrator of the Transvaal to investigate why charges for basic services in their town were among the highest in the country.

They gave the chairmen of their local ratepayers' associations a mandate to meet the town council and to report back on the outcome of their discussions within a fortnight.

The residents also agreed that if the town council could not offer reasonable explanations or solutions to overcome crippling costs for electricity, water, refuse removal and sewerage, the Administrator should be asked

Midrand demands rates investigation

to investigate Midrand's financial position.

Residents from suburbs throughout Midrand attended the annual general meeting of the Halfway House Ratepayers' Association to voice their discontent at new tariff structures which have sent many bills for electricity and water soaring by more than 300 percent.

A number of people said their electricity bills exceeded R200 a month, but their protests paled into insignificance when another resident declared that he had been asked R5 000 for one month's water consumption.

Other resident declared that he had been asked R5 000 for one month's water consumption.

Their discontent was not quelled when the town clerk, Mr Dawie van Vuuren, admitted that tariff structures were higher than neighbouring towns such as Sandton and Randburg.

Mr van Vuuren explained that because Midrand was a fledgling municipality, with relatively few residents, tariffs had been structured to meet capital costs.

The meeting estab-

lished that the basic unit charge for electricity imposed by Escom was 2.2 cents, which the municipality then sold to its consumers at 9.16 cents.



Residents also expressed alarm at the high charge for water and said it was unfair that they had to pay a basic service charge even if they obtained their water from boreholes on their properties.

The chairman of the Glen Austin Ratepayers' Association, Mr S Clipsham, said it was disgraceful that residents were being charged 500 percent more for electricity than the cost imposed on the municipality by Escom.

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R200 electric shock

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Star
16/9/82



ONE day's light fallout on Mrs Jenny Timm's garden furniture left a black smear on this wad of cottonwool. The furniture was on a veranda protected by an awning.

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K/9/82

Pinelands group to fight power-station pollution

ARGUS 16/9/82

A GROUP of Pinelands residents has formed a committee to act on pollution from Athlone power station, which they fear is affecting health, particularly of the elderly and very young.

A spokesman for the group, Mrs Jane Cotton, says there is a persistent fallout from the station which occasionally reaches "snowstorm" proportions.

"Recently we have had a number of incidents when the whole area has been covered in a blanket of black soot.

DRIZZLE

"We have been told repeatedly that the problem occurs only occasionally. This may be true of the very bad fallout storms, but there is a constant 'drizzle' of soot that never lets up," she said.

The residents allege the fallout is responsible for what they believe is an unusually high incidence of chest infections, asthma, allergies and skin ailments among children.

Previous complaints resulted in deadlock. The City Council, backed by CSIR reports, claimed pollution levels were within those set in a 1957 contract between the Pinelands and Cape Town municipalities.

ACT

The Council also said the fallout level was within the limits set in the Air Pollution Prevention Act of 1965.

Dr R J Coogan, the Cape Town Medical Officer of Health and chairman of the regional air pollution committee for the Western Cape, said all surveys showed no evidence of a direct link between the fallout and disease.

"Only continued exposure to relatively high

densities would result in problems," he said.

"Many studies of similar pollution in England showed that the main effect is to make existing ailments, such as bronchitis, worse.

NOT PRIMARY

"It is not considered a primary cause of disease."

Dr L R Tibbit, Medical Officer of Health for the Divisional Council, said: "As part of the extension of the air pollution survey carried out for the Cape Town City Council by the University of Cape Town between 1977 and 1980 we are launching a major survey of air pollution in the Divisional Council area.

"We are also going to undertake an epidemiological study of the alleged health effects of

pollution in Edgemoed, Bothasig and Pinelands."

Mr D C Palser, city electrical engineer, said there was no reasonable economic solution.

EXPENSE

"The use of electrostatic precipitators is considered too expensive for the small number of houses involved. It was estimated a few years ago that it would cost in excess of R10-million to put in this form of pollution control and there would still be no guarantee that the problem would be eliminated.

"The only alternative is to close the Athlone station down and buy electricity from Escom at a price of about R5-million a year.

"It's unfortunate and I sympathise, but one has to do what is best for the community as a whole."

Board mum on power subsidy

EAST LONDON — No comment on the late payment of the government electricity subsidy to consumers here could be obtained from the Decentralisation Board yesterday.

The Town Clerk of King William's Town, Mr Henry Hutten, said the official responsible for the administration of the subsidy payments was not available.

"I was informed he had gone to Venda and would only be available next week," Mr Hutten said.

Confusion over the subsidy payments to East London and King William's Town electric-

ity consumers by the government followed a letter to the two municipalities from the Decentralisation Board.

Although the contents of the letter are confidential, both Mr Hutten and the East London city treasurer, Mr J. Howell, have said the letter does not appear to agree with what they had been led to believe about how the subsidy would be administered.

Payment of the subsidy is now five months late and the back payments to consumers in the two towns are estimated to total more than a million rands. — DDR.

Editorial opinion, P14.

55 (107) (107)

Koeberg man found guilty

Cape Times 17/9/82

Staff Reporter

A 23-YEAR-OLD electrician who took photographs of electrical work done at the Koeberg nuclear power station was convicted yesterday by a regional magistrate of contravening the National Key Points Act.

The hearing was held in camera.

Michael David de Villiers, 23, of Sunderland Street, Kensington, admitted that on March 9 he had obtained photographs relating to the Koeberg nuclear power station and had shown them to family and friends.

He said he had been employed by an electrical engineering concern contracted to do installation

work at the power station as an assistant to Mr A Pierart, who had taken photographs to record work done at Koeberg.

He had taken the photographs home from Mr Pierart's office without permission.

He had wanted to take them back the next day but the photographs had attracted the attention of the police when they had fallen out of his pocket while he was jogging home after visiting his girlfriend on March 9. A police van had arrived when he picked up the photographs.

Sentence will be passed today. Bail was extended.

Mr D Cronje was the magistrate. Mr C A Cilliers appeared for the State and Mr H Scoombie for De Villiers.

Cape

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Times, Saturday, September 18, 1982 3

Key Points Act: City man fined

Staff Reporter

A KENSINGTON electrician who removed 16 photographs from the Koeberg nuclear power station to show to his family and friends, was yesterday fined R600 (or 12 months) by a regional magistrate for contravening the National Key Points Act.

The magistrate, Mr D Cronje, suspended R300 (or six months) for five years on condition that Michael David de Villiers is not convicted of contravening the Key Points Act or the Official Secrets Act.

Evidence in the trial — which was held *in camera* — was that on March 9, De Villiers, 23, of Sunderland Street, removed photographs from the office of his senior and took it home to show to his parents and his friends.

In a statement handed to the court De Villiers pleaded guilty to obtaining photographs relating to the Koeberg Nuclear power station and of showing them to family and friends.

He said he had wanted to return the photographs the next day but they came to the attention of the police when they fell out of his pocket while he was jogging home after visiting his girlfriend on March 9. A police van had arrived as he was picking up the photographs.

In mitigation of sentence, De Villiers said he was a first offender. He came from a "solid" background and there was no political motive in the removal of the photographs.

Mr D Cronje was the Magistrate. Mr C A Cilliers appeared for the State. Mr H Schoombie, instructed by Routledge-MacCallums, appeared for De Villiers.

Fuel rises

55 you'll get
Star 2/19/82
a warning

Pretoria Bureau

The Department of Mineral and Energy Affairs has assured motorists that they will be given fair warning of any rise in the price of petrol.

In recent weeks there has been speculation that the price of petrol could rise by between 4c and 6c a litre and that the price of oil could rise by 14c a litre.

Although the department has received a formal application for a petrol price increase, the director-general of the department, Mr Sarel du Plessis, has refused to comment on the likelihood of an increase in the near future.

No decision has been taken on the matter as yet, but Mr du Plessis attended the weekly Cabinet meeting today at which a possible petrol price increase could have been discussed.

One factor which could push up the price of petrol is the weak position of the rand in relation to the American dollar.

At the beginning of the year R1 held the equivalent value of one dollar. Since then the rand has slumped and is worth only 86 American cents.

There has also been speculation that an additional levy could be placed on the price of petrol to raise funds for road-building and that licences and third-party insurance fees could be gleaned in future from a similar petrol levy.

Transkei to cut SA power links

SS

Industrial Week

By Lynn Carlisle

2/9/82

A STRING of hydro-electric projects aimed at making Transkei independent of imported power are being planned — and the stage has been set to construct the R30-million Collywobbles scheme on the Mbashe River.

With Butterworth and Umtata allocated top spots for decentralisation by the South African Government, a boost in Transkei's electrical out-

put is vital for any future industrial growth.

Tenders ranging from R16-million for civil work and R7,5-million for mechanicals are being scrutinised by the Transkei Government and the Transkei Electricity Supply Corporation (Tescor) for "stage one" of the hydro-electric projects programme — three

14 mW sets at Collywobbles

"This will be a run-of-the-river hydro-electric power station and the first set should be commissioned in March 1984," Tescor chief executive officer Stephen Collins told Industrial Week.

"Unless this and another scheme are in operation within five years the Tescor national power grid will be unable to meet industrial and general requirements."

Stage two will involve

damming the Quaweni River which will provide water storage for Collywobbles and the siting of another hydro-electric power station below the dam.

"We anticipate producing 25 mW from Quaweni, while a stage three is planned downstream of Collywobbles sometime after 1987."

Peak electricity consumption throughout Transkei is currently 32 mW.

But the commissioning of all three stages of the hydro-electric power stations will push output up to 100 mW, said Collins.

ADM 22/9/82

SA oil firms press for more money

Pretoria Bureau

(S)

OIL companies are pressing hard for an increase in their profit margins, and are likely to get it before the end of next month, it was learnt yesterday.

This could mean an increase in the petrol price of 4c or 5c a litre.

It is understood in terms of the Government formula the companies claim they are "under-recovering".

However the Director-General of Mineral and Energy Affairs, Mr Sarel du Plessis, declined to comment on the possibility of an imminent price hike.

He said when the time was ripe the relevant Minister would make an announcement.

It went without saying there had to be occasional price adjustments, he said.

The Government, it was learnt from another source, is doing all it can to delay the announcement of another price rise.

But motor industry sources claim the price stabilisation fund is depleted, the dollar-rand rate is still unfavourable — in the past 18 months the rand has depreciated by 35% — and "the likelihood that a price rise can be avoided hardly exists".

Koeberg fire report lashed

Mail Correspondent

CAPE TOWN. — Mr Roger Hulley, Progressive Federal Party's deputy spokesman on energy affairs, yesterday criticised the report into the fire at the Koeberg nuclear power station.

"It says the board of enquiry was not able to produce details of causes leading to the electrical fault, yet this is precisely information vital to establish before Koeberg becomes operational," he said.

Reaction to trench deaths

CONTRACTORS presently involved in Soweto's R204-million electrification scheme are to embark on a project aimed at preventing more trench deaths.

This follows a public outcry over unprotected trenches, which have claimed five lives and injured hundreds of people in the past seven months.

A spokesman for the contractors, Mr Charles

⁵⁵ Jackson, said his company would, among other things, inform residents in advance where diggings would be taking place to reduce the increasing number of trench accidents in the townships.

"We put up warning signs next to the trenches but these were removed. Once replaced, they were stolen again," Mr Jackson said.

^{22/9/82} At present, trench-digging is taking place at Zola, Emndeni, Moletsane, Orlando West, White City Jabavu, Meadowlands West and East, Mapetla, Tshiwelo and Naledi.

In the past few months, contractors have received many claims from residents, amounting to hundreds of rands. Some, according to the contractors, were "not genuine".

Coal merchants clash over prices

55 200
Sowetan 24/9/82

By STAN MHLONGO
THE SIMMERING row between coal merchants in the Vaal Triangle started to boil this week when claims that residents were being ripped off by traders were made by another merchant.

An Evaton coal merchant, Mr John Dube, told **The SOWETAN** that the month-long row, which has embraced places as far afield as Viljoensdrift and Sasolburg, was "between licensed and unlicensed traders."

The misunderstanding allegedly started when some traders decided to increase the price of the 75kg bag of coal from R2 to R3 early this year.

"The public is being ripped off as the Government control price for a 90kg bag is R2.88

— while local traders charge R3 for a bag weighing 75kg," said Mr Dube.

Mr Dube, who is a licensed trader, said he was worried by the other traders who were taking the unlicensed traders to task for trading without licenses. "While it was decided by members of the Vaal Coal Merchants Association that people would be allowed to trade without licenses."

This was because many people who were coal traders were found to be pensioners. Mr Dube said he believed that a mob was busy forcing the drivers who worked for the unlicensed merchants to leave their jobs as they were likely to be prosecuted if the authorities

found them working for the unrecognised merchants.

Mr Dube felt that the Vaal Triangle Community Council should intervene and try to stop this row before things got out of hand.

The former secretary of the Evaton Ratepayer's Association, Mr Tom Nhlapo, said he was disgusted by the whole racket.

"If blacks can stoop so low as to fleece their own brothers, then there must be something morally wrong with us," he said.

Another resident, Mr Ledibu Matlawe, felt that "the whole thing deserved to be studied by the authorities and the culprits severely punished."

Sasol seeks synfuels' protection

24/9/82
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By David Braun
A uniform tariff protection should be applicable to all producers of liquid fuels from indigenous sources, says the chairman of Sasol, Mr D P de Villiers.

Writing in his annual review, he said South Africa could consider itself fortunate in that it already possessed a practical structure for investment in synfuel projects.

NEW PROJECTS

"Moreover, the Government is continuously striving to adjust and improve this framework to facilitate investment in new projects.

"I am glad to say that there is increasing evidence by potential investors in synfuels and by the Government that, whatever adjustments may become necessary from time to

time, a uniform tariff protection should be applicable to all producers of liquid fuels from indigenous sources.

"This is essential to prevent a misallocation of resources and to ensure that the most economic production methods are adopted.

PRICE-LINK

"A further essential prerequisite for a favourable investment climate in synfuels is the continued assurance the prices of locally produced synfuels will in the longer term remain linked to international fuel prices."

Mr De Villiers said that uniform price control and tariff protection were also necessary if new investment and the most economic production methods were to be encouraged in the chemical industry.

The Government was

considering adjustment to the present structure of the industry for the promotion of new investments.

"We are particularly pleased that matters under scrutiny include the competitive structure of the industry, price control and the development of a realistic protection policy.

"On price control and recent proposals, we believe that, wherever it is decided to retain price control, it is of utmost importance not to remove the incentives for each member of industry to increase productivity and optimise the overall efficiency of operations."

OBJECTIVE

Mr De Villiers said that it was difficult to achieve this objective if differential prices, based on differences in operating cost, raw material cost and age of plant, were made applicable to various members of the industry.

Differential price control would not only guarantee a return to the less efficient but eliminate the possibility of an improved return for the more efficient members of the industry concerned.

NOTE CAREFULLY

1. Enter at the top of each page and in column of the block on this cover the number of question you are answering.
2. Blue or black ink must be used for answers. The use of a ball point pen is acceptable. Red or green ink may be used only for underlining, emphasis or for diagrams which pencil may also be used.
3. Names must be printed on each separate sheet (e.g. graph paper) where sheets additional to examination book(s) are used.
4. Do not write in the left hand margin.

notes, pieces of paper or other materials brought into the examination room candidates are so instructed.

Candidates are not to communicate with other candidates or with any person except the invigilator.

The answer book is to be torn out.

Answer books must be handed to the commissioner or to an invigilator before leaving the examination.

Any dishonesty will render the candidate liable to disqualification and to possible exclusion from the University

Continuity improves despite 'incidents'

Sasol 2 profits top R69-million

SS
KDN 24/9/82

By STEVE ELLIS

SASOL 2, trading in the black for the first time, posted profits totalling R69 600 000 in the year to June.

And after deducting past losses of R20 200 000, it provided holding company Sasol with a R23-million non-taxable maiden dividend — largely in line with expectations.

Sasol chairman Mr Dawid de Villiers says in his annual review that the continuity of production at Sasol Two improved considerably during the second half of the year.

In the first half, there were a number of "incidents" which led to R35-million worth of claims under various loss-of-profits insurance policies — some of which are yet to be settled.

However, many of the teething problems appear to have been solved.

According to Mr De Villiers: "It has been demonstrated that all of the individual production units are capable of producing at or beyond their design capabilities."

Sasol Two's entry into profit is the main reason behind Sasol's 20% high bottom-line profit of R199 670 000 in the June year.

What is more, it is confidently expected that the Secunda operation will be more profitable this year and that it will again be the main contributor to Sasol's earnings growth.

Mr De Villiers foresees increased taxed profits in 1982-83 but "bearing in mind the uncertainties (in the industry), it would ... be unwise to predict a rate of expected profit growth."

Sasol One's profit rose 6,8% during the past year in spite of a 27,7% higher

tax bill, and a cut-back in petroleum-based activities to make way for increased production by the Secunda sisters.

"This achievement is largely due to a considerable improvement in the efficiency of operations at the Sasolburg works and at the Natref refinery, increased interest earned on short-term investments as well as increases in the prices of certain products."

The balance sheet shows that short-term deposits and loans rose from R171 608 000 to R209 134 000 and interest received (from all sources) jumped from R36 745 000 to R59 825 000.

Interest paid amounted to a nominal R4 598 000 (1981, R6 809 000).

Mr De Villiers says that the economic downturn will affect some of Sasol's operation more than others — for example, less demand for pipeline gas from Gascor has already become evident.

Throughput of crude oil refining and hapha processing could also be affected — not only by the increased production at the two Secunda plants but also by a probable reduction in demand for liquid fuels and plastics.

"A further uncertainty concerns product prices, most of which are due to the nature of our business, a function of international crude oil prices, and of course the rand-dollar exchange rate."

Commissioning of the first phase of Sasol Three has been successful and the Sasol board is confident that the project (now 98,5% complete) will be finished within the original budget of R3 276-million.

"Production units representing 50% of overall capacity from gasification to final oil refining are now operational and commissioning of the balance (is) proceeding according to schedule."

It appears very likely that the eventual completion of Sasol Three will signal the end of the group's large-scale capital investment programme for some time.

Mr De Villiers says: "From our cash flow planning it is apparent that we will not be able to tackle major new projects over the next few years."

Considerable sums of cash will be needed to optimise production at the Secunda plants and the ageing Sasolburg works will require substantial amounts to renew and replace obsolete plant.

He says it is also in the interests of Sasol shareholders that cash be conserved as far as possible to finance the acquisition of the 50% of Sasol Two it does not own.

That purchase is still not expected to occur until 1984.

The preparation of Secunda Collieries — the world's largest underground coal-mining complex — to meet the total needs of both Sasol Two and Three "has reached an advanced stage of completion".

The complex's installed capacity rose 67% during the year, from 46% to 77% of full capacity, through the commissioning of another 15 production units. "It is expected that all the planned production units will have been commissioned by April 1983."

More than 11-million tons of coal was mined in the year under review.

"The actual production rate increased by 65% over the year and by June the output was at a rate equal to 17 200 000 tons a year, or 17% of SA's coal production for inland consumption during 1981."

Commenting on the international syn-fuel scene, Mr De Villiers says that the cancellation of a number of large projects is a "regrettable development".

"Rather than sitting back and enjoying and enjoying the relief of a temporary softness in crude oil markets, the industrialised countries of the West should be intensifying their efforts to establish synthetic fuel and other alternative energy projects."

Big bucks for Sasol

The \$9 billion/year US company Westinghouse is to invest about R40m in a new coal gasifier at Sasol 2. Sasol itself will contribute a further R20m to the project.

The first of its kind in the world, the 25-storey high monster will operate alongside Sasol's existing Lurgi gasifiers which convert crushed coal into gas, from which synthetic fuel is made.

The US money and expertise comes with remarkably few strings attached, as Westinghouse regards it not as a commercial venture but a large-scale test and demonstration of its new-technology coal gasification process.

Yet it is not merely a pilot plant. With a capacity for handling 1 200 t of coal/day, it is about the same size as Sasol's fourth generation Lurgi gasifiers.

Sasol is the logical venue for the experiment as its existing facilities make it the fastest and cheapest place in the world to put such a large plant on line. And as the world's only commercially viable synthetic fuel producer, Sasol has immense experience in coal gasification which will greatly assist the US company's research.

If the test is successful, Sasol, in terms of its agreement with Westinghouse, will be able to purchase the unit at well below cost. This could ultimately help to optimise its coal usage as the Westinghouse gasifier is designed to process fine particles of coal which cannot be handled by the Lurgis Sasol has used for the past 25 years.

At present about one-third of the coal mined at its 30 Mt/year Bosjesspruit colliery is too fine to put through the Lurgis. Some of this is fired to generate steam for the plant. The rest, if it is not be 'wasted, has to be used to produce electricity which could be more cheaply bought from Escom.

Another advantage of the new gasifier is that, unlike Lurgi gasifiers, it produces little to no tars and liquid hydrocarbons. This simplifies the gas-cleaning processes and makes the waste ash suitable for use as a safe, non-leaching landfill or construction material.

The main attraction of the project for Westinghouse is that it will have the opportunity to perfect and demonstrate a new technology to potential customers, including Sasol.

Westinghouse is responsible for the design of the plant and all aspects of project management, engineering, procurement and construction. It will also supply about 30 engineers and technicians to operate and monitor the plant in co-operation with Sasol personnel.

First orders for hardware are likely to be placed next month, with a large proportion

coming from SA. Construction should begin in mid-1983 and end in August 1984. Demonstration should commence early in 1985.

Sasol is responsible for integrating the unit with the existing Sasol 2 complex. It will provide coal preparation and feed systems, ash disposal systems, utilities, electricals and certain site buildings valued at about R14m.

During the test operation, it will provide the test facility with startup steam, coal, oxygen, nitrogen, electrical power, water and waste-disposal and other services valued at about R6m.

The gas from the plant will be supplied to Sasol for use in its synthol reactors. As an added bonus, the Westinghouse gasifier also produces superheated steam, unlike the Lurgi gasifiers. This will be cycled into the Sasol steam system.

In spite of its size, the new gasifier will consume only about 3% of coal and 5% of oxygen produced by the Sasol facilities at Secunda. It should produce 65 500 m³/hour of gas and 20 t/hour of superheated steam at a temperature of 427°C.

'No nuke' is bad. news for SA haters

By RICHARD WALKER

NEW YORK. — A close, year-round UN watch on South Africa's nuclear activities — with particular reference to its weapons potential — has found nothing worth reporting, the Secretary General Javier Perez de Cuellar has told the General Assembly.

Under orders from the assembly to "follow closely" and report on South Africa's "evolution in the nuclear field", the UN chief has responded with a report of just two sentences — he had "neither received nor identified any information" and so had nothing to add to existing reports, he told the assembly.

The response appeared a snub in the face of a heated assembly resolution of December last year, which cited South Africa's "frenzied ac-

quisition" of nuclear-weapon capability and branded this a grave danger to international peace and security.

Meanwhile South Africa's membership of the International Atomic Energy Association was the target yesterday of the Vienna-based agency's newest member, Namibia.

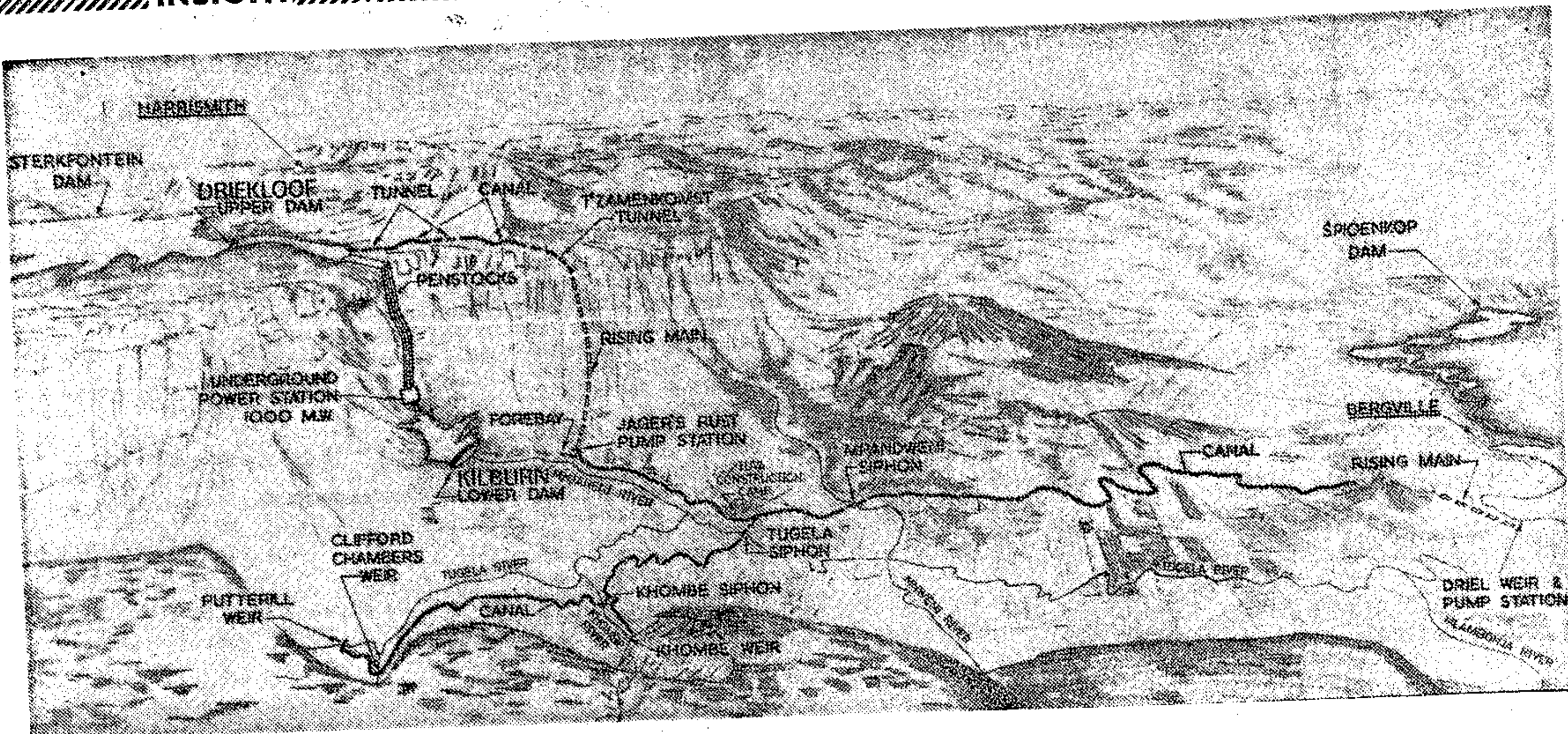
The unlikely challenge was made possible when the IAEA general conference voted unanimously to admit Namibia — as represented by the UN Council for Namibia — to full membership.

Mr Feodor Starcevic, chairman of the Namibia Council delegation, told the conference admitting Namibia was "particularly relevant" in the light of South Africa's "illegal exploitation" of the territory's uranium.

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Power scheme 1

A mountain that pushes out power...

By John Bentley
A mountain that generates electricity sounds like the perfect ingredient for a modern fairy story.

Except that such a fairytale mountain already exists, right here in South Africa. And even more are in the offing according to Escom's master plan for the next few decades.

The first of these magical hillsides is on the slopes of the Drakensberg range near Oliviershoek, not far from the spectacular Amphitheatre, gathering place of the giants in local folklore.

Invisible

Water pumped uphill between two reservoirs is allowed to run down again — all through tunnels bored deep in the hillside — using gravity to generate power which takes up the overload on the national energy grid during periods of peak demand.

The enormous tunnels and turbines would have done the legendary giants proud. And the fact that the workings are virtually invisible from the surface adds to the fairytale quality of the scheme.

The brainchild of Mr Bruno Graber who heads Escom's hydro-electric section, the Drakensberg Pumped Storage Scheme is a dual-purpose project realised in co-operation

with the Department of Water Affairs.

Along with its ability to generate electrical power, it is used to pump water from Natal's Tugela River up over the Berg into the Sterkfontein Dam on the Orange Free State side.

South Africa is a relatively dry country with erratic rainfall, so hydro-electric power in the normal sense is not an important part of Escom's electricity-generation capacity.

There are only two conventional hydro power stations in the Escom network, at the Hendrik Verwoerd and P K le Roux dams. Their generating capacity is 540 megawatts, less than three percent of the total generated nationwide.

They are operational only when the dam levels are high enough.

Change

But pumped storage schemes will change the situation markedly over the next few years.

The Drakensberg project, with a peak generating capacity of 1000 MW, has raised the proportion of locally generated hydro-power in the system to eight percent.

Pumped storage schemes are net users of electricity, consuming more power to pump water back than they produce in the "generating mode."

Their function is to generate power during periods of peak load on the system. Pumping is then done in periods of low demand.

"In fact, it's a way of storing electricity. You could call it an 'hydraulic battery,'" says Mr Tony Holthuysen, deputy manager at Drakensberg.

The use of electricity fluctuates continuously according to consumer demand. Periods of high demand (peak load) are between 7 am and midday and during the evenings from about 6 to 10. Lowest demand is from around midday on Saturday to early on Monday morning.

Invaluable

In its first months of operation the Drakensberg scheme has proved invaluable, coming to the rescue several times when power imported from Cahora Bassa has cut off.

Plans are now under way for a similar scheme using water from the Palmiet River, a few kilometres south of Grabouw in the Cape.

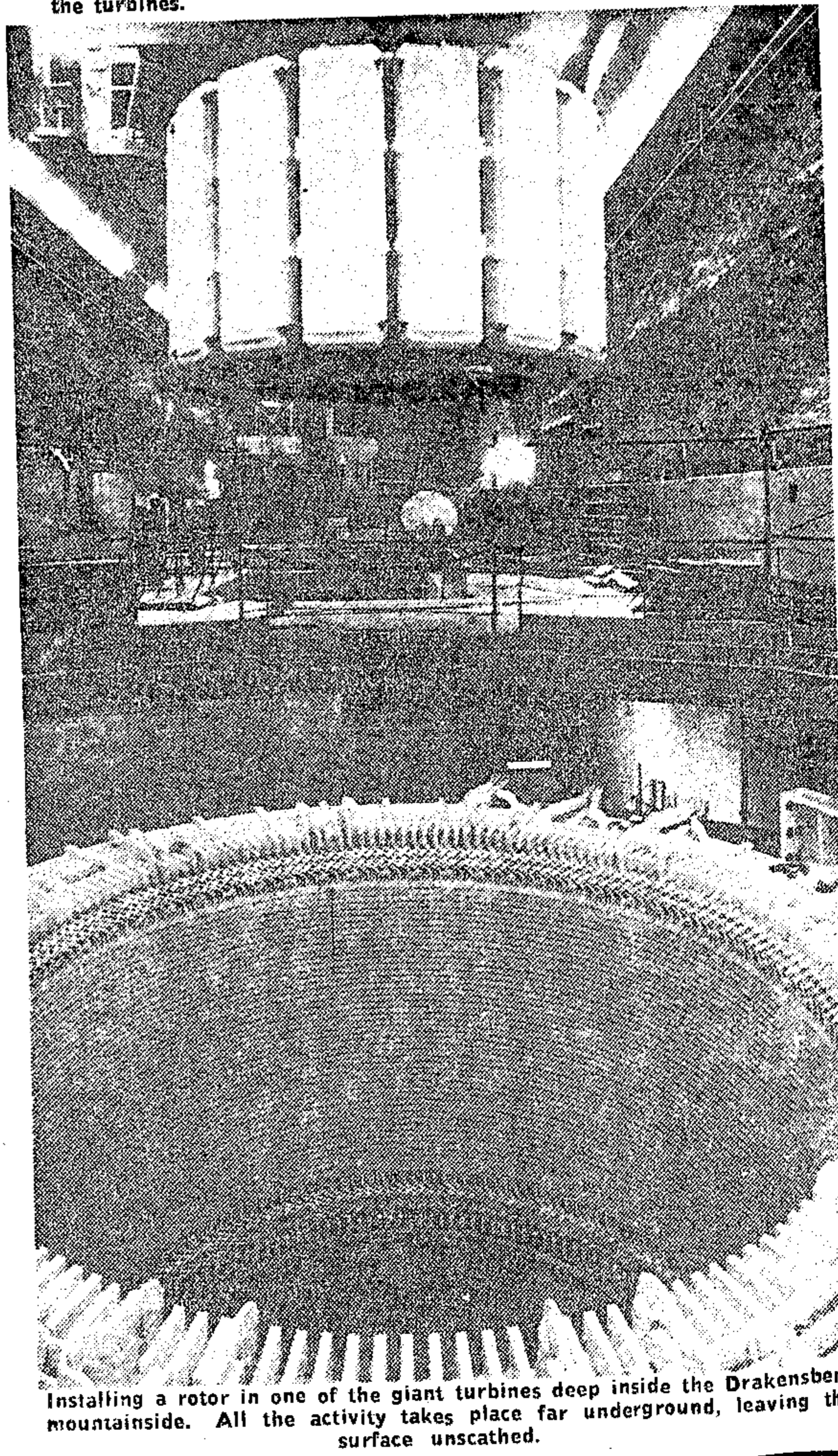
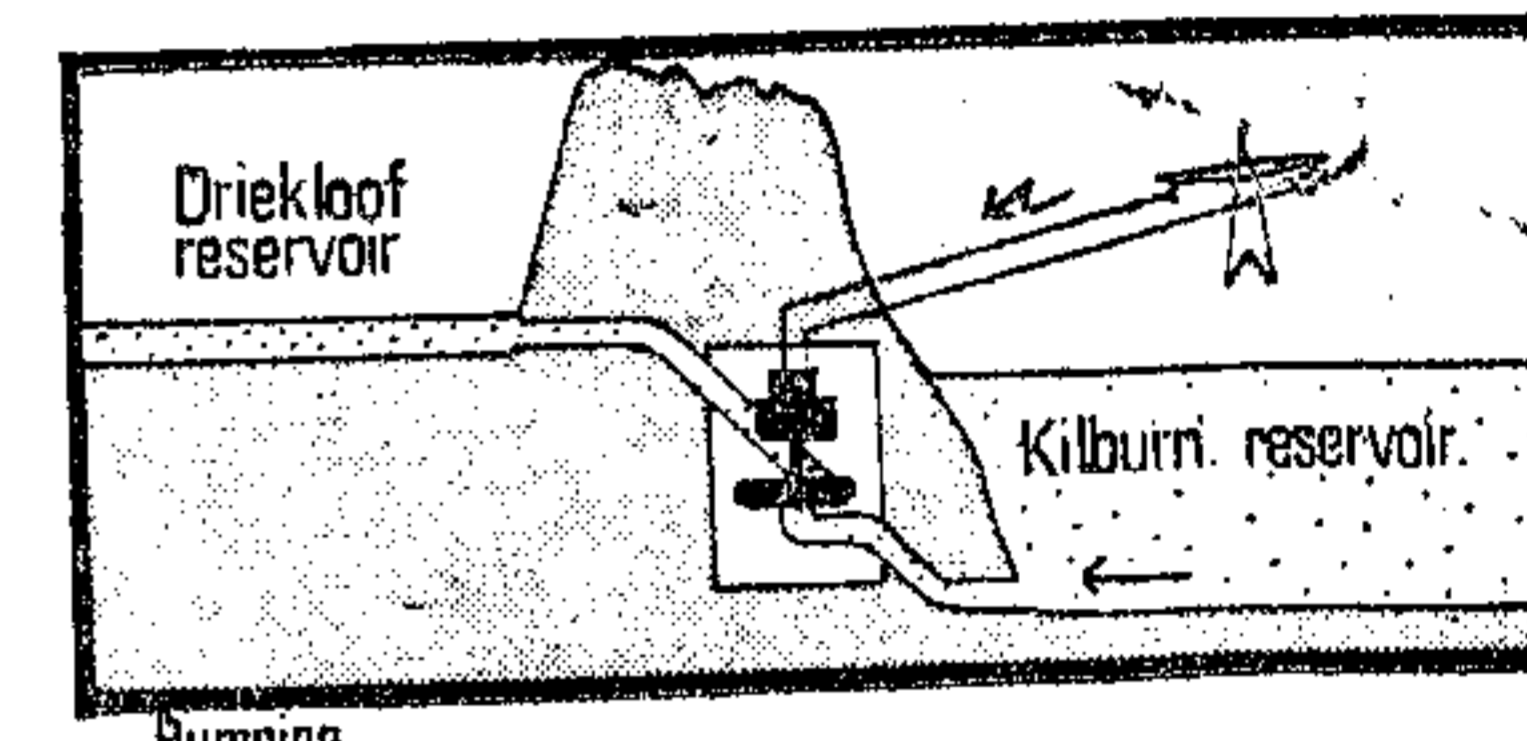
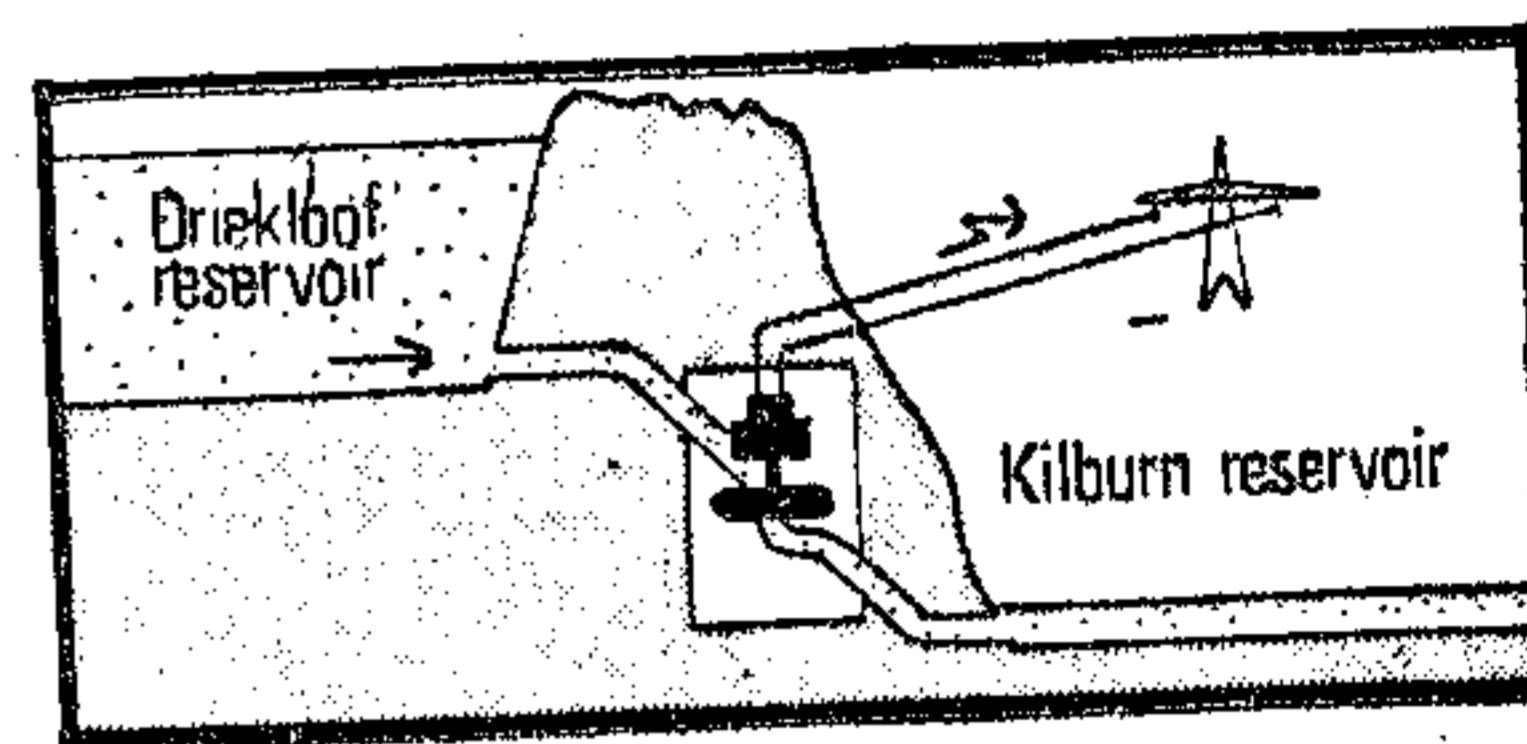
The project, which could be completed by 1988, will pump water into the Steenbras reservoir, adding some 30 million cubic metres of water a year for use by the Cape Metropolitan area.

Further schemes on the Tugela are also under investigation.

All such "peaking plants" will have a dual function, transferring water from one dam to another and operating partly as normal hydro and partly as pump storage.

An elegant way of eating your cake and still having most of it!

The Drakensberg scheme . . . water from the Tugela is fed along a network of canals back to the Jager's Rust Pump Station where, instead of being pumped up through the old Tzamenkomst Tunnel, it is pumped to the lower (Kilburn) dam. The power station's underground turbines then pump water through tunnels to the upper "dam-within-a-dam," Driekloof. The process is reversed at periods of peak electricity load, when water is allowed to run down the tunnels, dropping 500 metres at 19 metres a second to turn the turbines.



Installing a rotor in one of the giant turbines deep inside the Drakensberg mountainside. All the activity takes place far underground, leaving the surface unscathed.

55

Power scheme 2

The giant that keeps growing

Escom, South Africa's burgeoning electricity utility, is a giant, even by world standards.

Growing at a rate which has seen it double in size over the last 10 years — following similar performances in each of the two preceding decades — the national supplier of electricity currently ranks with the third-biggest utility in the US.

And this spectacular growth pattern is to continue, with one complete new 3 600 MW coal-fired power station scheduled for completion each year from 1985 up to the end of the century.

There is also the possibility of more hydro-electric pump-storage schemes to follow the recently completed Drakensberg project and the Palmier scheme in the Cape, as well as more nuclear stations to follow Koeberg, should the economics justify such a step.

The present rate of expansion — 8.8 percent a year — is over twice the annual national increase in demand for energy.

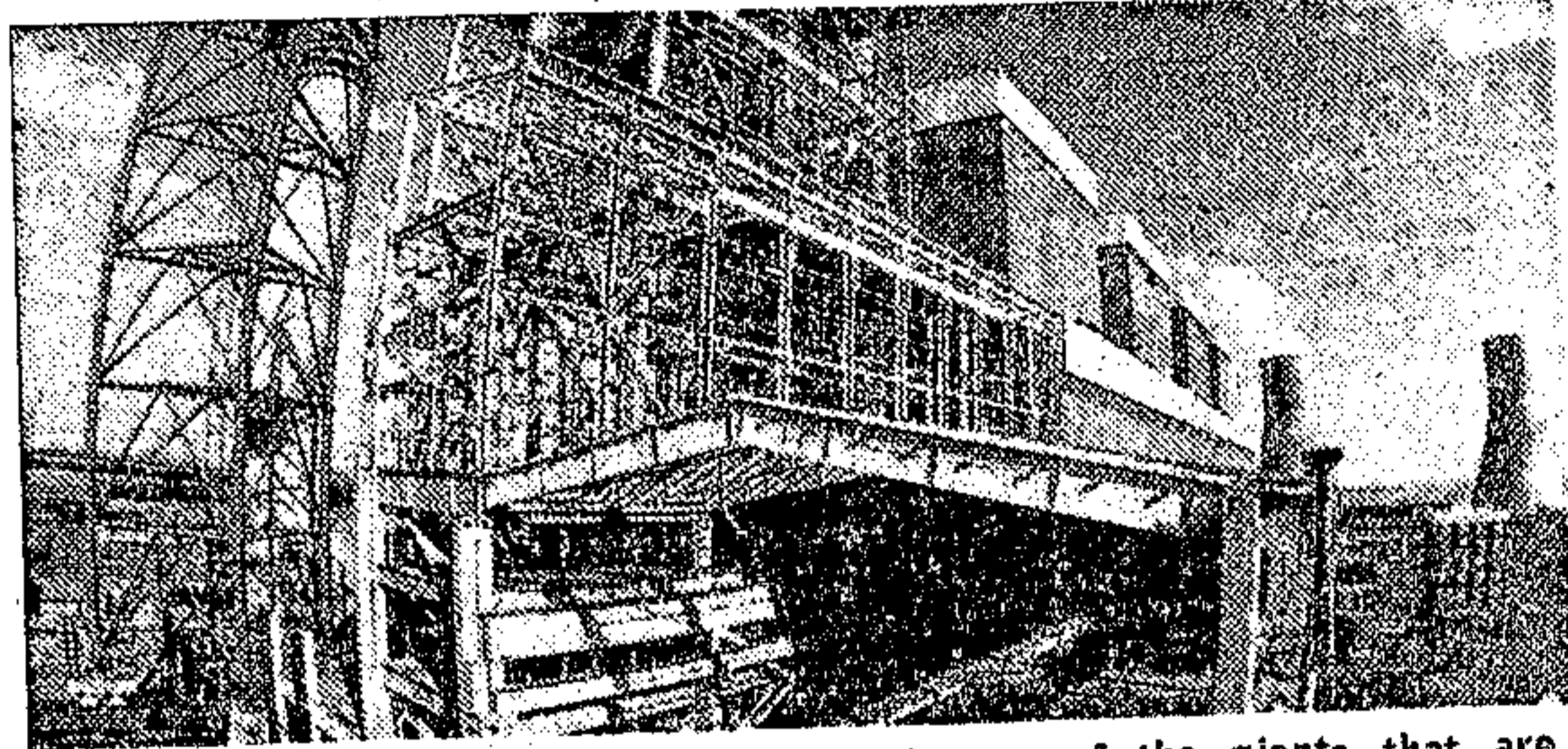
But, points out Escom's chief engineer (system planning), Mr Bruce Norman, electricity is supplying an ever-increasing proportion of South Africa's energy needs.

The trend is a logical one, Mr Norman says. "Electricity is one of the most useful and efficient forms of power. It is flexible and can be used in almost any application."

These properties mean electricity is playing an important part in efforts to decrease the country's dependence on oil.

South African Railways is converting from diesel to electric locomotives. Country towns which used to produce their own power with diesel-fired generators are turning to Escom. Mines are replacing diesel vehicles with electrical-driven versions.

The network of electrical power is continually spreading, supplying more rural areas



Changing skyline: Duvha power station is one of the giants that are transforming the flat Eastern Transvaal landscape.

and the national states, such as Transkei, Bophuthatswana and Venda.

Projects like the electrification of Soweto will increase demand still further.

The growth in demand for electricity will continue at a higher level than the overall increase in demand for power for many years to come.

"We expect it to tail off from the present increase of 7.8 percent a year to 6.6 percent by the year 2000, dropping to 4.5 percent by 2050," Mr Norman says.

The new generation of coal-fired power stations will be the backbone of Escom's "base-load" plant for the foreseeable future.

Sited in the Eastern Transvaal coalfields, they are gradually transforming the vast, flat skyline with their tall chimneys and curved cooling towers.

The sixth and last of the giant 600 MW sets that make up the Matla power station will be commissioned next year. Another giant, Duvha, currently has four sets commissioned. The final two will be operating by 1984.

Then will follow the Tutuka station near Standerton, and after that a series of names which by their ring evoke sensations of mysterious power and might: Lethabo, Matimba, Khutala, Majuba, Lekwe...

All will be 3 600 MW stations, made up of 600 MW units, though 900 MW and even 1 300 MW units are not ruled out for the end of the century.

An important innovation planned for several of the new giants is "dry cooling," which will cut water consumption dramatically.

The first will be at Matimba, which is to be sited in the relatively dry Ellisras area. The technology is well proven — Escom has run dry-cooling on 200 MW sets at Grootvlei. But the scale will be totally new: there are no other 600 MW dry-cooled sets in existence.

"Dry towers are more expensive to build, and lead to a loss of efficiency in the plant, but water savings are appreciable," says Mr Ross Hatton, manager of the conventionally-

cooled Duvha station.

A conventionally cooled station loses something like 30 million litres of water a tower a day. Dry cooling cuts that figure by 64 percent... against an increase in operating and running costs of around eight percent.

There are no plans to convert conventional stations to the new system: given the 40-year life of a station, that would be uneconomic.

The dry-cooled units already approved — so far there are 12 on order — will make an appreciable difference to Escom's water consumption, currently running at about 1.8 percent of the national total.

The new coal stations will be tied into a new 800 kilovolt "super-grid," superimposed on the present 400 kv national grid.

This will allow more economic transmission of power over long distances, allowing reinforcement of the system in Natal and the Cape.

"Overall costs are considerably cheaper, though the cost of ter-

minal equipment is high," says Mr Norman.

Another solution to the problem of power for areas far away from the coalfields is nuclear power — and his is one of the reasons given by Escom for the decision to commission the Koeberg station in the Cape.

Koeberg's first giant 922 MW set will go on stream in 1983, the second in 1984.

There are no concrete plans for further nuclear stations within the next ten years. But Escom is fully aware that an alternative to coal will have to be found before the "coal crisis" hits South Africa. By its estimates, problems with coal supplies could begin by "around the year 2030."

The third ingredient in Escom's power formula is pumped storage.

First in a series of hydro-electric projects that will use "pumped water" to generate power during peak load periods, so easing the strain on the grid, is the Drakensberg scheme on the Tugela.

Last winter, problems with shut-offs in the supply from Cahora Bassa forced frequent load-shedding. Now, admittedly helped by a comparatively mild winter which has seen peak demands somewhat lower than expected, though still higher than last year, Escom is in a position to cope with cuts in supply.

The recently approved Palmiet pump-storage in the Cape, and possibly further schemes on the Tugela, will give even greater self-sufficiency, though they will continue to take Cahora Bassa's cheap "natural" hydro power whenever it is available.

With coal as its "anchor," nuclear energy as a supplement and possible replacement, and pumped storage to handle periods of heavy demand, South Africa's electricity giant is confident of satisfying the country's ever-growing power appetite well into the 21st century.

Our nuclear Christmas present

By James Clarke

In a few weeks' time Koeberg's number one reactor will be loaded with its French-made uranium fuel. Then, soon after the New Year, the atomic reaction will begin to heat water for the conventional steam-driven turbines and, slowly at first, power will be fed into the nation's electricity grid.

By next winter the turbines will be spinning full bore and a mere 120 tons of natural uranium will be producing as much electricity annually as 3-million tons of coal.

Not long afterwards number two reactor will be fueled up and the coalless Western Cape will be producing from its relatively small nuclear power station far more power than the huge Cahora Bassa hydro scheme on the Zambezi.

Thus far South Africa's nuclear energy scientists are satisfied. It has been expensive (Koeberg, in the final

Power scheme 3

analysis, will probably have cost us R2 000 million but, economically, it has been worth it).

To have brought to the Western Cape the same amount of power via coal-fired stations would have cost a great deal more, and the environmental impacts (smoke, water pollution from mining, power lines) would have been enormous.

Will there be more Koeberg-style light water reactors soon?

Not this century, according to an Escom spokesman. But says the President of the Atomic Energy Board, Mr Wynand de Villiers: "A nuclear development plan is essential."

There is really only one viable alternative to going increasingly nuclear: to import hydro-electricity from

Zaire which on one bend in the Zaire River, could supply us with many times more power than we will probably ever need. In fact the potential site is nearer to Cape Town than Cahora Bassa is to the Rand.

But the political instability of Central Africa makes it an impossible dream.

What of other alternatives?

● **Coal:** we have enormous reserves (110 000 million tons are economically extractable which, at present extraction rates, would last nearly 1 000 years) but coal is increasingly being looked upon as a multiple-use chemical. It can be broken down into oil for a start and could, potentially, make us independent of oil imports.

● **Hydro:** The Orange

River's two hydro schemes supply just over half the equivalent of a single reactor at Koeberg (540 MW) but are used only as reserve for peak loads or emergencies. The Drakensberg pumped storage scheme supplies 1 000 MW but, again, is for peak load times. The Tugela has a fair amount of latent energy but, all told, hydro-electricity is unlikely to supply more than, say, eight percent of our requirements over the next half century.

● **Solar power:** although the sun's direct power could bring electricity to remote areas and supply a third of the power needs of houses in South Africa, it is unlikely to make significant contributions to the overall energy picture.

Solar power is potentially of importance in

bringing down the cost of living for suburban dwellers (via roof collectors to heat water) and farms. It is grossly starved of research funds according to solar energy scientists. It requires a minimum of 30 researchers and R20 million a year — it gets about R500 000 and has three researchers.

● **Wind power** has some interesting possibilities. For generations South Africa has used it for pumping water. Research in South Africa but mostly outside indicates windmill generators could play a useful supplementary localised role.

● **Conservation** if industry and commercial buildings were designed to be energy efficient it should be possible to save as much as half the energy required by buildings and a quarter by industry. The way car engines were modified after the oil crisis, thus dramatically reducing oil consumption, has shown what can be done when the need is there.

26/9/82 (55) S. Express 26/9/82

Atom chiefs bar Israelis

VIENNA — The future of the International Atomic Energy Agency has been thrown into doubt by a vote to bar Israel from its annual general conference in Vienna.

The United States said today it was taking a new look at its policy towards the IAEA and Western diplomats said the reappraisal could have serious consequences for international co-operation in control of nuclear technology.

Delegations from the US as well as the European community, Canada, Australia and Japan walked out of the meeting after its vote to reject Israel's credentials.

Before leaving, the US delegation's chief, Mr Kenneth Davis, announced the intention to make the reassessment because, he said, the US could not accept the degree to which the United Nations agency had become politicised.

Its assigned role is to further the peaceful use of nuclear energy and prevent its diversion to military use.

Informed sources said IAEA's Third World technical aid could be hit if the US cut its voluntary contributions to the IAEA. But they did not expect the IAEA nuclear safeguards budget, to which the US contributes about 25%, to suffer.

An Israeli spokesman said the vote to exclude his country was arbitrary and politically motivated.

Communist East European states joined Arab and Third World ones in voting for suspension. Some South American states voted against it. Egypt was the sole Arab state abstaining.

● China has hotly denied a New York Times report that it had sold low-grade enriched uranium to South Africa and other countries trying to develop nuclear weapons. — Sapa-Reuters.

Chairman's review

Successful operations by all the divisions of our group led to a very satisfactory third year for Sasol Limited. Consolidated after tax profit for the year was R199,7 million, representing an increase of 20% over last year's figure. For the first time, Sasol Two contributed towards the profits of your company. The profit of Sasol Two was R69,6 million. After deducting the loss of R20,2 million brought forward from the previous year, it was possible to declare a maiden dividend of R46 million. By virtue of your company's 50% interest in Sasol Two, the contribution from this source to group after tax profit, was therefore R23 million.

Continuity of production at Sasol Two improved considerably during the second half of the financial year and the plant on occasion produced at its full design capacity. It has been demonstrated that all of the individual production units are capable of producing at or beyond their design capacities.

A further notable achievement at Secunda was the successful commissioning of the first phase of Sasol Three. Production units representing 50% of overall capacity from gasification to final oil refining are now operational and commissioning of the balance are proceeding according to schedule. Gas was produced at Sasol Three less than three years after the project had been approved and the first liquid fuels after three and a half years. Although construction accounts have not yet been closed, we are confident that the project which is now 98,5% complete, will be concluded within the original budget of R3 276 million.

Although, as predicted last year, the increase in group profit is largely due to the Sasol Two dividend, Sasol One and its subsidiaries continued to be the backbone of group income. Despite the higher company tax rate and the cut-back in petroleum based Sasol One activities to make way for increased production from indigenous sources at Secunda, the overall contribution of Sasol One to group earnings still showed a modest increase.

This achievement is largely due to a considerable improvement in the efficiency of operations at the Sasolburg Works and at the Natref refinery, increased interest earned on short term investments as well as increases in the prices of certain products thus counteracting the cost squeeze predicted last year.

During the past year, the international energy situation was characterised by the relative weakness in dollar prices for crude oil. This notable change in the earlier trend of spiralling oil prices, led to the cancellation or postponement of a number of synfuel projects in various parts of the world. Most knowledgeable observers agree that this is a regrettable development. Rather than sitting back and enjoying the relief of a temporary softness in crude oil markets, the industrialised countries of the West should be intensifying their efforts to establish synthetic fuel and other alternative energy projects.

South Africa can consider itself fortunate in that it already possesses a practical structure for investment in synfuel projects. Moreover, the Government is continuously striving to adjust and improve this framework to facilitate investment in new projects. I am glad to say that there is increasing evidence of the general acceptance by potential investors in synfuels and by the Government that, whatever adjustments may become necessary from time to time, a uniform tariff protection should be applicable to all producers of liquid fuels from indigenous sources. This is essential to prevent a misallocation of resources and to ensure that the most economic production methods are adopted. A further essential prerequisite for a favourable investment climate in synfuels is the continued assurance that the prices of locally produced synfuels will in the longer term remain linked to international fuel prices.

In the chemical industry adjustment to the present structure for the promotion of new investments are under consideration by the Government. We are particularly pleased that matters under scrutiny include the competitive structure of the industry, price control

proposals related thereto, we believe that, wherever it is decided to retain price control, it is of vital importance not to remove the incentives for each member of industry to increase productivity and optimise the overall efficiency of its operations. It is difficult to achieve this objective if differential prices, based on differences in operating cost, raw material cost and age of plant, are made applicable to various members of the industry. Differential price control will not only guarantee a return to the less efficient but eliminate the possibility of an improved return for the more efficient members of the industry concerned. Therefore, uniform price control, just as uniform tariff protection, is an essential prerequisite for encouraging new investments and for ensuring that the most economic production methods are employed.

The optimal utilisation of your group's cash resources and cash flow is receiving continuous attention. From our cash flow planning it is apparent that we will not be able to tackle major new projects over the next few years. Three areas of priority will largely absorb available cash flow.

In the first place, considerable cash amounts will be required for production optimisation of the two complexes at Secunda. As stated in my previous report, the elimination of bottlenecks and plant improvements in order to reach optimum production capacity, will have to receive a high priority for a number of years to come.

Secondly, the ageing of the Sasolburg Works will require the investment of substantial amounts for replacement and renewal of plant and equipment.

Thirdly, it is in the interest of shareholders that the group's cash resources be conserved as far as possible with a view to the acquisition of Sasol Two. It is still not anticipated that this will take place before 1984 as foreseen in the 1979 prospectus.

For all these reasons, capital investment in other projects over the next few years may have to be limited to smaller investments in pursuit of the group's objective of improved balance between its upstream- and downstream petrochemical operations.

Reverting to the financial results of the past year, group profit before tax increased by R66,0 million to R347,8 million. After tax profit of R199,7 million, however, did not increase proportionately due mainly to the recent increase in the company tax rate.

Group turnover increased by R228 million to R1 691 million.

A final dividend of 13 cents was declared, bringing the total dividend to 24 cents per share. This compares with 20 cents per share for the previous year. A total amount of R90 million was declared in dividends for the year.

Apart from the dividend received from Sasol Two, the increase in profit is mainly due to a satisfactory improvement in the profitability of all the main activities of the group. It was particularly gratifying that the operating costs associated with oil refining could be maintained at approximately the level of the previous year, despite severe cost inflation in the interim.

Improved operations at the Sasolburg Works leading to an increase of 7½% in gas production, also made a substantial contribution. Due to the ageing of the Sasolburg Works, rising costs due to inflation could not be as satisfactorily contained as at Natref, but this was offset by increases in the market prices of several products produced and sold by the group. The latter also compensated for the reduction in throughput of some of the petroleum-based activities at Sasolburg resulting from the increased production at Secunda. Finally, the general increase in interest rates led to a substantial increase in net interest earned on short-term investments.

The Sasol organisation is well equipped to deal not only with the immediate, but also the longer term, challenges which lie ahead.

Some of the more immediate challenges

biggest underground coal mining complex in the world at Secunda Collieries, which is already producing at the rate of 17 million tons per annum;

- to reach continuous production at full capacity at Sasol Two and Sasol Three;
- to optimise the operation of the Sasolburg Works and in particular to develop further the programme for the systematic renewal, replacement and modification of the facilities, some of which have now been in operation for nearly 30 years;
- to bring to fruition the new Secunda Fertilizer project and the establishment of the marketing organisation of our fertilizer division;
- to optimise the marketing of the rapidly increasing production of fuels from Secunda;
- to optimise the production and marketing of the broad range of chemical products handled by our chemicals division. Chemical sales currently total nearly R400 million per annum.

This brings me to the profit outlook for the 1982/83 financial year. Sasol Two is expected to show a further increase in profit and the dividend contribution from this source to Sasol Limited's profits should accordingly also show an increase. This is likely again to be the main contributor to growth in group earnings.

The down-turn in the economy will affect some of our operations more than others. We have, for example, already seen a reduction in sales of pipeline gas by Gascor. Throughput of crude oil refining and naphtha processing could be affected, not only by the production increase at Sasol Two and Sasol Three, but also by a likely reduction in the growth rate of the demand for liquid fuels and plastics. A further uncertainty concerns product prices, most of which are due to the nature of our business, a function of international crude oil prices, and of course, the R/\$ exchange rate.

Profit estimating for a year such as the current one is quite a sensitive operation. On present indications I do, however, foresee an increase in after tax profit. Bearing in mind the uncertainties referred to, it would, however, be unwise to predict a rate of expected profit growth.

Conclusion

It is now three years since the South African government had the courage to place Sasol in the private sector. This bold step and the undertaking given to prospective shareholders that uniform treatment would be given to Sasol and other members of the chemical and petroleum industry which created the necessary investor confidence, largely contributed to the success of Sasol in recent years.

I wish to record my appreciation to the management and staff for their great efforts at all levels. The good results of the past year could not have been achieved without the most strenuous of efforts by all of them.

One of our general managers, Mr H R Wiggett, retired after more than 27 years' loyal and valuable service to the company. I extend a special word of thanks to him for his contribution to the success of Sasol.

During the year, Mr J L J Bezuidenhout and Dr A H Stander became executive directors. We welcome them and are indeed fortunate to have men of their calibre join an already exceedingly strong board.

I sincerely appreciate the loyalty and constructive support received from all my co-directors during the year.

D P de Villiers
Chairman

24 September 1982

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24 September 1982

SASOL

CA76 Times 27/9/82

Koeberg fire 'no threat'

Staff Reporter

HAD the Koeberg nuclear power station been operational at the time, no threat to the safety of the nuclear reactor would have been posed by the recent fire, which caused an estimated R350 000 in damages.

This is one of the findings of a 10-man board of inquiry headed by Mr I O Jones, a senior engineer on the staff of the operations department at Megawatt Park, Sandton, into the electrical fire at Koeberg on July 18 this year.

The board was unable to determine the detailed cause of the initiation of the electrical fault and the ensuing fire, as the damage caused within the switchboard prevented conclusive analysis.

Metallurgical tests have not confirmed the possible presence of foreign bodies within the switchboard.

The board of inquiry, which represented both Escom and the French contractors building the power station, found that no circuits essential for reactor safety were fed from the switchboard in which the fault leading to the fire developed.

The board also said the controlling circuits of the switchboard essential for reactor safety were duplicated, so any similar fault in the switchboard would pose no threat to the safe operation of a reactor.

Staff of Escom and the contractors had put out the fire in 25 minutes, using portable extinguishers.

Procedural adjustments in maintenance work have been recommended by the board to reduce the possibility of a similar future occurrence.

Municipal Reporter

CONFUSION surrounds the electricity subsidy which Port Elizabeth is to get as part of the Government's concessions for this area.

A spokesman for the Decentralisation Board has said the money was ready to be paid out this week.

But the Town Clerk, Mr P K Botha, said no forms had been received from the board. He will be in Pretoria today and will investigate the matter.

The electricity subsidy has been plagued by doubts and delay.

In April, the Government announced its decentralisation policy which included a multi-million rand package of concessions for this area. They included a subsidised electricity tariff equal to the lowest tariff anywhere (that of the Eastern Transvaal).

However, the White Pa-

E. Post 27/9/82 (55)
**PE Town Clerk moves
to clear up confusion
on electricity subsidy**

per stipulated that the concession applied only to Escom power and ignored the fact that Port Elizabeth generated 60% of its own power at Swartkops.

The position was clarified in July when representatives of the Decentralisation Board visited the city and said subsidies on electricity tariffs would include electricity supplied by the municipality — an effective 25% to 30% discount.

It was estimated then that by September Port Elizabeth's consumers and

the industrial sector would start receiving rebates.

But Port Elizabeth is still waiting for forms on which to claim its subsidy.

This was confirmed by both the deputy City Treasurer, Mr E D Landsberg, and Mr Botha.

The deputy chairman of the Decentralisation Board, Mr P Kotze, said the funds were available and the board was "keen to pay as soon as possible," probably this week.

A letter and a certificate had been sent on September 9.

Mr Kotze said there had been a delay in implementing the Government's concession as it had been difficult to determine on what basis the subsidy should be worked out.

"This electricity subsidy is the most difficult thing I have ever come across," he said.

Port Elizabeth's tariff was supposed to be brought in line with that paid by the Eastern Transvaal.

"But if you study tariffs in Nelspruit, Witbank, Middelburg and other Eastern Transvaal towns, you

find they all have varying Escom tariffs.

"Now with which one do you compare Port Elizabeth?" he asked.

After general investigations the board had then done an "about turn" and worked on the basis of the unit consumption at peak periods.

Eventually, a formula had been worked out and the board was now ready to pay subsidies.

Port Elizabeth had been asked to give its total income from electricity and its unit consumption at peak periods.

Mr Botha said he had searched his correspondence and could find no record of any such form.

He is determined to sort out the muddle in Pretoria today.

Consumers might start reaping the benefits of the concession in the next few months.

Forms for PE's ^{g. Post} electricity rebate ⁽⁵⁵⁾ to be completed ^{28/9/82}

Municipal Reporter

PORT ELIZABETH'S Town Clerk, Mr P K Botha, returned from Pretoria today armed with the forms from the Decentralisation Board on which the city's electricity subsidy can be claimed.

It was discovered this week that the board had funds available to pay out subsidies as part of the Government's economic concessions.

According to a spokesman for the board the forms had been sent out but Mr Botha said he had not received them.

While in Pretoria yesterday he went to the board and collected the forms.

He learnt that R29 million was waiting to be paid out to municipalities and industries which qualify for

concessions in terms of the Government's decentralisation policy.

Port Elizabeth's municipality will receive a discount of 25% to 30% on its electricity bill and rebates will be passed on to consumers.

Mr Botha said he had organised a special meeting later today. He, the City Treasurer, Mr A Strydom, and the Deputy City Electrical Engineer, Mr W Atteridge, would fill out the forms.

"This is a No 1 priority. We will send them off as soon as possible," he said.

The forms appeared very simple — they would only have to give the city's total income from electricity and the number of kilowatts of electricity generated an hour, he added.

Power subsidy — no word from board yet

D. Dispatch 29/1/82

EAST LONDON — No word has been received from the Decentralisation Board yet on when the electricity subsidy to the city, which was effective from April 1, will be paid.

Payments to electricity consumers in the city, all of whom are to benefit from the subsidy,

are now five months in arrears.

The City Treasurer, Mr John Howell, said yesterday he did not know when the first payment would be made by the government.

"We will only know what is going on when we get the money from the Decentralisation Board and we can see what figures they have been working on," he said.

"But right now everyone seems to be utterly confused. I see from the

papers that the Port Elizabeth city council is also confused over how the subsidy is going to work."

The Port Elizabeth council is reported to have raised the matter with the decentralisation board through the Town Clerk.

Meanwhile, the deputy chairman of the board, Mr P. Kotze, has said that the money for the subsidies is now available and that the board was keen to start payments this week. — DDR.

Whose Boasements Have a Bomb?

A proliferation of recent books on South Africa's nuclear capability no longer ask if this country can make an atom bomb, but how many have already been made and stockpiled.

An estimate that South Africa has a stockpile of 10 nuclear devices is made by former atomic science bulletin editor Samuel Day in his new book "The Afrikaans Bomb" (sic).

Day's estimate is based on the amount of enriched uranium — with plutonium the main ingredient of an atom bomb — which should have been produced by the giant Valindaba enrichment plant before it reaches full-scale production of 50 tons a year in 1985.

Day also says it is now fairly easy for Valindaba to make the highly concentrated weapons-grade nuclear explosives for bombs.

The plant has produced 45 percent enriched uranium as an emergency supply for the Safari nuclear reactor, which the Americans have refused to supply with fuel for years. This, says Day, can easily be re-enriched to the 90 percent required for a full-fledged nuclear weapon.

Statements about the 45 percent enrichment were made by the Minister of Energy, Mr. F. W. de Klerk, and for

Have a Bomb?



Jaap Boekooi discusses a style of diplomacy which involves playing a kind of nuclear blind man's bluff and counterbluff to create deterrence by revealing nothing.

purposes" of nuclear research. But South Africa still falls short in the means to deliver a nuclear device.

Israel and Taiwan need the "gunpowder" but have extensive technology to deliver the bomb, not only in aircraft and missile systems, but also in radar and anti-missile systems. To them, the use of missile-prone Mirages as carriers would be primitive.

This scenario suggests that the three countries would do swaps — material for technology. For all three have different needs.

South Africa, as has been said many times, has no need or use for an atomic bomb. It cannot be used against guerillas in a border area, and its use on cities housing anti-Pretoria guerillas is unthinkable and would create an atmosphere of deterrence by pure silence.

According to this line of diplomacy, by refusing to say whether it has atom bombs or not, South Africa can

It was an extraordinary statement and led to much speculation which by now has died down.

But one observer long involved with nuclear affairs told me recently: "I think Mr Botha's statement was a nuclear red herring. South Africa is in a position of strength and will never sign the Non-Proliferation Treaty. And so the game of

bluff and counterbluff continues and whatever bombs there may be they remain solidly in the basement.

South African-born nuclear strategist, Professor Jack Spence believes they would emerge only when all that is left is the "apocalyptic option." Of all local subjects in South Africa the "Pretoria bomb" remains the most unmentionable.

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...to make the highly concentrated weapons-grade nuclear explosives for bombs.

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Statements about the 45 percent enrichment were made by the Minister of Energy, Mr F W de Klerk, and former director of the Atomic Energy Board, Dr Ampie Roux, giving rise to suggestions that South Africa was trying to "tell" something about its nuclear capabilities.

Another nuclear book, "Two Minutes over Baghdad," written by Israel's Uri Bar-Joseph and Amos Perlmutter, with Harvard University researcher Michael Handel, speculates on nuclear cooperation between South Africa, Israel and Taiwan.

This has led, the authors say, to nuclear warheads which can be fired from a 155 mm cannon; tactical weapons which can explode over a target 40 km away from firing.

On the heels of this came the announcement this month that Armscor had produced a new 155 mm cannon, the G6. This, as the announcement said coincidentally, could fire a Nato nuclear warhead accurately at a distance of 40 km.

This distance is the ideal one in the phase where guerilla and conventional warfare start to overlap. But Armscor has denied it possesses nuclear shells.

The "Baghdad" authors again talk of a 155 mm cannon when they say this was the

weapon used to fire a nuclear warhead which caused the now notorious "double flash" 8000 m above the South Atlantic in September 1979, an event which caused world headlines and was seen as a sign of a South African explosion.

This, and allegations of close nuclear cooperation by the Israel-South Africa-Taiwan "pariah axis" mentioned by the "Baghdad" authors, is part of the flurry in international nuclear circles which has intensified since 1977.

In that year Russian and American satellite photo interpreters concluded that a series of constructions in a part of the Kalahari could only be a preparation for a South African underground nuclear test.

South African policy, as expressed by the Atomic Energy Board then and now, has been to deny the allegations, speculation and insinuations, to reiterate the country's commitment to peaceful nuclear purposes, and to maintain the lowest possible profile.

Nothing here of the open bragging match between traditionally hostile countries such as Pakistan and India, shaking their fledgling atomic fists at each other, with concurrent talk about an "Islam bomb" and waging a nuclear Jihad (holy war).

South Africa's diplomacy in nuclear affairs is much closer to Israel's, a country estimated to have a nuclear stockpile of 200 bombs, according to the CIA and the "Baghdad" authors.

Both represent a style known as "bomb in the basement" diplomacy. This aims at playing a kind of nuclear blind man's bluff and counterbluff to create an atmosphere of deterrence by pure silence.

According to this line of diplomacy, by refusing to say whether it has atom bombs or not, South Africa can achieve much more than by demonstrating a bomb, which would have a destabilising effect.

Israel has developed this policy to a fine art. But also in South Africa a former Prime Minister is known to have expressed the view that the world must be kept guessing.

That view implied strict observance of a ban on the nuclear boast among government spokesmen, and there have been none of these for some years since the Finance Minister, Mr Owen Horwood, came close to one.

If Taiwan is included it appears that all three members of the alleged "pariah axis" are committed to bomb-in-the-basement diplomacy, especially because if there is nuclear co-operation, and one breaks the bond of silence, the others could easily be implicated.

This is, nuclear observers say, the scenario of such co-operation:

South Africa has the "gunpowder" for the bomb and the technology to make it. This would be a matter for Armscor to refine, and the Atomic Energy Board could quite correctly continue to reiterate the "peaceful

55 29/9/82
This scenario suggests that the three countries would do swaps — material for technology. For all three have different needs.

South Africa, as has been said many times, has no need or use for an atomic bomb. It cannot be used against guerillas in a border area, and its use on cities housing anti-Pretoria guerillas is unthinkable and would risk retribution, possibly even involving a superpower. But South Africa, in a conventional war, could find good uses for a tactical nuclear shell, such as one fired from a 155 mm cannon.

Taiwan, on the other hand, thinks it has an urgent need for nuclear bombs. For if it were attacked by mainland China an armada of ships would have to be used, a perfect target for nuclear weapons.

Israel's needs, the scenario writers say, fall between those of the two other countries, with more accent on materials than technology.

Now for the great paradox.

Earlier this year the Minister of Foreign Affairs, Mr Pik Botha, threw a large spanner into all these scenarios and speculations, the bluff and counterbluff, by announcing that the Government was "considering" signing the global agreement banning all nuclear weapons, the American-inspired Non-Proliferation Treaty.

Mr Botha was, in fact, trying to say: "We have made no atom bombs, and we promise not to make or use them. If we have made any, we will defuse them. And you can come and inspect our Valindaba plant to see whether we make any nuclear explosives there and to inspect the books which show to whom we sell enriched uranium."

O. B. Spalding 3/19/52

Electricity for Buffalo Flats extensions?

EAST LONDON — The government has not ruled out the possibility of supplying electricity to the housing estates planned for Buffalo Flats extensions 2 to 7, according to the vice-chairman of the Coloured Management Committee, Mr A. V. Green.

Mr Green issued a statement this week after a meeting between the CMC and a director of the Department of Community Development, Mr E. McEnery.

"The various problems relating to the envisaged development of the area were amicably resolved," Mr Green said. "Mr McEnery advised us that additional revenue could be obtained from sources other than his department."

Mr Green said several people had complained at the meeting about a Community Development directive declaring

that the houses in Buffalo Flats should not have painted walls, floor coverings, or electricity.

However, these objections were "resolved" after discussions with Mr McEnery.

Mr Green said Mr McEnery assured them the government would not delay the sale of houses in Parkside, and was considering selling houses in Parkridge and C. C. Lloyd township.

At the end of the meeting, Mr Green said, the CMC's chairman, Mr F. N. Barlow, had asked the government to keep the channels of discussion open "since misconceptions invariably cause unwarranted discord within committees".

After the meeting, Mr Barlow also said a report-back meeting would be held in Parkside soon to discuss specific problems in Buffalo Flats extension 1. — DDR

ENERGY

1982

OCT. — DEC.

Relief for plastics producers

Sasol will spend R100m on renewing old equipment at Sasol One this year.

Sasol MD Joe Stegmann says: "The investment is needed partly because this plant is already 30 years old and partly because its operations were hurt when we withdrew resources and key personnel to start up our new facilities at Secunda. The lean period is now over and we are restoring efficiencies to previous levels; some activities such as coal gasification will be even slightly more efficient than before."

In another change at Sasol One, the production of two vital plastics feedstocks, ethylene and propylene gas, will be drastically reduced. Ironically, this could lead to a reduction in plastics prices this year, or will at least arrest the upward spiral.

The plant has been producing these feedstocks on old "crackers" from expensive, petroleum-based naphtha. And local plastics producers which have been buying at high prices have long been urging their closure.

The resulting shortfalls should not cause too many headaches. Sasol is assisting Sentrachem, its main propylene customer, to build up stocks of polypropylene plastic. If these run short, any number of overseas producers, hard-hit by the world recession, will be more than willing to supply at competitive prices.

Polyethylene plastic, made from ethylene gas, is also freely and cheaply available on world markets. But SA's two

polyethylene producers, Sentrachem and AECI, will have virtually no need to import because Sasol is now producing sufficient ethylene gas through a relatively cheap process from coal at Sasol Two in Secunda.

Yet reduced local production will not mean an increased dependence on overseas suppliers for these plastics. As they are made from crude oil at Sasol One, any production drop will reduce the country's imported crude oil requirements.

The objectives of the capital expenditure at Sasolburg are conservative. Only marginal increases in output over previous best figures are expected, even though there are sufficient reserves at the nearby 5.5 Mt/year Sigma colliery to support greater throughput.

Most of the investment will go on two new boilers to generate steam needed for the coal gasification process.

Oxygen is another input in this process. But facilities to produce this gas will not be expanded because Sasol One's requirements can be supplemented by its oxygen plant at Secunda — the biggest in the world. The oxygen will be conveyed by a pipeline which directly connects the two centres which are 200 km apart.

The line runs alongside two other gas pipelines which have been installed to optimise usage of the company's total production of these materials. One will carry ethylene gas, and the other Gascor gas which is provided to industry as a fuel and feedstock through a pipeline network covering the PWV area.

Gascor sales for the first two months of this year are 6% down on the same period last year when total sales were down on the 1980 figures. Stegmann says Gascor sales are a very sensitive indicator of the country's economic activity.

Union Steel Corporation is one new cus-

tommer which could support Gascor sales even if the economy remains stagnant. Its revolutionary new direct reduction plant designed to produce 250 000 t/year of sponge iron will run on vast quantities of Gascor gas (see "Usco breakthrough").

As production of synthetic fuels at Sasol Two and Three increases, the country's imported crude oil requirements will fall. This means that conventional fuels production at Sasol's Natref crude oil refinery in its Sasolburg complex will also fall. This is provided for in an agreement between all conventional oil refineries to cut back production by the same proportion as Sasol synfuel output rises.

Stegmann says Natref is the country's most efficient oil refinery; it produces a white fuel yield of about 86% compared with 65%-70% for the others.

Increased synfuel production also means a higher share of the liquid fuel market for Sasol. Part of this increased volume will go through additional Sasol pumps being installed at most filling stations in the Sasol supply region of the Transvaal and OFS, the rest will be blended with brands of other marketers.

"Some years ago we negotiated bulk selling arrangements on a commercial basis with other fuel marketers," says Stegmann. "There are certain quantities which we are obliged to supply, and they are obliged to purchase. We cannot unilaterally disclose these arrangements."

On the question of other alternate fuels, he says: "Proposed petrol additives will not solve the country's potential petrol/diesel imbalance and other alternatives raise further problems relating to application and distribution."

"So far synthetic petrol and diesel produced from coal are the only alternative fuels with a demonstrated success."

Paper No. I
(to be copied from the header)

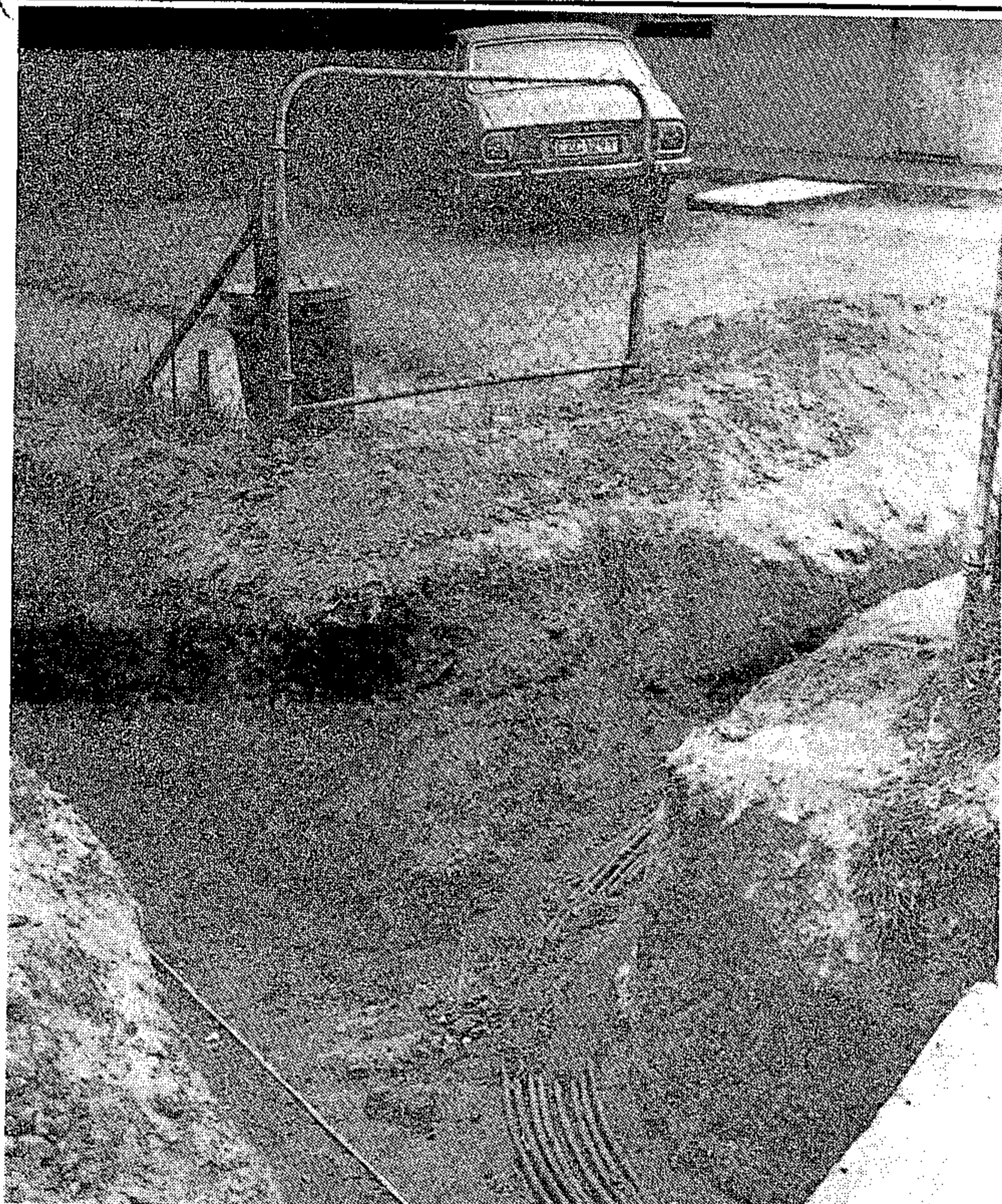
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2. Blue or black ink must be used for written answers. The use of a ball point pen is acceptable. Red or green ink may be used only for underlining, emphasis or for diagrams, for which pencil may also be used.
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2. Candidates are not to communicate with other candidates or with any person except the invigilator.
3. No part of an answer book is to be torn out.
4. All answer books must be handed to the commissioner or to an invigilator before leaving the examination.

Any dishonesty will render the candidate liable to disqualification and to possible exclusion from the University



CAR PRISONS: If your car's inside, that's where it'll stay.



BIG CROSS-OVER: Mr George Meyer preparing for his wife.

Death lurks outside every door

2/3 55 Sowetan 4/10/82

By LEN KALANE

TRENCHES have become a nightmare in Soweto.

And the community have expressed their disgust by renaming the curse "Thebehali Holes."

Gaping holes as far as the eye can see. Sand, dust, mud. And it's all in the name of electricity and storm waterpipes.

Officialdom say Sowetans will have to put with these monstrosities for another two years at least, for only then will the great switch-on campaign have been completed. Perhaps.

The whole thing has something to do with the infrastructure of the place. The "upgrading" of Soweto.

Smart Aleck

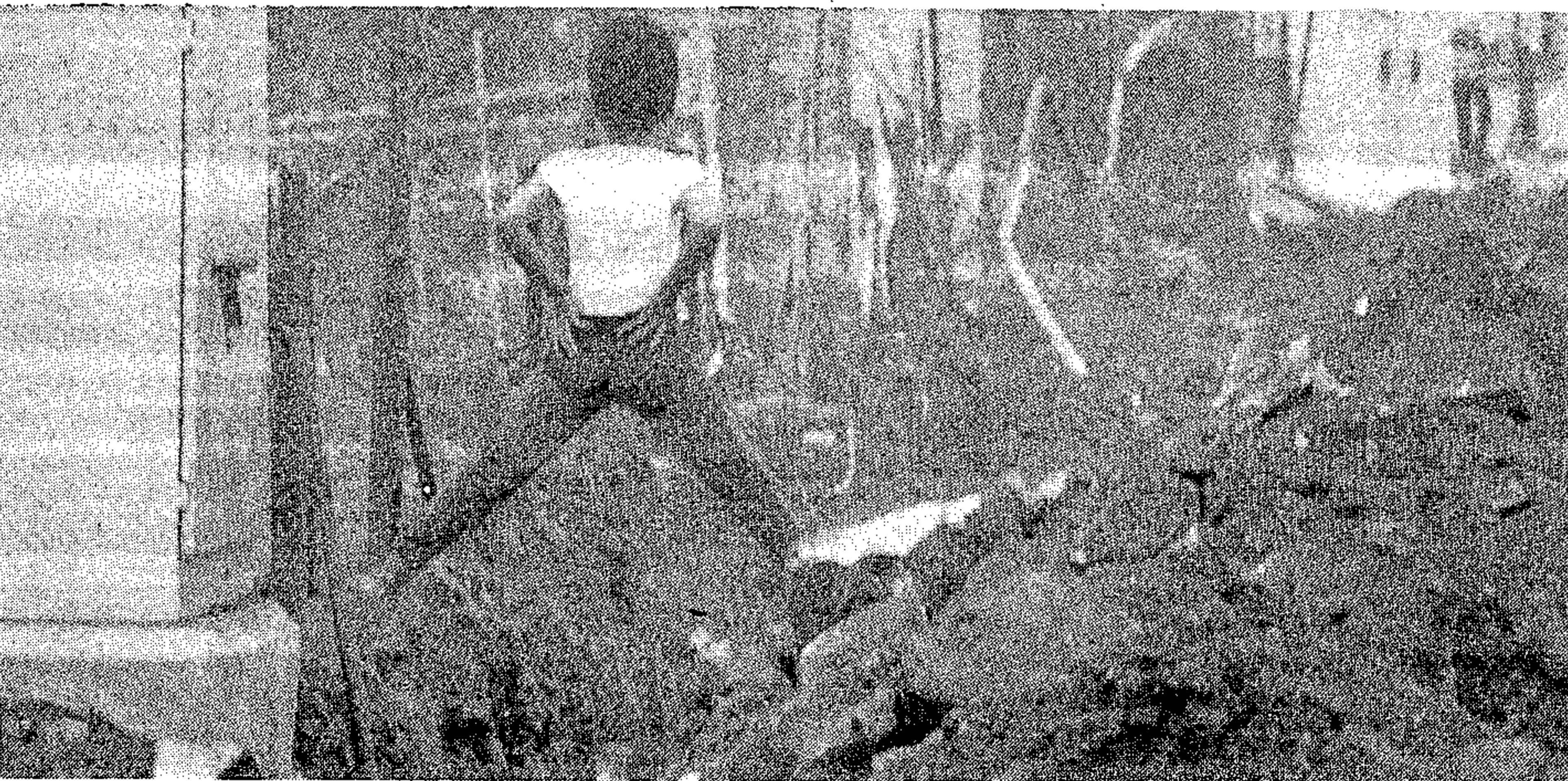
Ha! People laugh. Why now? They should have thought about it before they build the houses and removed us from Sophiatown.

Before Lower Houghton was built, said one smart aleck, pipes were already laid. There was already electricity, everything. Why fool with us?

One old lady told me that when they were moved to Soweto during her days, it was like buying a car without an engine. "I'm talking about this infrastructure my son," she said. "To us lay people infrastructure simply means the "inside".



AT WORK: The start of another trench in Meadowlands.



DEATH TRAP: Dangerous playgrounds for kids.

They mean death! Broken necks and legs. A nightmare which keeps housewives awake at night when hubby is out on a drinking spree.

Then there's the poor motorist. Taxis are having it tough. They are a death-trap for a person in an automobile.

But for pedestrians too. It is on record that the trenches have already claimed five lives, and as the toll seems to be rising, authorities appear to be stumped by the continuing accidents in the open trenches.

So, who is to blame?

Mr George Meyer of Meadowlands was found placing a cross-over across a trench dug in front of his gate.

Rainy Seasons

"Tell me," he asked, "How do they expect my wife to jump over this thing when she comes back from work? What about my children?"

This is one thing about the Sowetan trenches; if your car is out of the yard, it stays there. If it's inside the yard; it will still stay there, as long as the trenches stay there. You are as good as without a car.

Mrs Emma Dlamini was seen criss-crossing in a street full of trenches in Soweto.

"These holes have proved extremely dangerous to me. I'm old and I can't see properly."

Some desperate residents have started filling trenches in their yards and outside gates and driveways.

And while authorities avoid the issue, blame each other and make more grand schemes, the rainy season approaches. And one wonders who will be the trenches' next victim.

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Report ⁵³
of oil ^{Ston}
off Cape ^{5/10/82}
coast

By Jaap Boekkooi

The rig Sedco K has struck oil at sea 110 km south off Mossel Bay, according to reports from the town.

The strike is a major one, say sources in exploration circles. Oil was seen gushing under great pressure from Sedco K's strike pipes.

It is said to be Soekor's biggest success in the 15-year offshore oil search, which has cost just over R300 million.

The strike was made in 118 m of water on the Agulhas Bank above porous structure with oil potential. The area has yielded encouraging results from other holes drilled there by the rig.

But previous finds have been of gas and lower quantities of oil condensate — not conventional oil.

Soekor would not comment on the strike today. But it is believed a statement is being prepared and that Soekor's chairman, Dr Dawid de Villiers, will fly to Johannesburg today to appear on television.

It will not be known if the strike is economic until more drilling has been done in the promising structure.

Soekor's managing director, Dr Piet van Zyl, has said Soekor's ideal is to explore a medium-sized oil field offshore.

BIG OIL FIND OFF MOSSEL BAY

AKGAS
5/10/82
(55)

SOEKOR — the State-backed oil exploration corporation — has made what is believed to be a major oil find in the seabed about 70 miles south of Mossel Bay.

The strike was made by the American rig Sedco K and was confirmed today by Soekor officials.

Soekor's information officer, Mr Mike Leibrandt, declined to give details about the discovery and said that a full statement would be made later today.

He said that the statement would probably be released by the Minister of Mineral and Energy Affairs, Mr Pietie du Plessis.

120 m DOWN

The Sedco K is operating in about 120 m of water on the Alpha Bank — very near the sites where strong flows of gas and petroleum condensate were made in 1978 and again last year.

Tests showed that the find last year would produce 1,58 million cubic

metres of gas and 145 metric tons of condensate (light oil) a day.

Although no official details have yet been released, it is understood that the latest discovery is the most encouraging in South Africa's 15-year offshore search for oil.

MORE DRILLING

Sedco's senior representative in South Africa, Mr Peter Kerr, declined to comment on reports of the strike and said: "We are under contract to Soekor, so anything you

want to know will have to come from them".

The Alpha Bank forms part of the enormous Agulhas Bank — regarded as the continental shelf.

Soekor's managing director, Dr P J van Zijl, has pointed out previously that any "wet find" will have to be followed up by a series of further holes to determine the full size of a field and decide whether it would pay.

SA ARGUS
6/10/82
oil (SS)
find
not so
great

Political Staff

EAST LONDON. — The oil find off Mossel Bay was the first to deliver oil for South Africa in appreciable quantities, the Minister of Energy and Mineral Affairs, Mr P T C du Plessis, said yesterday.

Unfortunately, Press reports had given the impression that a big oil reserve had been found, he said.

A borehole 136 sea miles south-west of Mossel Bay had struck oil over the whole thickness of a chunk of sandstone. The sandstone was 3 297 to 3 562 m under the sea.

"The oil is a good quality light oil with a density of 50 degrees API or a specific gravity of 0,78.

ENCOURAGING

"The gas consists of about 70 percent methane and the rest carbonous gases," Mr du Plessis added.

While encouraging, the flow was not economic and the importance of the find depended on more holes which were being drilled in the area.

Eighty-five metres of the most promising part was tested and the best flow was 900 barrels of oil and 3,2-million cu ft of gas a day.

Durban to object to Eskom tariff charges

55 Mercury 6/10/82

Municipal Reporter

DURBAN is to appeal to the Electricity Control Board for a bulk discount which could save consumers R20-million next year.

The City Electrical Engineer has been authorised to lodge an objection to the tariff Eskom charges and to ask for a 10 percent discount.

Yesterday Mr Ken Dibb, Assistant Electrical Engineer, explained: 'We feel Eskom's tariff is not cost-related. They merely base their tariff on the grounds that they don't make a profit or a loss and set a tariff

that brings in enough revenue to balance their books.

Durban is the largest buyer of bulk electricity in the country but we are charged exactly the same rate as a consumer who takes only 5 percent of our load,' he said.

Mr Dibb said the city had budgeted to spend R200-million on electricity for this year. If the control board agreed to the 10 percent discount the benefit would be passed on to the consumer in savings on future increases.

Eskom tariff increases have averaged 35 percent in recent years. There are two tariff structures, one based on coal prices and a basic charge. The coal-linked tariff tends to be a creeping increase every month as consumers' accounts are automatically adjusted.

The other starts off on a basic figure approved by the control board, less 25 percent. Eskom then increases the tariff by reducing the discount until it gets beyond the basic figure. It then introduces surcharges until the tariff reaches the stage where it is 25 percent higher than the basic figure. Then Eskom goes back to the control board to settle on a new basic figure less 25 percent.

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Angola is reported to be operating about 30 MiG-21 Soviet-built fighter aircraft from bases at Cuvelai and Miondo, about 200km from the SWA/Namibia border. The aircraft are flown by Cuban and Soviet pilots.

Defence Force spokesmen in Pretoria would not say last night whether yesterday's incident was being regarded as an escalation of the conflict.

"At this stage we are still regarding it as an incident," an SADF source said.

SA warning

In East London, the Minister of Defence, General Magnus Malan last night warned MiG fighter pilots in Angola to "watch their step or we will clobber them".

Asked in an interview what South Africa had been doing in Angolan air space, he said: "There is a build-up of arms in the area."

He said it should be recalled that only a month ago South Africa had accused the Cubans of creating missile sites in the area.

"Recce flights over the area are quite normal," said General Malan.

"If they violate our border we must do something about it. If they don't stop, we must do something about it."

He said the MiG was "good in the air".

"The result shows that we have the courage, the training and the ability," he said.

● US 'taking wishes as realities', page 5

Cape Times Funfinder

Looking for weekend entertainment? You will find it in **FUNFINDER** the new Cape Times supplement that tells you all you need to know about the entertainment scene in one colourful package. Look out for it on Friday morning.

Mid-week specials — over 100 cars for sale on page 18



CLASSIFIED ADVERTISEMENTS
BEST OF VALUE TO YOU

Oil find not 'economically viable' now

CAPE TIMES 6/10/82

55 226

By GORDON KLING

CRUDE oil has been found off the South African coast in significant quantities for the first time in the 14-year search for the elusive "black gold", although the find at this stage is not economically viable.

In almost simultaneous announcements yesterday, the State's exploration undertaking, Soekor, and the Minister of Energy Affairs, Mr Pietie du Plessis, said the find by the American rig, Sedco K, was 136 nautical miles south-west of Mossel Bay.

The structure in which it occurred is adjacent to that where the F A 2 borehole produced a major gas and gas condensate find in December, 1980.

The extent of the discovery has already prompted Soekor to make plans to accelerate its drilling programme in the area as soon as one more well has been drilled elsewhere.

According to Soekor sources, however, "considerably more" than the 900 barrels a day oil-flow tested at the borehole, designated E/G 2, would be required before it could be regarded as commercially viable.

Mr Du Plessis said early press reports had been wildly exaggerated.

But a measure of the excitement generated by the find can be gauged by comparing it with the previous discovery in the area in 1978, with a flow of only six barrels.

Making a special announcement at the National Party congress in East London after a telephone message from the chairman of Soekor, Mr Dawid de Villiers, Mr Du Plessis said the E/G 2 borehole had produced oil over the entire thickness of a sand-bank, stretching from 3 297 to 3 562 metres below sea-level.

"A total length of 85 metres of the most promising of the intersection was tested and the best flow of oil was 900 barrels a day and 3.2 million cubic feet of gas a day.

"The gas consisted of about 70 percent methane and the remainder of carbo-hydrate gases."

Soekor sources yesterday told the Cape Times that further testing would be carried out today.

Soekor's description of future plans does not suggest a major strike has been made.

Society mortgage

Staff Reporter

ANOTHER rise in home mortgage bond interest rates has been announced by one of the smaller building societies but so far there is no indication that others will follow suit.

The Standard Building Society is raising its bond rates by one percent from November 1.

Its rates now spread from 15.25 to 18.25.

Cape Times
Bazaar
INFLATION
SA
NOW IN FULL

Apologizes to the Queen

Mr Fagan apologized to the Queen during his trial at Buckingham Palace — and during this week's case shouted: "The palace is setting me up."

After accepting the evidence of the psychiatrists that Mr Fagan had a split personality and was a threat to "a certain person", the judge said hospital treatment was neither a punishment nor a sentence. He would be treated as a patient, not a criminal.

But the judge said that Mr Fagan had to be held in a top security hospital because his Buckingham Palace exploits showed he had the skill to escape.

The psychiatrists had said it was impossible to say how long it would take to treat Mr Fagan before he could be released.

But his counsel, Mr Maurice Nadin, said that Mr Fagan could be a free

and healthy man within months.

In a statement written before Monday's verdict, Mr Fagan said: "Along with everyone else in the world, I love Her Majesty the Queen. I have the deepest respect for her and I will do nothing to embarrass her."

"Your Majesty, please excuse my intrusion into your privacy. I didn't realize it would become a world topic."

"All I wanted to do was to discuss my personal problems, but the way I went about it has embarrassed Your Majesty's family."

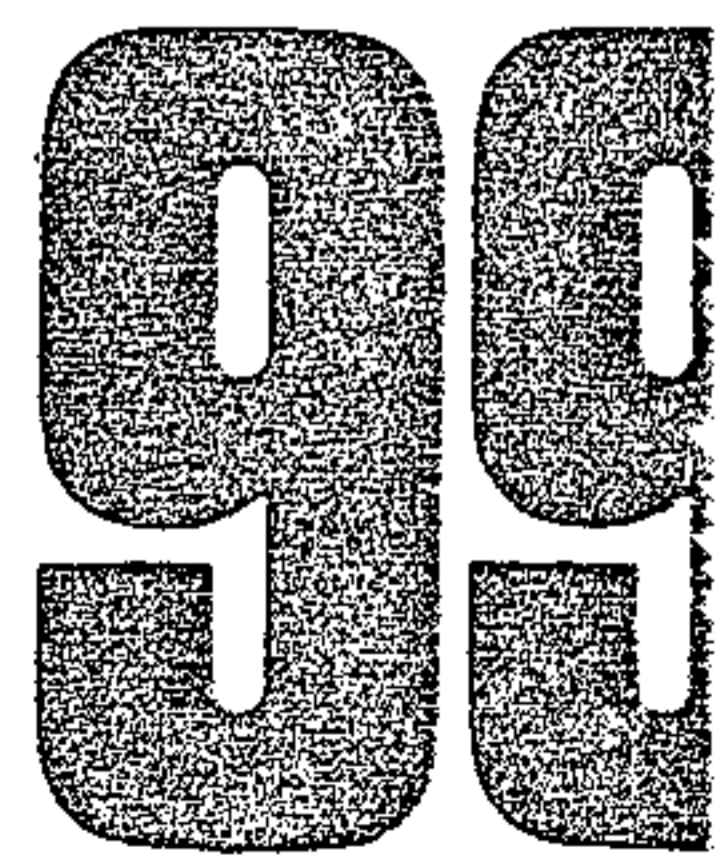
"You were wonderfully understanding with me and I know you will accept this apology which is written with all sincerity. Humbly, Michael."

2	Weather	23
6-8	Classified	16-22
23	Look at today	23

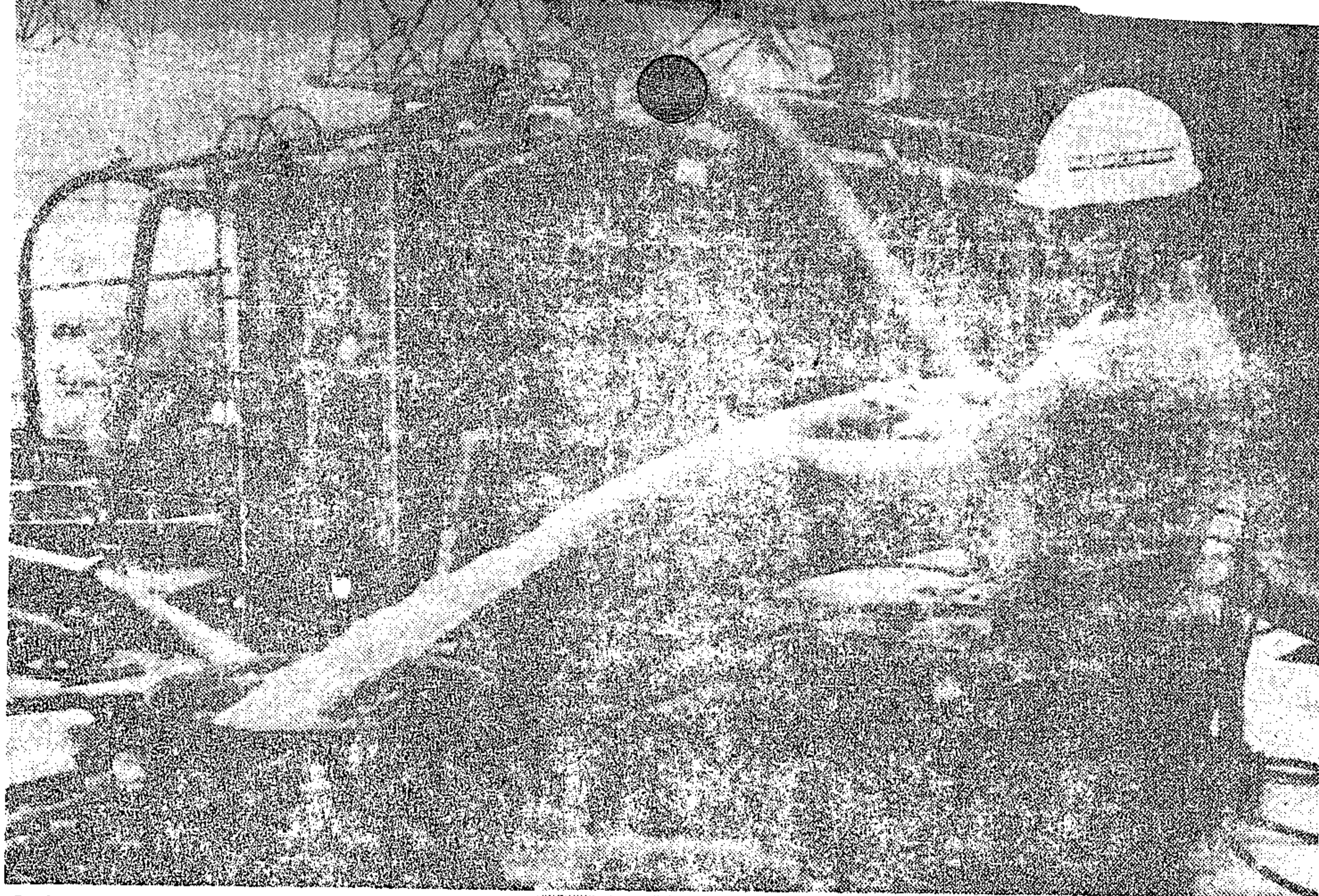
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Cinema	8	Horoscope	23	Transport	9
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Pink, blue, green



Gran MONEY



Soekor reservoir engineer Mr "Nols" Berger with the light crude oil being pumped up by the Sedko K rig.

6-month wait (55) slow 6/10/82 to know worth of new oil find

By Stephen McQuillan

South Africa will know in about six months whether it is set to become an oil-producing country.

The indications so far give no reason to doubt that the latest oil find, 110 km south of Mossel Bay, could put South Africa in the oil business.

The Southern Oil Exploration Corporation (Soekor) is "reasonably optimistic" about the discovery — by far the biggest in an area long thought to be promising.

The corporation says the strike is extremely important because:

● it has untapped vast quantities;

● the oil discovered is good quality.

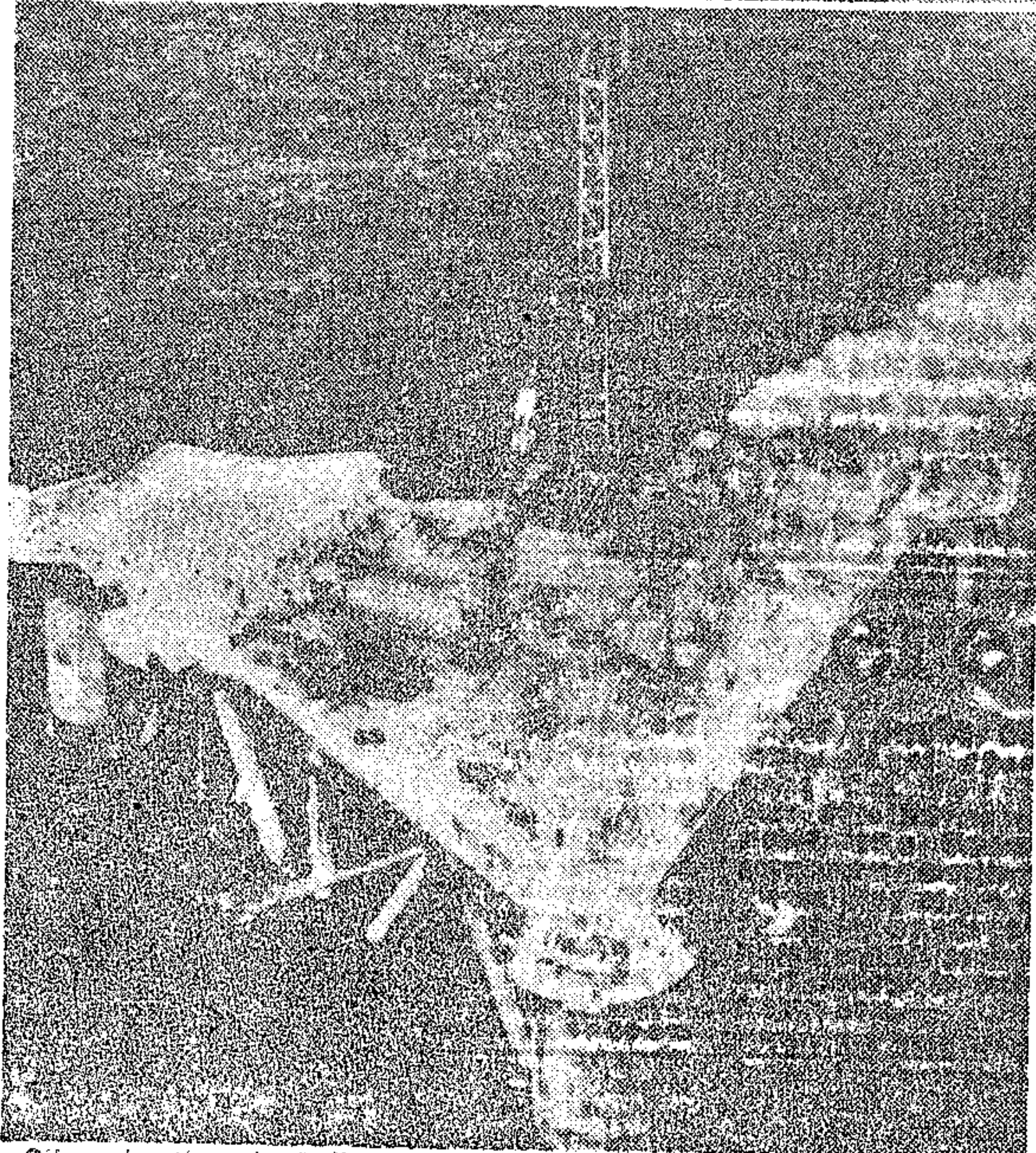
The oil from this strike can be compared to light oils from the Middle East.

About 27 percent of this type of light oil is usually refined for use in car engines. A further 23 percent is naphtha, a light fuel oil, while 14 percent is kerosene, about 20 percent diesel and 12½ percent heavy diesel.

The oil would need less refining than thick crude and would be a valuable additive to the crude supplied to South African refineries, says Soekor.

But before produc-

To Page 3, Col 2



Oil exploration rig Sedko K over the oil strike off Mossel Bay. The rig, on hire to Soekor, has been drilling for oil off the South African coast since 1975.

continued



Staw
Strike may open up SA oil industry
6/10/82

1. Composition
 The year's two components
 (a) tests
 (b) assignments
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2. Award of marks
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3. Contribution
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 (b) assignments
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4. A UCT paper
 however the Year's work

▶ from page 1
 tion can be considered
 Soekor has to establish whether there is enough oil in the area to make it viable.
 The new well is estimated to be capable of producing 900 barrels a day, a barrel being roughly the size of the old "44-gallon drum" seen in garages.
 Soekor has struck oil before but in insignificant quantities—around six barrels a day.
 Some wells in major fields, like the North Sea fields, produce about 900 barrels a day. But there have to be many wells of this magnitude to make production viable.
 Soekor is now preparing to launch an intensive investigation of the area. A seismic survey is planned to gather

more data to establish the most promising locations for further drilling operations.
 Once the locations are established a concentrated drilling operation will begin in the area.
 A Soekor spokesman said: "It is good news for us. We have found oil for the first time in quite large amounts, and it is of good quality."
 He said production of 2 000 barrels a day could be considered economical from one well.
 "Several wells in the North Sea are producing less, but the production is collective," he said.
 "We are reasonably optimistic we can find more oil in large enough quantities."
 The development is the first indication that the 15-year search — which has cost about R300 million — may be beginning to pay off.

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- (6) papers 1-3 plus orals

For the IIIrd year course:

- (6) papers 1-3 plus orals
- (7) second language papers 1 and 2

5. The marks for the weekly tests and for the assignments are posted on this board week by week.
6. Students with a First Class pass in AL I qualify for a Lestrade Scholarship in AL II.
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You are invited to elect one representative to represent your interests in monthly departmental meetings. The term of office is quarterly, renewable for one year.

[Signature]

OIL: SAUDI MAY BE PRODDUOER SOON

Argus Correspondent

JOHANNESBURG. — South Africa will know in about six months whether it is to become an oil-producing country.

Indications so far give no reason to doubt that the latest find, 110km south of Mossel Bay, could put South Africa in the business.

The Southern Oil Exploration Corporation (Soekor) is "reasonably optimistic" about the new discovery — by far the biggest — in an area long thought to be promising.

The corporation said the find was important for two reasons:

- The strike has untapped vast quantities; and
- The oil is of good quality and can be compared to Middle East light oils.

Less refining needed

The oil would need less refining than thick crude and would be a valuable additive to the crude supplied to South African refineries, said Soekor.

But before production can be considered Soekor has to establish whether there is enough oil in the area to make it viable.

The well is a capable of producing 900 barrels a day (a barrel is about the same size as a 44-gallon drum).

The corporation has found oil before, but in insignificant quantities — the wells producing about six barrels a day.

Some wells in fields like the North Sea produce similar amounts, but there have to be many to make production possible.

Intensive investigation

Soekor is preparing an intensive investigation of the area. A seismic survey is being planned to gather more data in an effort to establish the most promising locations for further drilling.

Once the locations are established a concentrated drilling operation will begin. A Soekor spokesman said: "It is a high-quality light

oil — not black crude.

"It is good news for us. We have found oil for the first time in quite large amounts and it is of good quality."

Production of 2 000 barrels a day could be considered economical from one well, added the spokesman.

Collective production

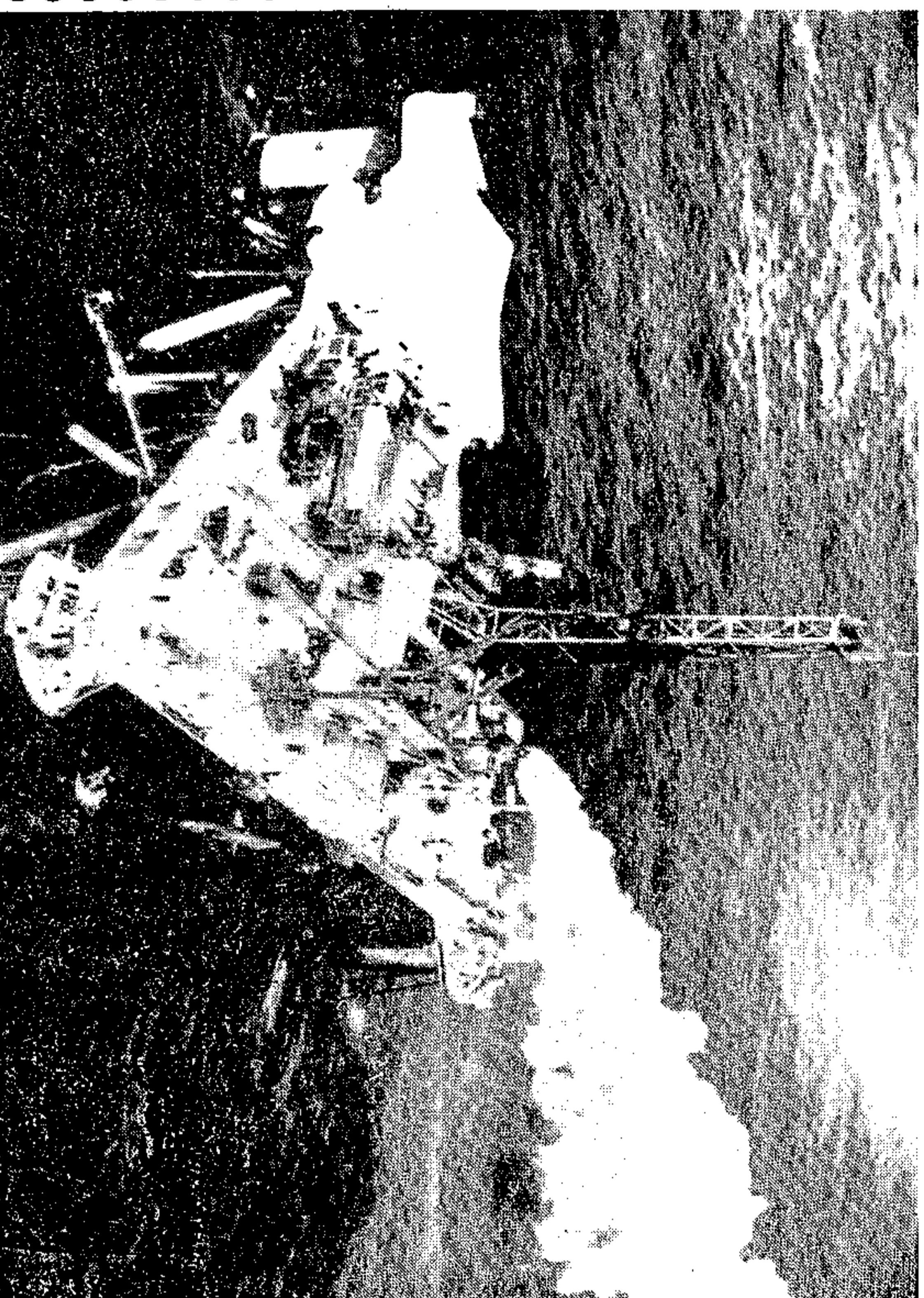
Several wells in the North Sea were producing less, but the production was collective," he said.

"It is difficult to compare the two regions because conditions are different.

"We are reasonably optimistic that we can find more oil in large enough quantities."

The corporation's next step is to plug the well — discovered by the rig Sedco K — until it can be established how much oil is available.

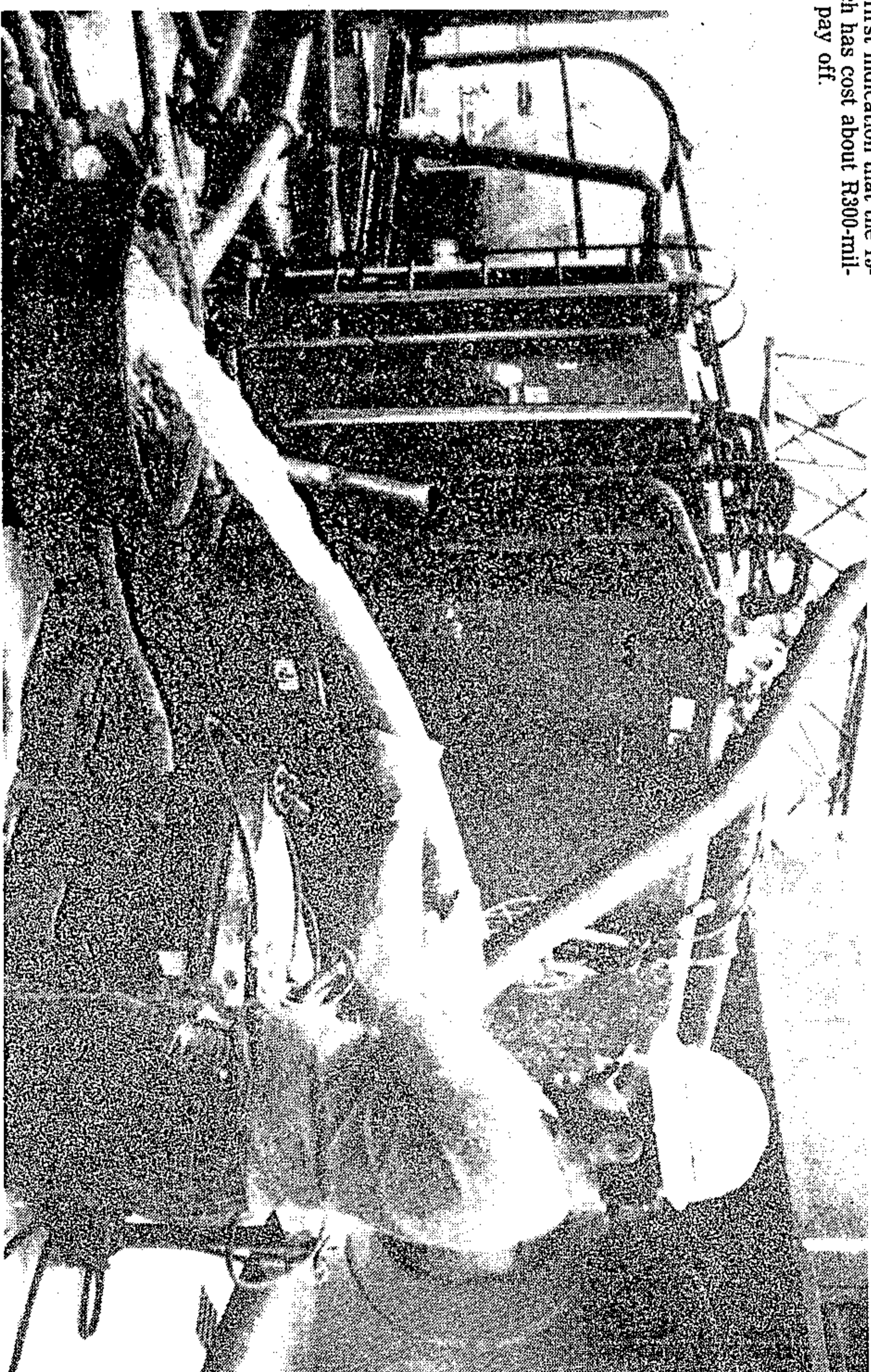
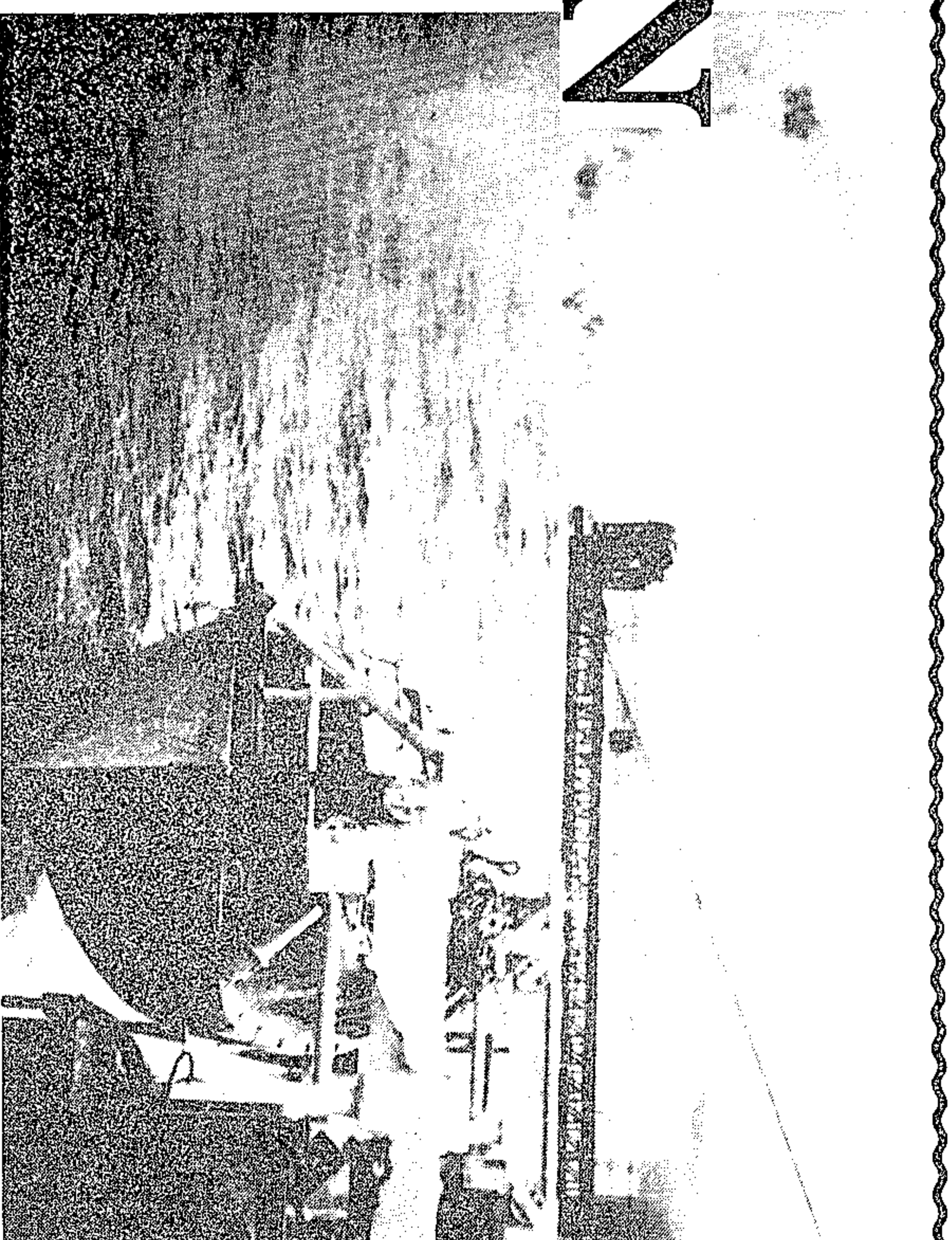
The development is the first indication that the 15-year offshore search, which has cost about R300-million, may be beginning to pay off.



ABOVE, right: Flames spurt from the flare boom of the oil exploration rig Sedco K after oil was struck off Mossel Bay. The rig, on hire to Soekor, has been searching for oil in South African coastal waters since 1975. The present strike is the most promising so far, but it is not economical and its importance will depend on further probes in the area.

LEFT: The Sedco K over the oil strike off Mossel Bay.

RIGHT: A Soekor reservoir engineer, Mr Nols Berger, with the light crude oil being pumped up by the Sedco K rig.



High electricity bills spark row in Soweto

55 (24) ROM 3/10/82

Five months after the Soweto Council launched an investigation into high electricity bills, a Dobsonville councillor, Mr Steve Kgame, claims the situation has worsened.

But the council's deputy chief executive officer, Mr G J Jacobs, says complaints have fallen drastically.

Mr Kgame said: "We are beginning to get fed up about the high bills. There are people getting bills for R200 and more."

The situation was getting worse by the day, he said, blaming meter readers for this.

"They don't read the meters and in some cases don't turn up for more than a year," Mr Kgame said.

Mr Jacobs said that after the council's investigation the results had been very good.

"The main problem at this stage is accounts in arrear. A considerable amount is due," he said.

A council survey showed average bills were from R12 to R35.

On meters not being read, he said: "At one stage that was a problem. But it was solved long ago. The main problem is arrear accounts."

The Soweto Council investigation was launched after complaints this year of astronomical bills — also reported last year.

A Legal Aid spokesman said complaints were still being received, but not so many.

Dr Nthato Motlana, chairman of the Soweto Committee of Ten, said he was surprised complaints had declined.

Mr Kgame said

people were paying their accounts because they had no alternative.

"They are being held at gunpoint. What can they do? They come from work, they want to cook, they have to pay," he said.

Dobsonville Council chairman Mr Don Mmesi said: "We still have complaints, although not as many as before. We are meeting this month to analyse the situation. We don't know what the cause is."

Mr Jacobs said Soweto residents were paying 3,5 cents a unit, among the top rates in the Johannesburg area.

Randburg users paid 2,254 cents and in Sandton the charge was 4,442, a spokesman said.

Mr Jacobs said installation and service charges were incorporated in the monthly bill.

un finished in 2nd part

Is oil hunt paying off?

By Jaap Bockkooi

It has taken 17 years, almost 200 holes in the ground, and R300 million for South Africa to find its magic moment — the first significant oil discovery.

It took Australia — another country where American prospectors said "they will never find oil" — 20 years.

South Africa's search for the slippery commodity has been relatively cheap.

R300 million is only eight percent of a new Sasol plant which, at most, will contribute 20 percent to the country's oil needs — and eat up a coal field in the process.

TARGET

Soekor, first under Dr. Franz Quass, and then under Dr. Piet van Zyl, has been looking for an oil field for years — on land and at sea.

The target was a field, as Dr. Van Zyl said, that would produce at least 100 000 barrels a day for about 30 years — equal to 28 percent of the country's present oil thirst.

That would make South Africa at present consumption and with the three Sasols' 48 percent contribution,

At last—

a slick

of hope

more than three-quarters independent of Opec's oil sheiks, which in practical terms would ward off any boycott threat.

The Mossel Bay strike is not South Africa's first oil find — but the first of useful oil.

At Kirkwood and Colchester, near Port Elizabeth, Soekor land drills struck small pockets which bubbled out at 40 barrels a day. And south of Mossel Bay the FA2 hole drilled by the Sedco K rig brought 145 metric tons to the surface daily.

But geologists were

hardly pleased. The Colchester oil was as thick as chocolate mousse, and the sea oils were light condensates that tended to evaporate if somebody breathed hotly over it.

Because oil is the only vital mineral not found in this country, Soekor left few stones unturned in its search which started when the late Dr. H. F. Verwoerd opened the first drill-rig at Kareebosch in the central Karoo in 1965.

At one time Soekor made an investigation after an old man had had persistent dreams of an oil field. At other

times, diviners who thought they could "see" oil underground, were taken for tests.

With the latest technology, Soekor's sea rigs will be able to go out much further to sea and operate in 400 m of water.

The Mossel Bay strike comes at a good time — and after the Government had cut Soekor's budget by R10 million.

Decisions on new Sasols and on whether commercial methanol plants should run on coal, or Soekor's sea gas discoveries, can now be made sooner and more easily.

WORK

The sea drilling programme will be advanced, for it brings satellite structures on the continental shelf within reach of promise, and refines the options on where to drill.

It will also give about R1 000 million of work to the engineering industry if an oil platform and marine pipes result from the find although all this may take 10 years to build and commission.

No wonder that, as every successful oil search shows, everybody simply gushes over your first gusher.

Post Reporters

THE Government subsidy on electricity would temper the blow of an Escom increase of 15,4% for the Port Elizabeth area, the City Electrical Engineer, Mr Charles Adams, said today.

Announcing the general average increase of 16,3% from January, Escom's senior general manager, Mr I D van der Walt, said the price of coal delivered could add another 2% to the increase during the year in terms of existing coal contracts.

Mr Adams said today the "blow" for consumers would be softened by the Government subsidy. The exact amount by which tariffs would rise had still to be worked out.

Port Elizabeth generated some of its own power and this would affect the adjustment of tariffs.

Forms by which a subsidy could be claimed were recently completed by the city authorities. Once a lump sum had been received from the Government, rebates would be paid to consumers over the next "few months", he said.

The picture would alter in January.

The subsidy was worked out by bringing the area's electricity tariff into line with the lowest tariff applicable in the country — that of the Eastern Transvaal.

However, the Escom tariff in the Eastern Cape rises by 15,4% in January, while the tariff in the Eastern Transvaal will rise by 17,9%.

Mr Adams said he expected the Government subsidy would be "slightly less" from January 1.

Mr Van der Walt said in Johannesburg yesterday that the commission regretted that such a large increase had to be introduced, "especially at a time when the economy is slowing down and every effort is being made to keep prices

Subsidy

will ease

Escom's

new hike

15 Post 12/10/82

55-



Mr C ADAMS... temper the blow

down". He said the decision to increase prices was only taken after several factors had been considered.

"Through increased productivity, the use of new management techniques and advanced technology, we had been able over the past four years to keep price rises below the prevailing inflation rate — where electricity in 1980 cost marginally less than it did in 1960."

The continuing high inflation rate combined with the following factors over which Escom had no control had contributed to the increase:

- Interest rates had increased drastically having an effect on loan servicing costs.

- The value of the rand compared to the US dollar declined by as much as 30%, increasing the cost of imported equipment and technology.

- The need to protect the electricity supply system had necessitated improved security measures at all installations.

Mr Van der Walt said he expected that the effect of these factors would be felt in the future, and "it may not be possible to limit tariff increases to the inflation rate".

Future tariff increases would depend on the growth in the demand for electricity, levels of cost escalation and the cost of financing.

The January 1983 tariff increases differ in Escom's various regions.

The highest increases are in those areas which have enjoyed the lowest electricity prices, like the Rand and the Orange Free State, Natal and the Eastern Transvaal.

The lowest increases were in the areas where the price of electricity was historically higher than in areas closer to the coal fields, like the Border, the Western and Northern Cape, and the Orange River.

This was a move to a uniform countrywide tariff, Mr Van der Walt said.

• See Page 3

Silence measured in megatons

(SS)

WASHINGTON — After a two-month summer recess, the US-Soviet talks on the control of nuclear arms have resumed in Geneva. It would not be unreasonable to say that these may be the most important diplomatic negotiations of our time, or any time. The odd thing is that so few people know anything about them.

This is not because there is a conspiracy of silence. Nothing would be more damaging to the success of these talks than daily briefings by the ambassadors for reporters outside the door.

There is a problem, however. Both sides have agreed to keep the details of their day-to-day discussions private, but they have also agreed that the broad principles of their negotiations and the way the talks are going should be made public.

They have been faithful to this on the whole, but there has been very

The nuclear arms control talks in Geneva may be the most important negotiations of our time, writes James Reston.

little analysis in the Press or even in the universities about their different approaches to a question that involves the peace of the world and maybe even the future of the human race.

One reason is that the atomic issues are so technical and complicated that they are beyond the understanding or even the imagination of most people. The United States and Russia both now have about 7500 ballistic missile warheads, enough to blow up the world several times over, and there is endless argument about the comparative advantages of land-based missiles or sea-based missiles, multiple warheads, "smart" cruise missiles and other mysteries.

The Reagan administration is confronted by some influential people



who want a nuclear agreement with the Soviets at almost any cost, and by others who wouldn't risk a deal with Moscow no matter what the Soviets promised.

Accordingly, the tendency is to "leave it to the experts," most of whom nobody knows, and this is also true of

the Press and the universities, which are not concentrating on the control and spread of nuclear power and nuclear wastes, although this may be the most important question for the preservation of the civilisation that such institutions presume to represent.

At least a few American newspapers have spent much thought and money on the education and training of reporters to cover the tangles of economics or the law, and to master the languages of the changing world they have to cover, but most of them have done very little to train people to watch and report on the growth, the possibilities and the dangers of atomic power. This may be the most important "beat" in the journalistic and scientific world today.

Similarly, at least some of America's best universities have schools of Soviet studies and African studies — oddly very few on Middle Eastern or Latin American studies, but none to my knowledge on atomic studies.

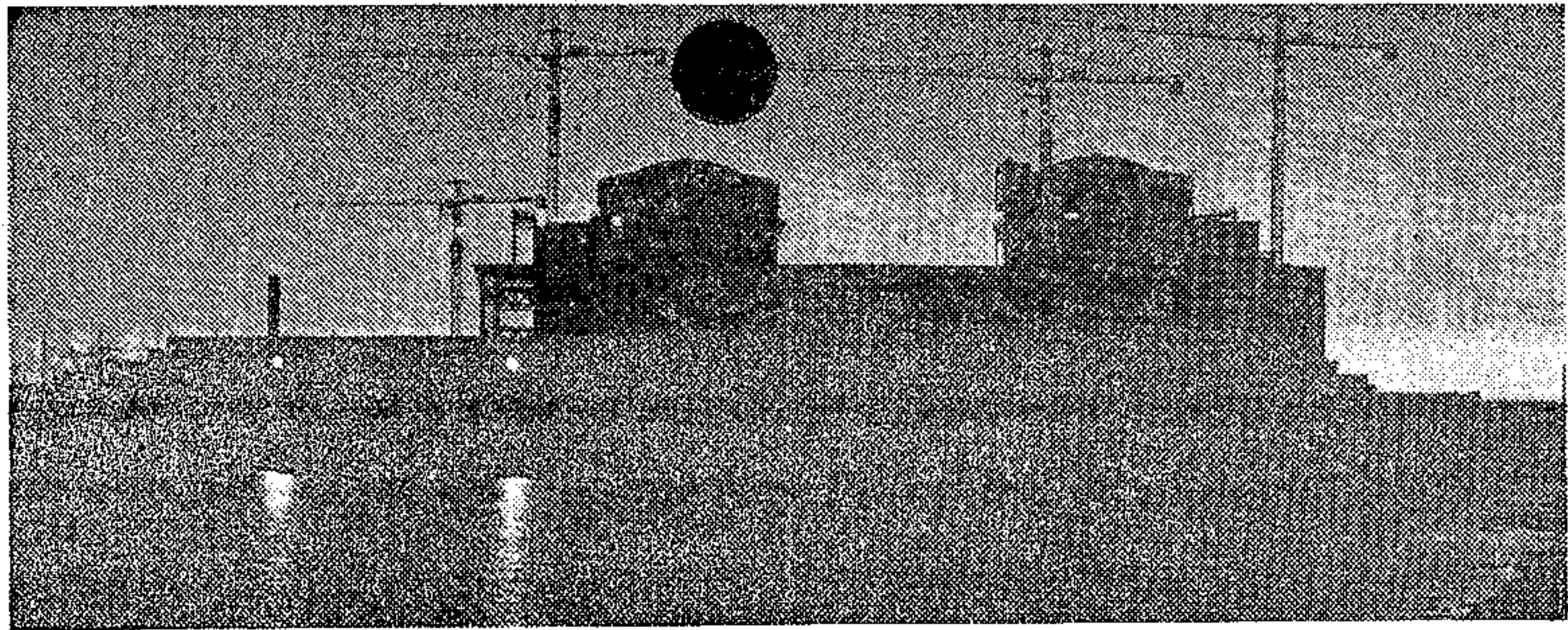
The US diplomats at Geneva claim that America is behind in the development of many atomic missile systems. The Soviet diplomats insist that they are behind the United States in other nuclear weapons.

It reminds me of an argument during World War 2 when the late Adlai Stevenson, then in the Navy Department, was talking to a Soviet diplomat about the delivery of supplies to Moscow. Mr Stevenson protested that the Soviets were behind in defining what supplies they needed. The Russian complained that Washington was behind in delivering the goods. "I have not come here," the Russian diplomat said, "to discuss my behind but to discuss your behind."

Complicated as this devilish subject is, and even admitting that the tangle of arguments about throw-weights and multiple warheads is beyond the ken of most concerned people, it should not be impossible to do a little better in reporting and explaining the issues. Why is it that these two nuclear powers, who are committed to control their own nuclear arsenals and avoid the proliferation of nuclear weapons, are not able to agree on at least a reduction of the weapons that threaten the peace of the world?

If they cannot resolve this problem, they have an obligation to explain it, and the Press and the universities should train the coming generation to keep it up front so that the people can understand what is at issue — which may very well be the lives of their children. — The New York Times.

Sho 12/10/82



Koeberg nuclear power station in the Cape . . . many more of these are needed to save scarce water resources.

Atom power to save water

Electricity: the nuclear option

By Lawrie Bedford

Nuclear power stations in the 21st century will help South Africa save scarce water resources, says an Escom expert.

Escom's senior general manager, Mr I D van der Walt, warns however that such stations are only a partial solution to the water supply problem.

He says it is forecast that after about 2020 no coal fired power stations will be built because all the coal suitable for them will have been committed.

By then several nuclear power stations, mostly at the coast and using sea water for cooling, will have had to be built.

After 2020, however, all new power stations will probably be nuclear Mr van der Walt says.

Many will probably have to be built inland nearer to readily avail-

able sources of water such as the Orange River.

This will relieve the pressure on water resources from the Transvaal river systems as some of the older coal fired power stations are taken out of service.

If all coal based plants were inland and nuclear plants at the coast, between 450 million and 1100 million cu m of water a year would be needed for electricity by 2005.

The maximum potential of Southern Africa's fresh water resources, excluding Lesotho and Swaziland, is estimated to be 34 000 million cu m a year.

Depending therefore on the method of cooling adopted at its new coal fired power station Escom's needs by 2005 will be between 1,3 percent and 3,1 percent of the available water supply.

These percentages are small but South Africa's major coal deposits lie in three drainage areas — the Vaal,

the Olifants-Letaba system and the north and the north-western Transvaal.

Mr van der Walt says none of these areas has spare water resources of any significance.

Despite the fact that its water needs in relation to the total for South Africa, are small, Escom's maximum consumption in 2005 could be 85 percent of the Upper Vaal resources if these are taken on their own.

The water would be committed for many years after 2005 — some of it for more than 40 years.

Clearly water availability could become a serious constraint on the expansion of Escom's future electricity generating capacity.

Mr van der Walt says Escom's overview of the future comes after the 1970 Commission of Enquiry into Water Matters.

The commission emphasised the need for all consumers to use relatively less water more efficiently.

Escom has saved 29 percent water consump-

tion a kilowatt hour — from 3,48 litres in 1970 to 2,46 litres in 1981.

Escom used less than two percent of the 12 200 million cu m of water used in South Africa in 1980.

Mr van der Walt says agriculture, which used about 8 840 million cu m of the annual volume in 1980 has made no comparable or significant saving in water consumption on land irrigated.

A 20 percent saving in water consumption on the Vaalharts scheme would release sufficient water to supply a 3 600 Mw wet-cooled station with its annual water needs.

But if a 25 percent cut in the present volume irrigation could be effected and the water so released made available for electricity generation, enough would be available for wet-cooling all the new coal-fired generating capacity up to 2020.

Mr van der Walt's findings are contained in a paper to the South African Institute of Electrical Engineers.

Continued

N-disaster at Koeberg could cost 350 000 lives

CAPE TOWN—A major disaster at Koeberg could result in the deaths of 350 000 people in and around Cape Town, a University of Cape Town physicist has claimed.

Speaking in a debate at the Cape Town art centre in Green Point about the use of nuclear power in South Africa, Dr David Aschman, senior lecturer at UCT's department of physics, said Escom grossly underestimated the short and long-term death toll from such a disaster.

He said a melt-down—where the core of the reactor becomes exposed and the nuclear fuel melts and burns its way through the reactor shell and into the earth—combined with other circumstances, could lead to 100 000 people being killed immediately, and a further 250 000 dying over a longer period.

But while the death toll from a major nuclear accident would be huge, the probability of one was extremely small, he said.

Speaking in favour of nuclear power use in South Africa, he said the country should have it, but not yet.

"South Africa does not need nuclear power now, because there is still the problem of storage of waste material. Koeberg will have something like 75 tons of uranium fuel in it at any one time. One-third of this will be replaced every year meaning that about 20 tons of waste will be produced annually."

Dr Arnold Abramowitz, associate professor at UCT's Department of Psychology and acting chairman of Koeberg Alert, said South Africa needed nuclear power "like a hole in the head."

"Even using Dr Aschman's figures, which some people would dispute, no insurance company will underwrite the nuclear industry either here or in the United States, because the probability of an accident is not the real issue.

"Insurance companies multiply the probability of such an accident by the cost—in terms of property loss and damage and compensation to killed and injured persons.

"The figure of 350 000 deaths for a Koeberg disaster may be inflated, but even at lower estimates each reactor in the US would cost about R22 million a year in premiums."

Dr Abramowitz said: "What is needed is more financing for other forms of energy, such as come from water, wind, sun and the earth. At present, the ratio of money spent overseas on nuclear as opposed to other energy sources is something like 50 or 100 to 1.

"What the ratio is here we have no idea, because the public has no access to these figures."

South Africa produced 60 percent of Africa's electricity, he added.

Soweto 12/10/82

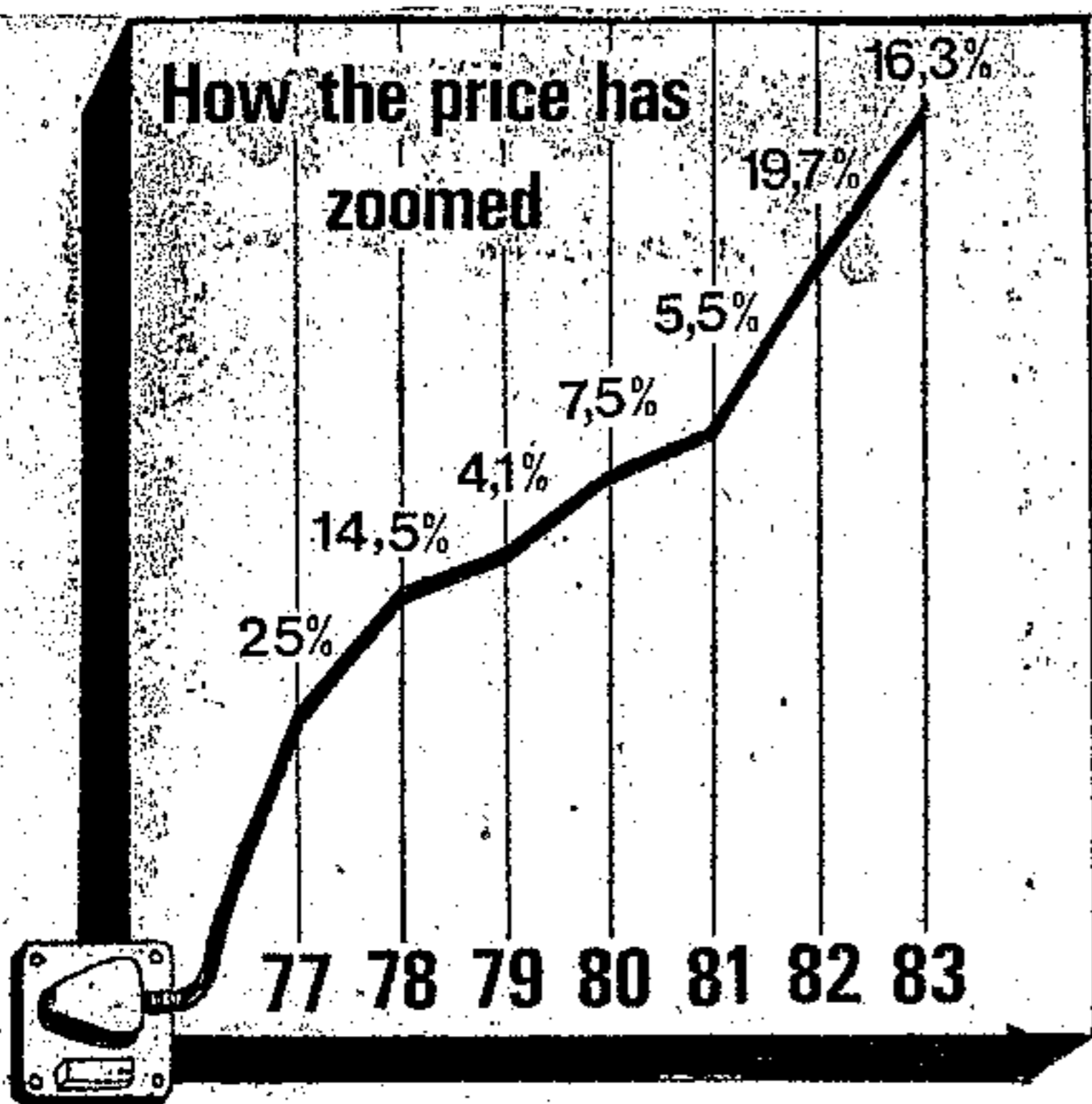
3 000 switch on daily

SS
DA

POWER is being connected in Soweto at a rate of 3 000 houses a month to meet next year's deadline for the completion of the R212-million electrification project.

Already, 25 000 houses have been connected to the new power system and it is hoped that a total of 105 000 will be served when the project is completed in December next year.

General manager of the Greater Soweto switch-on project, Mr Mett van der Spuy, disclosed that the R8-million needed by contractors to complete the electrification of Soweto had been raised, bringing the total cost of the scheme to R212-million.



Escom shock as power costs rise by 16 pc

Escom's tariffs are going up by an average 16.3 percent from January 1. And expected increases in the price of coal may force Escom to increase its tariffs by another two percent later in the year.

Escom's senior general manager, Mr I D van der Walt, said in Johannesburg today the commission regretted that such a large increase was necessary, especially at a time when the economy was slowing down and efforts were being made to keep down prices.

Next year's tariff increases will vary from region to region.

The highest increases will be in areas which have the lowest electricity prices — the Rand, the Free State, Natal and Eastern Transvaal.

The lowest will be in areas where the price is historically higher than in areas closer to the coalfields.

Although the adjustment will not do away with regional differences in prices, it represents a move towards a more uniform tariff for the country, Mr van der Walt said.

Regional increases in electricity prices, excluding increases in the coal prices, are: Rand/Free State: Rand licence area 17.2 percent; Rand and OFS extension area 16.3 percent; Natal 17.1 percent; Eastern Transvaal 17.9 percent; Western Cape 11 percent; Northern Cape 12.4 percent; Orange River 15.4 percent and Border 10.1 percent.

The weighted average Escom total is 16.3 percent.

INFLATION

Increases apply only to electricity used.

Extension charges and other fixed service charges remain unchanged.

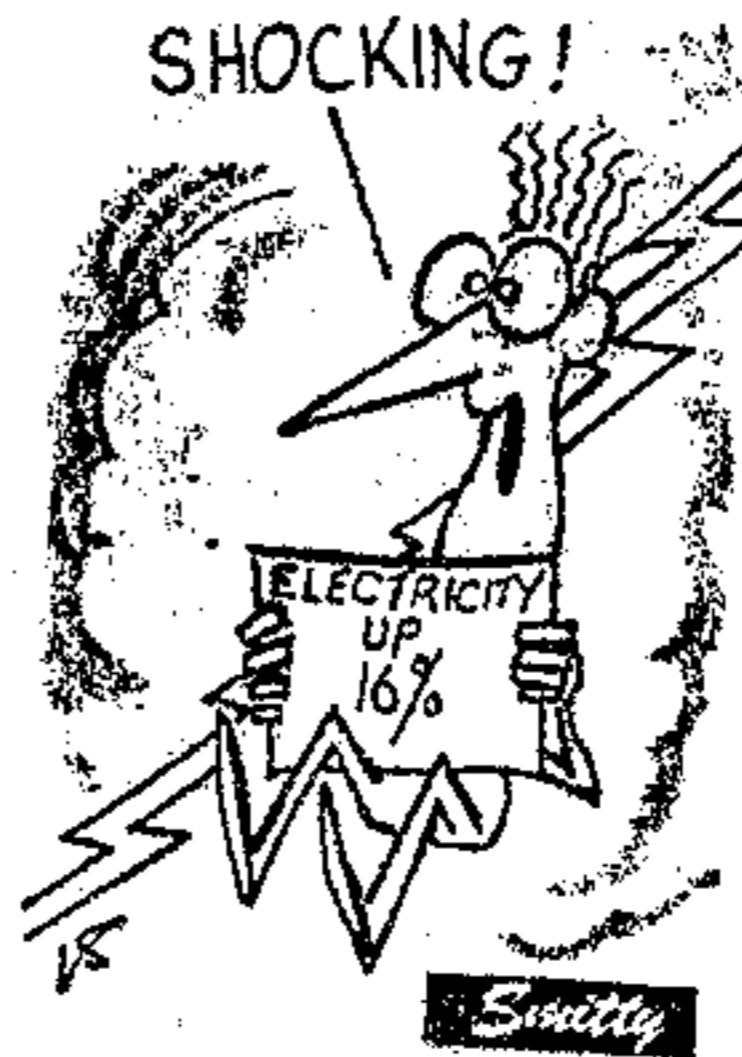
"Interest rates have increased drastically. This has had a profound effect on our loan servicing costs.

"Another factor is that capital expansion is financed from loan capital and about a third of our annual costs is in respect of debt servicing.

"The value of the rand compared to the US dollar declined by as much as 30 percent.

"This means that the cost of imported equipment and technology has shown a considerable increase.

"The need to protect



the electricity supply system has necessitated improved security measures and techniques at all our installations. This, unfortunately, adds to the price of electricity."

JOHANNESBURG

Home owners in the Johannesburg area will pay 8.6 percent more from January 1.

Users elsewhere on the Rand face a 17.2 percent increase.

Johannesburg, generating some of its own power and buying the rest from Escom, has an automatic formula enabling it to increase its own tariff to recover half of whatever the power undertaking levies. In this case, 8.6 percent.

Johannesburg's acting city electrical engineer, Mr R A Leigh, said that working on the basis that the average domestic user used about 900 units of power a month at a cost of R35.37 at the moment, the bill at the end of January would be up by R3.04.

Pretoria residents will probably not have to pay more next year, but residents of Verwoerdburg and other areas around the city can expect to pay about 16.3 percent more.

A Pretoria City Council spokesman said they had anticipated the Escom tariff

To Page 3, Col 1

Escom increases tariffs

from page 1

increases for the year ahead and already adjusted tariffs by an average of 22.5 percent.

Industry and commerce were today counting the cost of the new tariffs.

The gold and coal mining sector face paying an extra R64.7 million a year for electricity in 1983 and the steel industry another R13.8 million.

They paid R397 million and R85 million respectively in 1981.

"It was a severe blow to the mining industry," said the president of the Chamber of Mines, Mr W W Malan. "In the difficult environment in which the industry is operating, this increase is unfortunate and could not have been more badly timed."

A spokesman for the Confederated Chamber of Industries predicted that the tariff increases would have a ripple effect on domestic inflation.

Assocom said it was regrettable that Escom, a monopoly, could not have set a better example of "showing productivity gains which would at least have kept the tariff rises below the current rate of inflation."

Volkas economist Mr Jacob Adams said large electricity users, such as the Railways and Iscor would be affected most by the increased price. He expected them to absorb the new tariffs.

Dismay, satisfaction in Border

EAST LONDON — Local reaction to the Escom tariff increases here ranged from "absolute dismay" to satisfaction. The mayor, Mr Errol Spring, said the Escom move towards equalising tariffs on a national basis "will certainly be to our disadvantage, because it dissipates the concessions we have."

He said he was "absolutely dismayed" that "concessions to the region have been watered down before we even get them."

The president of the Border Chamber of In-

dustries, Mr Dave Saunders, however, expressed satisfaction that the tariff increase for the Border region had been kept well below the prevailing inflation rate.

"For many years the Border chamber has been pushing for the equalisation of tariff rates throughout the country," he said. "I am pleased that

Escom are now moving towards a more uniform tariff."

Mr Saunders said the 10.1 per cent increase for the Border was reasonable if one considered that inflation was running at between 15 and 16 per cent.

The director of the Border Metropolitan Development Corporation (Bomedco), Mr Ted

Mr Ted Walsh, said the narrowing of the tariff gap between Border and the Eastern Transvaal would lessen the inducement for industrialists to move.

"I want to see how this all pans out," he said. The municipality is still studying what effect the Escom increases will have on household consumers.

According to tariff schedules provided by Escom, the new tariffs here and in the Eastern Transvaal will close the gap between the tariffs of the two areas by about nine per cent.

Taking a hypothetical small industry which consumes 10 000 units (kilowatt hours) a month at 30 kilovolt amperes (KVA) from a 380 volt or more system, the present

cost of electricity in the Border (without subsidy) direct from Escom would be R515.05.

Next year, in the same situation, it will cost R52.08 more — R567.13.

In the Eastern Transvaal, the same industry's electricity bill at present would be R361.54 — R153.51 (or 42.5 per cent) less than on the Border.

Next year, the Eastern

Transvaal industry would pay R426.42, an increase of R64.88 (17.9 per cent). Compared with the Border industry, this will be R140.71 (or 33 per cent) less — thus narrowing the differential between Border and Eastern Transvaal by R12.80 (9.1 per cent).

Thus Border industries which qualify for the subsidy to equalise electricity tariffs with Eastern Transvaal industries will, in effect, be getting slightly lower subsidies than at present. — DDR.

But electricity ⁽⁵⁵⁾ UP... BUT

EAST LONDON — Residents here may pay "next-to-nothing" for their electricity next month following the payment yesterday of the R2 million state electricity subsidy.

At the same time, however, comes an announcement by Escom that its tariff for the Border region will be 10.1 per cent higher from next year.

The long-awaited government subsidy was handed over to the municipality by the chairman of the Decentralisation Board, Mr E. C. de Beer, yesterday afternoon.

going to end up paying next to nothing on their next accounts.

Mr De Beer promised yesterday that future payment of the subsidy would be made promptly.

Commenting on Escom's tariff increases, he said he could not pinpoint its effect until he had studied the matter carefully.

area. The average increase is 16.3 per cent.

"Although this adjustment does not do away with regional differences in the price of electricity, it does represent a move towards a more uniform tariff for the whole country," Mr Van der Walt said.

And expected increases in the price of coal might add about two per cent to the increase during next year, he added.

B. Overgaard 13/10/82

Continued ↓

And the cheque — for R2 019 447,47 — means good news for the city's 17 000 electricity consumers when it is credited to their accounts, according to deputy city treasurer Mr Derek Falkenberg.

Mr Falkenberg said the cheque would cover the subsidy from April 1 to July and be implemented "as soon as possible".

"Consumers are going to be credited with the subsidy they are owed on their accounts," he said. "We couldn't refund everyone by cheque — it would mean sending out about 17 000 cheques.

"So some people are

"The electricity subsidy may have to be revised," he said.

The increases — announced in Johannesburg by Escom's senior general manager, Mr I. D. van der Walt — come into effect in January.

The new tariffs will differ from region to region. The lowest increases will come into effect where the price of electricity is higher than in areas closer to the coalfields, namely Border, the Western Cape, Northern Cape and Orange River.

The Border hike will amount to 10,1 per cent, as opposed to 17,2 per cent in the Rand licence

Mr Van der Walt said the increase applied only to electricity used. Extension charges and other fixed charges remained unchanged.

He said Escom regretted that such a large increase had to be introduced, particularly at a time when the economy was slowing down.

In addition to the continuing high inflation rate, other factors over which Escom had no control included increased loan costs, improved security measures and the devaluation of the rand, Mr Van der Walt said.

"It may not be possible to limit tariff increases to the inflation rate.

"Future tariff increases would depend, on the demand for electricity, levels of cost escalation and the cost of financing," Mr Van der Walt said.

Mr R. J. Ironside, president of the South African Federated Chamber of Industries (FCI), said industry regretted Escom's tariff hike which would reflect in the initial cost base and erode national competitiveness.

The president of the Chamber of Mines, Mr W. W. Malan, said the increase in Escom's tariffs was a "severe blow" to the mining industry.

He said last year gold and coal members of the chamber had spent R397-million on electricity.

"This price hike will add about R64-million to their annual bills."

An Associated Chambers of Commerce spokesman said although Assocom acknowledged some of the reasons given for the proposed tariff increases, it believed the extent of the tariff rises would have a strong ripple effect on cost inflation throughout the country. — DDC.

Natal faces 17pc rise in electricity charges

Mercury
12.10.82

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Mercury Reporter

NATAL consumers are to pay 17,1 percent more for their electricity from next January.

Escom announced the increase yesterday and warned that consumers, later in the year, could face an additional 2 percent rise, which would be levied to accommodate an expected increase in the coal price. But if Durban City Council gets its way, consumers in the city's supply area will benefit from a 10 percent discount.

Durban is Escom's biggest bulk buyer in the country, taking 40 percent of all output in the Province and the city has applied for the discount.

Durban supplies areas in the south as far as Kingsburgh, inland as far as Alverston and north to Tongaat.

A spokesman for the city's electricity department said Escom's latest tariff surcharge would push Durban's bill up by another R30 million, which would have to be passed on to consumers.

Impact

But the city had lodged an objection with the Electricity Control Board, requesting a more cost-related tariff.

This would be equivalent to a discount of 10 percent at present levels.

If the discount were granted consumers outside the Durban supply area might be asked to make up the 10 percent to balance Escom's books.

The spokesman said it was too soon to assess the impact on the average household.

The average increase for the country is 16,3 percent, but the Eastern Transvaal will pay 17,9 percent more while the lowest rise is 10,1 percent for Border consumers.

Escom said yesterday that in addition to inflation, drastic increases in interest rates, the depreciation of the rand against the dollar which had increased the price of imported equipment and the need to improve security at power stations, had all contributed to the need for an increase.

Mr Jeremy Whysall, president of the Durban Chamber of Commerce, said that since the proposed rise would be greater than the inflation rate it made 'absolute nonsense' of the Government's anti-inflationary policy.

Deployed

The major thrust of economic policy had moved from protecting the balance of payments to curbing the 'extremely high rate of inflation'.

The Prime Minister's Economic Advisory Council had discussed the matter and set up a committee to see how this could be achieved.

The Durban chamber and Assoccom had long questioned the wisdom of making consumers fund the capital needs of Escom, which should be done by loans.

'The implications for the economy are grave as one administered price increase gives impetus to another,' said Mr Whysall.

Mr Roland Freaques, executive director of the Natal Chamber of Industries, said the increase could only be deployed.

'This is a matter for grave concern since energy costs have shown themselves to be a powerful influence on the inflation rate, which is generally regarded to be the most serious economic problem with which the country is wrestling.'

'Increases of the order now announced are a serious matter and will intensify the effects of the current economic downswing.

'They will have a particular impact on South Africa's competitive position in precarious export markets.'

Cent a litre could put off toll routes

Tvl wants fuel tax for roads

By Sheryl Raine,
Pretoria Bureau

The Transvaal Provincial Administration has asked the Government for a one cent surcharge on every litre of petrol sold in the province to help finance its roads.

The request, backed by the Administrator of the Transvaal, Mr Willem Cruywagen, and the MEC for road transport in the provincial council, Mr John Griffiths, will be considered by the Cabinet.

A formal request for the provincial petrol price increase has already been sent to the Minister of Transport, Mr Hendrik Schoeman.

The one cent surcharge on petrol could bring in R40 million a year.

If approved, the measure would forestall the immediate need for toll roads.

Funding

In recent years Government funding for road building has declined rapidly.

During the 1979-80 financial year R367 million was spent on national and provincial roads, compared with R489 million for the 1975-76 financial year.

In the Transvaal the provincial budget for road building and maintenance has been cut by R300 million in the last five years.

The budget for 1982-83 in the province was 40 percent lower than five years ago.

At the same time the population of the Transvaal is increasing more rapidly than in the rest of the country.

Demands

Industrialisation and homeland development are making heavy demands on road networks.

A Department of Transport source said today the one cent surcharge on petrol would be used initially to construct one road.

It is believed the road is the Golden Reef Road between Krugersdorp and Brakpan which has already been singled out as the country's first major urban toll road.

If a surcharge is introduced on petrol the toll system on the road would not be necessary and the cost of building it would be borne by the province.

Political

The considerations relating to the building of this road are also political.

It will be a major artery carrying traffic from Soweto to areas on the Reef.

The R300 million road running through Johannesburg would take at least 10 years to build if current financing methods are used.

A surcharge on the price of petrol would enable the National Transport Commission to complete the road in four or five years. Mr Griffiths said.

'Parent' company helps rural schools

Shw 15/10/82

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By Molra Levy

A company which has adopted 13 schools, has chosen to focus its attention on rural areas.

"These schools are in far greater need than those in urban townships such as Soweto and Alexandra," said Colonel G W Snelling, public relations manager for Caltex.

"In industrial areas workers usually hire reasonably close to schools and companies often contribute generously to schools in the area, for the benefit of their own employees.

"In addition the employees are well paid and are in a position to contribute to the school."

Colonel Snelling said children in rural areas had parents who were migrant labourers or were employed on farms and in small towns.

Their wages were lower than those of city workers, "so their contribution to their child's school is often nil or minimal."

The company believes the aim of any school adoption programme should be self-sufficiency.

"Ekujuleni School in Sebokeng is about to stand on its own feet. We have provided the basics, and the parents' association can take it from here," said Colonel Snelling.

Ekujuleni is one of the few urban schools Caltex has adopted,



Pupils using the library facilities at Witkoppen Farm School.

because its need was so great. Lessons used to be held in double session, in wood and iron classrooms.

Caltex sets the establishment of gardens as a priority.

"It is vitally important for the well-being of the children, and if they grow vegetables the soup canteens may in time become self sufficient."

Together the company and the school committee decide on what must be done. Caltex believes that top of the list should be health and hygiene improvements.

The provision of functional toilets, safe drinking water, and a school feeding scheme take priority, and the company ensures that the classrooms have doors, window panes, floors and leak-proof ceilings.

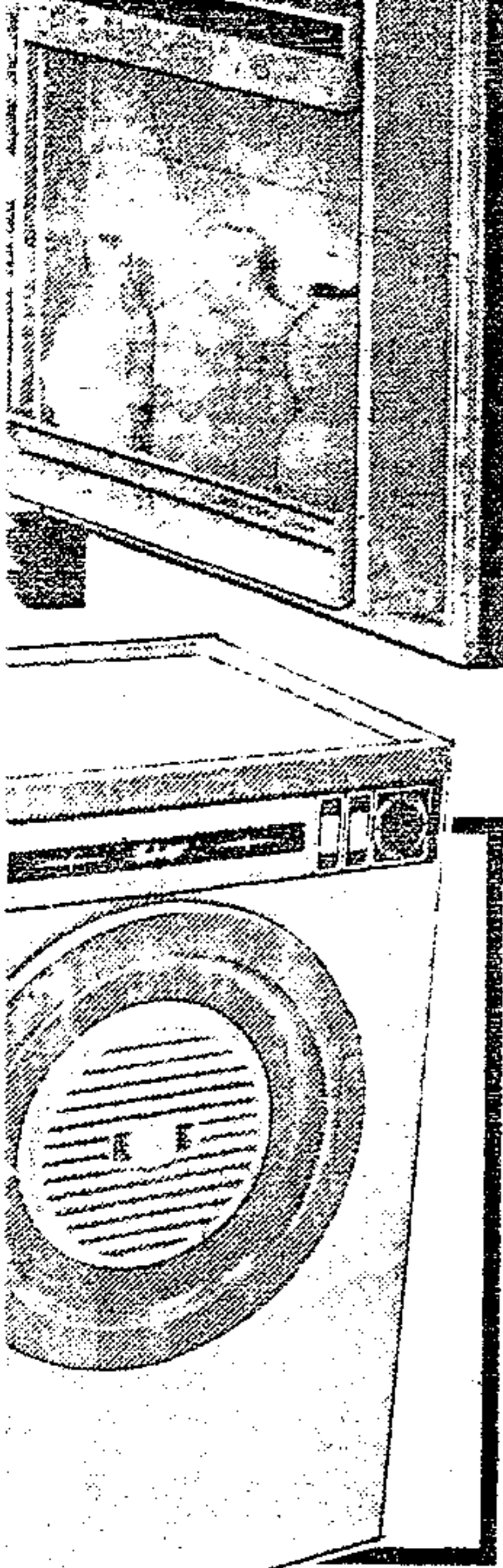
"We believe the community must be part of the project. If we provide the materials the community must build the classrooms," Colonel Snelling said.

"Most important, the schools must be used by the parents at night to further their own education.

"A variety of challenges faces South Africa. One is paramount — we must give to those who lack knowledge and skills the opportunity to obtain them."

The Star/READ Adopt-a-School programme was started to co-ordinate and promote private enterprise's contribution to upgrading black education.

Any company or group interested in adopting a school should contact the director, Mrs Cynthia Hugo, at



DRES

THROUGHOUT SOUTH AFRICA

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statements made by political leaders to be published by government agencies irrespective of where the statement is made.

pected to pay the cost of printing a speech and for its distribution. However, the Department of Foreign Affairs and Information

a supplement to the publication Orig. Both totals include the run-on over and above the normal circulation of the two publi-

Political Staff
DURBAN — More than 270 000 copies of the National Party Transvaal Congress speech of

Taxpayers foot bill to distribute PM's speech

Shw 15/10/82

Energy savings could hit Escom

Finance Editor
 ESCOM'S massive tariff increases announced this week could backfire on them if users take advantage of services which enable companies to cut back on unit costs and make volume savings.

And it seems that at least one company in the business of energy cost saving is in for a boom. National Utility Services' director Leon Bosman told me: "This week's

increases are the best thing that could have happened for our business and we expect, and are already getting to some extent, a surge in enquiries for our services.

"It is surprising to us, too, that even farmers are becoming aware of the need to beat the energy system. They've told us they can't do much about the drought and bad crops, but they do realise they should be able to do some-

thing about Escom and their tariff increases. "So much so that this week we have designated one of our men full time to deal with farmers' enquiries in the Eastern and Northern Transvaal and we are taking on another chap to deal with farmers in the Free State."

Mines will be badly hit, too, and NUS is planning a special mailer soon for all mines giving them de-

tails of how they could possibly reduce unit costs for them. In the past four months NUS has had a 30 percent increase in business.

"What I'd like to know," added Bosman, "is how much more will the manufacturer have to sell, or the client have to pay, to make up for the latest increases. It can only be inflationary."

Natal industrialists, being major users of

Escom power, are going to be busy searching for ways to cut back on energy costs or volumes, many for the simple reason that the increases came so unexpectedly they had not included extra costs in their budgets to cover this.

"This is very disconcerting," said executive director of the Natal Chamber of Industries, Roland Freakes. "It is only fair that Escom should give us

at least three months' advance notice of these kind of increases — as was done with the Post and Telecommunications, for instance."

If industrialists do turn their attention to energy saving, Escom could find that instead of gaining the extra revenue they say they need, they could end up being in a more unfortunate financial position.

Work starts on PE gas plant

Municipal Reporter

(55)

WORK has started on the construction of a new R4-million coal-based gas-making plant for Port Elizabeth.

The company undertaking the project expects the construction period to be 14 months. The plant should produce gas before the end of next year.

According to the City Electrical Engineer, Mr Charles Adams, it will double the city's capacity for making gas from coal.

It is based on high temperature

U poor 19/10/82
carbonisation of coal, a process which has been applied worldwide in areas where coal is a prime energy source.

A special feature of the Port Elizabeth plant is that hydraulic coke extractor drives will be used as opposed to the conventional mechanical units.

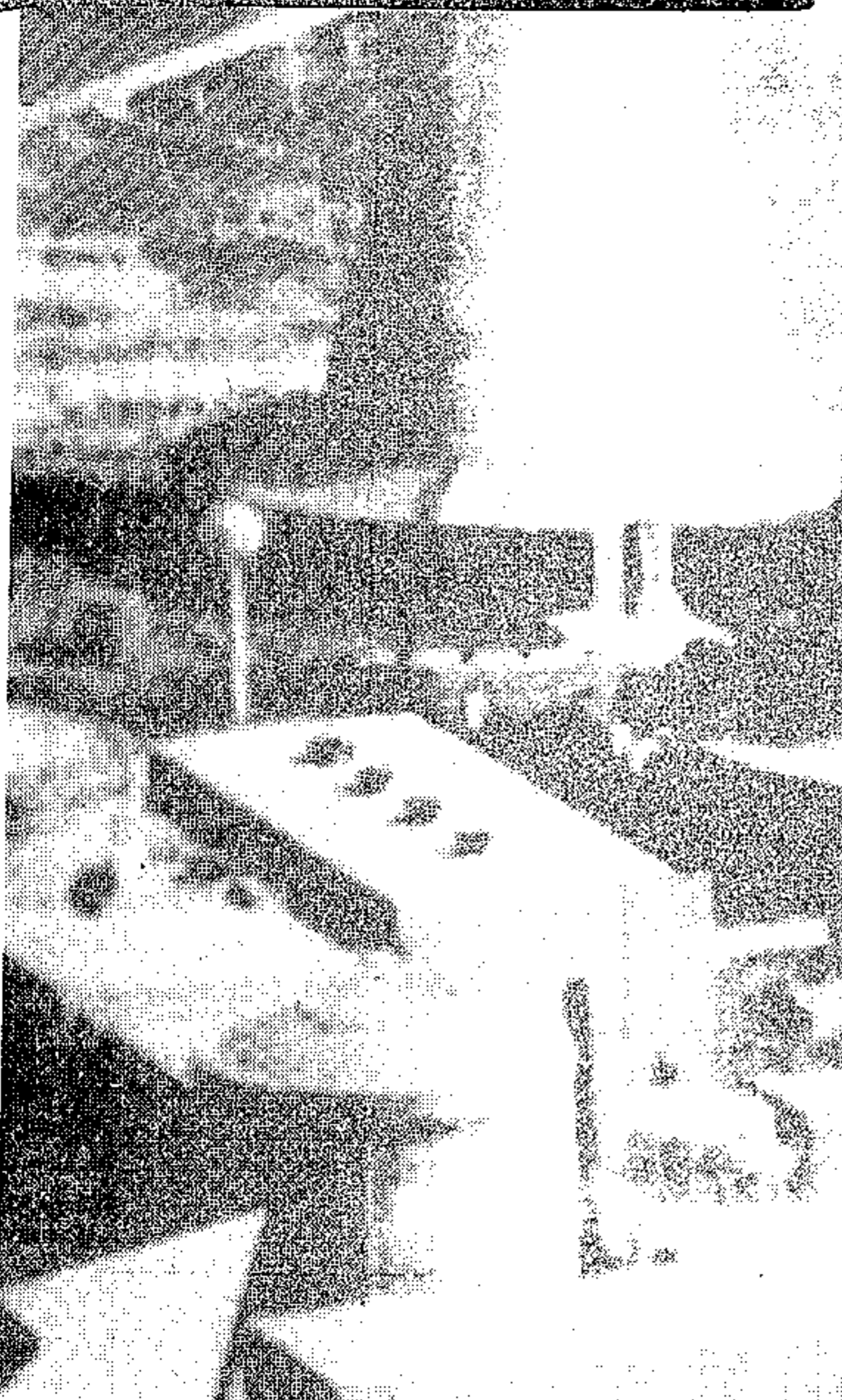
It will probably be the only gas-making plant in the world using such equipment.

Mr Adams said the new design would eliminate a great deal of the maintenance required on mechanical units.

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Mighty Koeberg's here to

THE GREAT NUKE SCARE



THREE-Mile Island in the United States. The accident and near disaster at the plant in 1979 is seen as the turning point of the anti-nuke lobby in the US.

KOEBERG is here to stay. Early next year Escom's R2-billion venture will begin earning its keep when the Koeberg One reactor comes on stream, adding its output to the national grid.

By late 1984 the Koeberg Two reactor will be operating and Escom has hinted that there is room on the Melkbosstrand site for four more reactors.

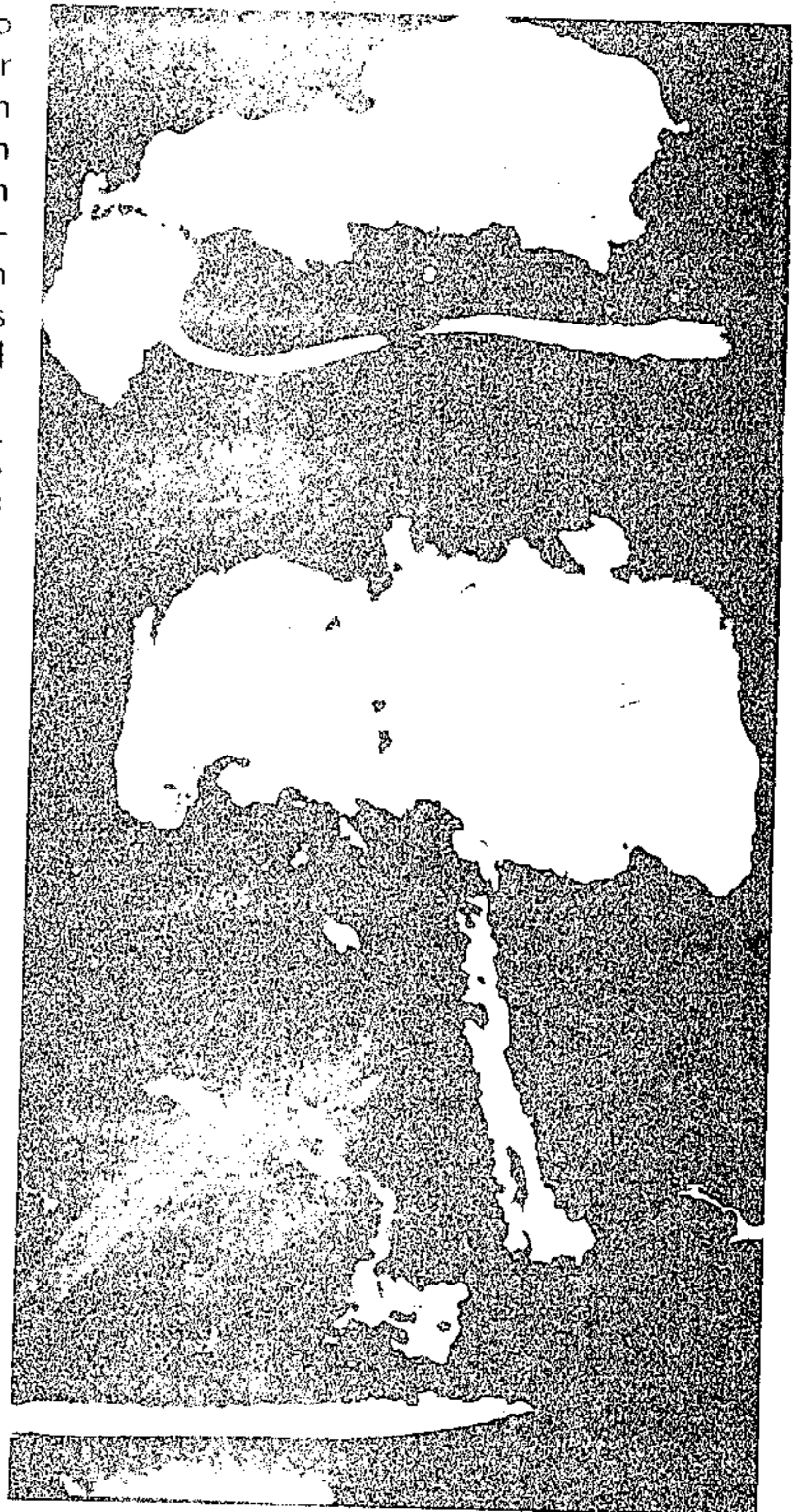
Taken with calls from people such as the outgoing chairman of the Uranium Enrichment Corporation, Dr Ampie Roux, for more nuclear plants to be constructed to meet the demands of the 21st century, it would seem that South Africa is ready to enter the nuclear era in earnest.

But the issues vexing the use of nuclear power, for peace or otherwise, are not about to disappear, regardless of Government and Escom attempts at stifling public debate on these vital matters with vague generalisations aimed at reassuring the public and an all-encompassing blanket of secrecy.

For two decades the small but vociferous "anti-nuke" protesters in the United States and Europe were seen by most citizens in the Western nuclear nations as a fringe group with strong communist and hippie associations.

But since the 1979 accident at Three-Mile Island nuclear plant near Harrisburg in the United States, which resulted in the evacuation of 140 000 people in a 16-kilometre radius of the plant and nationwide panic, the anti-nuke lobby has grown into a significant political force.

As the realisation has dawned in Europe that not only was any nuclear confrontation between the US and the USSR likely to be fought on European soil, but that American, and probably Soviet, strategists were specifically planning for just such "limited tactical war", so the anti-nuke campaign has be-



**Chris Erasmus
Science
Reporter**

more than a handful of worried citizens.

But local authorities can be assured that here, just as in the US and Europe, the anti-nuke lobby will grow as increasing numbers of people become aware that they or their children may one day be the victims of nuclear power rather than its beneficiaries.

Just last week the first in a series of awareness programmes was held in the Cape Town Art Centre in Green Point.

About 100 people attended, most of them vigorously anti-nuke, and the issues discussed were precisely those that have rallied millions of Europeans and Americans to the anti-nuke banner:

Why, if the chances of a major nuclear accident are in the order of only one in a billion or less, will no insurance company in any nuclear nation undertake to cov-

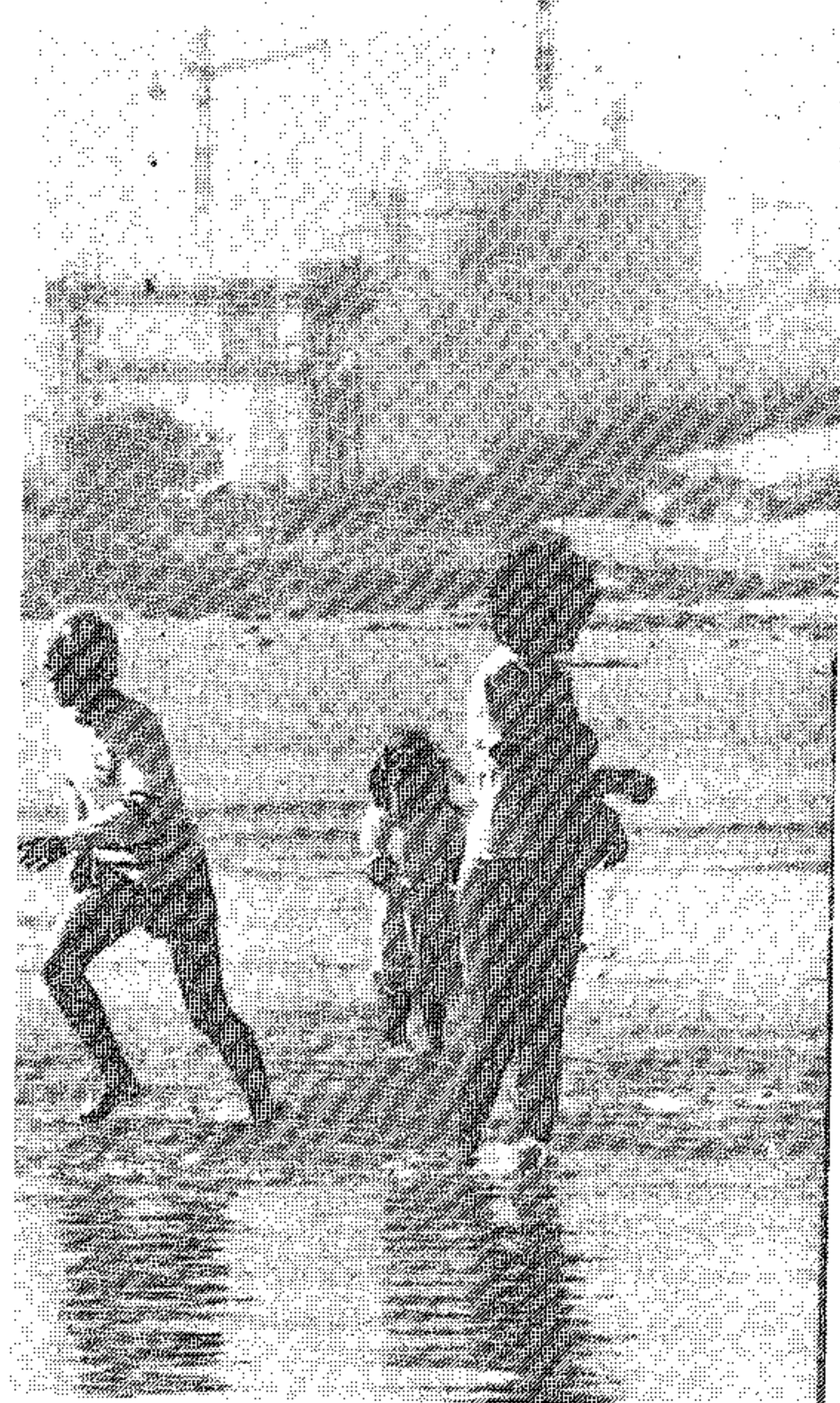
come a popular cause on the Continent

A recent series of anti-nuke demonstrations involving hundreds of thousands of people, culminating in a huge demonstration by nearly a million people in New York in June, gave notice to governments from Bonn to Washington that a large and rapidly growing number of people in the Western democracies fear the use of nuclear energy in any form.

In South Africa still very much in nuclear infancy, the anti-nuke brigade remains little

stay — but what about you?

CURSE OR BLESSING?



KOEBERG power station looms in the background while a family frolics in the surf, but how safe are the people of Cape Town in a nuclear emergency?

give the industry in these countries a virtual indemnity against possible claims made in the event of such a disaster)?

● What about the problem of nuclear waste disposal? No method yet exists to dispose safely of the high-level radioactive wastes, such as plutonium and strontium, some of which take literally hundreds of thousands of years to become harmless.

● Even if nuclear energy is intended for peaceful means (which is a laughable claim coming from the United States and Russia, who between them have more than 17 500 nuclear warheads, sufficient to obliterate life on earth 12 times over), can anyone give the assurance that none of the many terrorist organisations in today's world will ever be able to collect sufficient nuclear material to make a bomb?

To back up this point it was emphasised that in 1973 the US Atomic Energy Commission, with 20 years waste disposal experience, lost 150 000 gallons of nuclear waste and in 1971 had an estimated annual loss of about 50 kilograms of uranium and 30 kilograms of plutonium — enough to make at least one crude bomb in a short time. Over a six-year period the US Nuclear Enrichment Corporation could not account for six percent of the material it had handled.

● Why, since medical science confirms that no level of radioactive contamination is safe and that a nuclear disaster or war would be a catastro-

■ WHY, if the chances of a major nuclear accident are in the order of only one in a billion or less, will no insurance company in any nuclear nation undertake to cover a nuclear plant for full public liability against an accident?

phe beyond our comprehension, is not more finance being directed towards non-nuclear alternative forms of energy such as solar, wind, biogas and others? Some estimates rate the current ratio of research expenditure on nuclear to non-nuclear power at between 50 to 100 to one.

That these questions are real and that the anti-nuke lobby in the US is having a serious effect on the industry are re-

flected in the fact that since the Harrisburg accident no new reactor has been ordered in America.

Of the 139 reactors ordered since 1971, 79 have been cancelled and at least 10 of the 64 large plants under construction in the US are expected never to be completed.

The nuclear industry in America has ground to a halt in the wake of Three-Mile Island and the current world eco-

nomie slump, which is making it difficult for the major power utilities in the country to make ends meet.

In Europe the combined effect of political pressure and economic ills have had a similar effect, with the nuclear programmes of Britain, France and other European powers slowing down to a crawl.

Only the USSR and the Warsaw Pact countries, operating in somewhat different social, political and economic climates, are experiencing a large-scale growth of nuclear power, and only because that growth is state-regulated. The Soviet Union is expected to be producing 10 times its 1980 output of nuclear energy by the year 2000.

For Escom, operating in a more-or-less free market economy, the experience in America and Europe of a decade or two of rapid nuclear growth followed by slide into the doldrums is far more likely than the picture of an ever-expanding nuclear industry fuelling the development of a rosy future for the Republic.

Cost overruns, of which Koeberg must be a prime example, a heightened awareness of the economic and safety risks involved in constructing nuclear plants, a change in the relationship between the cost of coal and nuclear power and uncertainties about

nuclear waste disposal have combined to turn the once-booming American nuclear industry into a no-growth, high-risk venture.

Ten years ago the huge electricity utilities in the United States, with scientists and Government officials, were predicting unprecedented growth in demand for power. In fact, between the early 1970s and the end of that decade the growth in demand slumped from an average seven percent to a current two percent, and is still falling.

In South Africa there is a huge section of the population which is deprived of the use of electrical power, relegated as many of them are to homelands and townships almost devoid of the necessary infrastructure.

There may yet be some justification for a programme of energy expansion — which may include nuclear power if no reasonable alternative exists — if the Government and Escom undertake to make this energy available to a wider section of the population. In these circumstances the energy industry in South Africa might be on the verge of a boom.

However, can we not expect a trend similar to that in the US to become apparent in a South Africa, where the huge demand for electrical power from blacks is ignored, largely for ideological reasons, while demand from the established industrial areas levels off as expansion reaches its natural ceiling?

And what reason have the taxpayers in South Africa, whose money will be used directly or indirectly to finance the nuclear industry here, to believe that nuclear power will turn out to be the cheap, safe and peaceful boon it is purported to be by Escom and the Government?

Most important is that regardless of what the truth may be or what the South African authorities may say, it will be, if it is not already, the inevitable conclusion of foreign powers that the Republic has the capacity to produce nuclear weapons. If there is a nuclear confrontation between the major powers, even the potential to produce such weapons will be seen as a threat by one or other of the antagonists, inviting a devastating pre-emptive strike on the Republic.

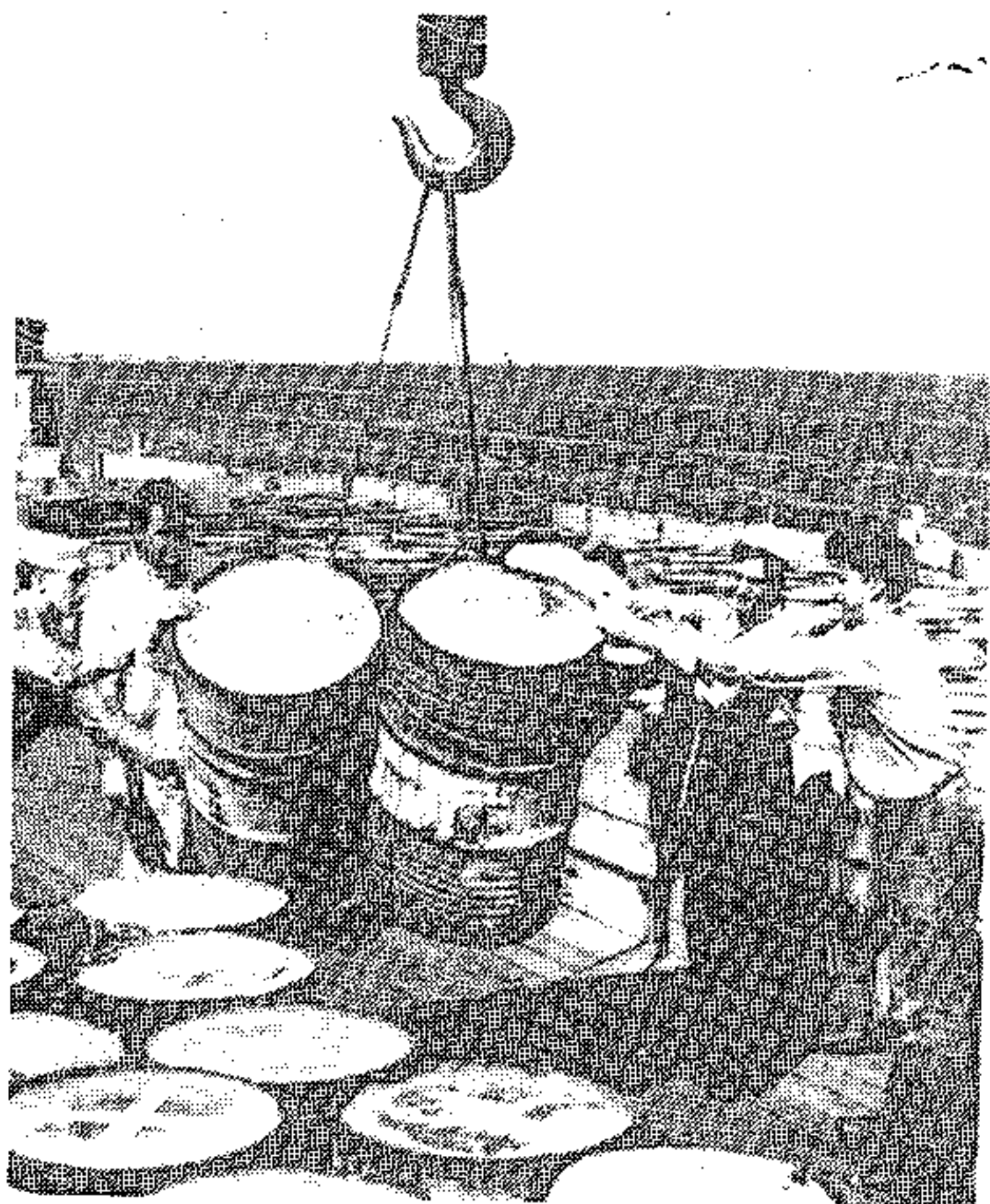
When the nuclear chickens come home to

their South African roost, be they in the form of nuclear destruction from bombs, sabotage or accident or in the form of massive expenditure of public funds on increasingly uneconomic and unnecessary nuclear power plants, with whom will the buck rest?

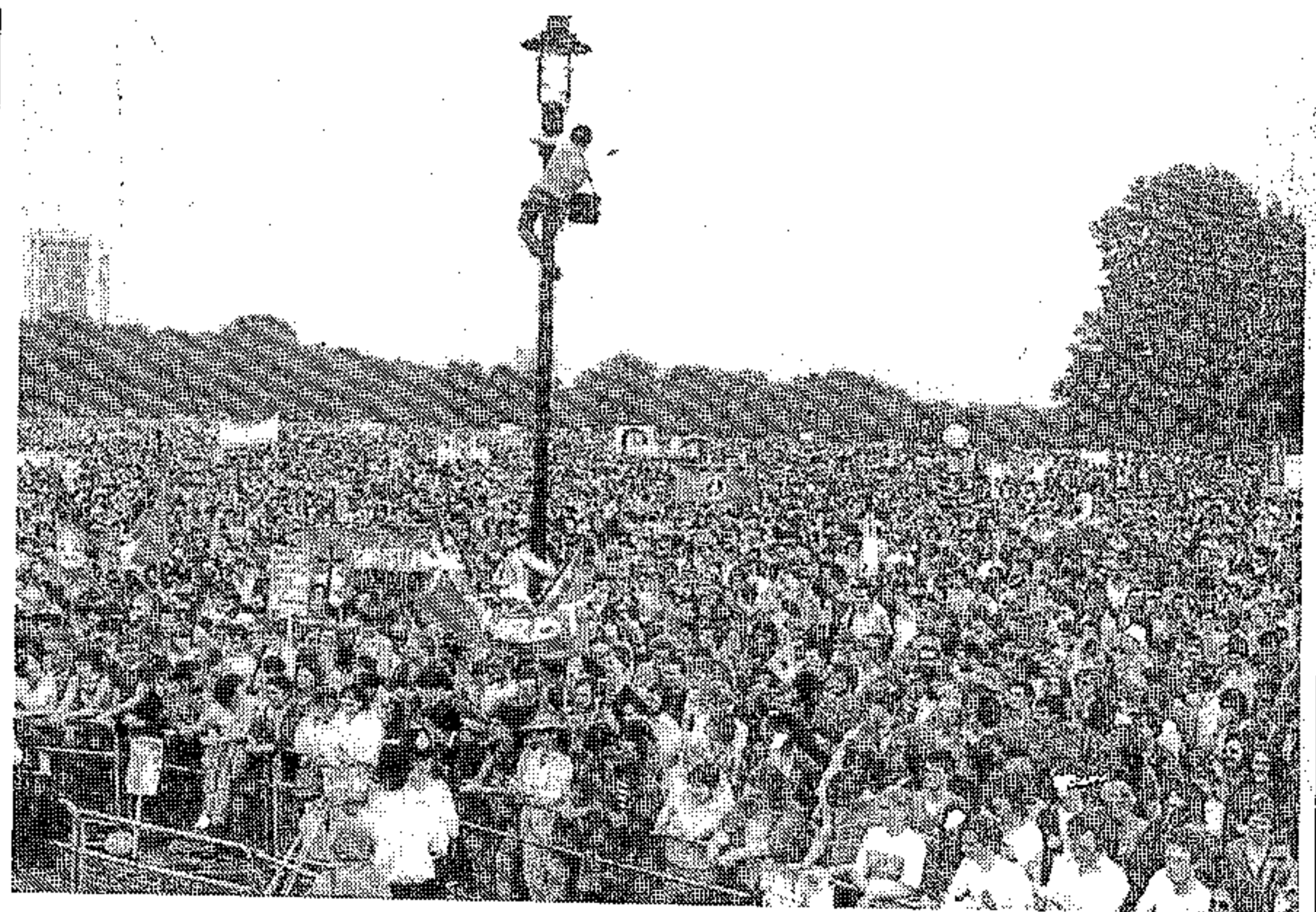
● According to Professor Arnold Abramovitz, acting-chairman of Koeberg Alert, ordinary citizens need not feel helpless in the face of Government and Escom determination to push ahead with nuclear expansion.

Increased participation in the nuclear debate and active self-education about the nuclear facts of life are vital, according to the professor.

Citizens should also ask Escom for public access to the unpublished emergency plan which the corporation is obliged to publish before it can be issued a licence to operate Koeberg.



RADIOACTIVE wastes being loaded aboard a United States Navy ship for disposal at sea. The drums are expected to survive a few decades at best, but some of the waste in them remains radioactive for hundreds of centuries.



ESTIMATES put this crowd of anti-nuke demonstrators in Hyde Park, London, recently at between 115 000 and 250 000. In Britain the Campaign for Nuclear Disarmament (CND) is a rapidly growing pressure group.

'DISCREDITED' VIEW IN EMERGENCY PLAN

ARL 22/10/82
Science Reporter

ESCOM is using a report on the probabilities of a nuclear accident, described by Koeberg Alert as out-of-date and repeatedly discredited, as part of the basis for its emergency plan in the case of an accident at Koeberg.

Attacking the use of the report, known as the Rasmussen Report, an information sheet released by Koeberg Alert, the organisation of doctors, scientists and academics concerned with

the use of nuclear power close to the city, says: "It is a waste of time and time again."

"The Atomic Energy Board is fond of quoting the Rasmussen Report (commissioned by the AEC in the United States), which tries to show that the probable consequences of a nuclear reactor accident are much smaller than a whole array of risks to which society is already exposed — for example airline and motor car crashes, chemical explosions, floods, etc.

"But the Rasmussen Report has been discred-

The statement said of the report:

- It was based on 970 reactor years — on smaller reactors than the 800 M Watt size today.

- A technique known as fault tree analysis was used, which made unrealistic assumptions.

- Some of the tests were carried out on non-nuclear components;

- It was illogical to compare accidents to other accidents.

"For example, you have the choice whether you fly or not and how you drive your motor car. Similarly a car accident cannot kill 6 000 people and after a flood one does not have to evacuate for a life-time as one would in a nuclear disaster."

The Rasmussen Report was quoted from by an Escom official, Mr J Walmsley, chief officer (safety assurance), at a meeting in Cape Town today at which Escom presented its emergency plan.

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Staff Reporter

THOUSANDS of pamphlets outlining emergency procedures in the case of the worst possible nuclear accident — a reactor core melt-down — will be distributed to people who live within a 16 km radius of the Koeberg nuclear power station next week.

At a briefing today, senior Escom officials told representatives of local authorities and the media what safety measures would be undertaken to protect the population from nuclear contamination in the event of a radioactive leak.

However, Cape Town's Medical Officer of Health, Dr R J Coogan expressed doubts about the effectiveness of the safety measures. Dr Coogan lives 5 km from Koeberg.

"Relatively safe"

On the panel were Mr G F Hellstrom, regional manager of Escom in the Western Cape, Mr J Walmsley, chief officer (safety assurance), Mr P M Semark, power station manager (Koeberg), Mr D L Craythorne, assistant secretary, Cape Divisional Council and Mr C A Gopill, head of nuclear services, Western Cape.

Mr Walmsley, quoting the Rasmussen Report made to the US Atomic Energy Commission on the probability and consequences of nuclear accidents, said the chances of a radioactive leak were one in every 10 000 years of the life of an average power station.

Compared to the number of occupational and non-occupational deaths in a coal power station, nuclear power stations were relatively safe, said Mr Walmsley.

Nevertheless, Escom has been compelled to introduce safety regulations.

Stable iodine tablets

The first protective action to be taken in the event of an accident will be to notify people within a 16 km radius to take shelter in their houses and to seal ventilation outlets. Stable iodine tablets would be administered by health authorities to minimize the intake of radioactive material into the thyroid gland.

Only in extreme cases would evacuation be recommended.

Mr Craythorne said Divisional Council staff would be able to begin emergency actions within an hour of an announcement of a nuclear accident.

In case of evacuation, arrangements had been made with City Tramways to provide large numbers of buses, which would take people along evacuation routes to centres where they would be rehoused.

Because there were 40 000 people in the evacuation area it would be impossible to evacuate the whole area, but an accident would be likely to affect only a percentage of the area, said Mr Craythorne.

60 km "rule of thumb"

Dr Coogan told the panel that statistics that had been outlined by Mr Walmsley indicating the improbability of a nuclear accident could not simply be applied to every individual power station.

A report released in America after the Three Mile accident had recommended as a "rule of thumb" that no nuclear power stations be constructed within a 60 km radius of populated areas.

"Evacuation might be possible in the immediate 16 km radius of Koeberg, but completely impossible for the whole of Cape Town," said Dr Coogan.

"Related to this is the worry about the meteorology of this area. The meteorological conditions in Table Bay could be described as a maelstrom and it is not impossible that if an accident occurred we would be talking about protective measure within Cape Town itself," he said.

Switch on in '83

A total of 62 000 houses have already been wired in Soweto in the race to complete the massive Greater Soweto electrification scheme before the end of 1983.

The scheme provides for the building of an electrical infrastructure to provide electricity to 105 754 stands and to upgrade or wire 101 934 houses.

Mr J S Burger, deputy chairman of the West Rand Administration Board, said the total cost of the infrastructure would amount

to R167-million and the house wiring to R44-million, making the total electrification cost amount to a total of a massive R211-million.

At present, the scheme was running one month ahead of schedule, he said.

Reacting to reports that Soweto residents were faced with high electricity bills, Mr Burger said this was due to the fact that Soweto residents skipped months in paying for the electricity they use.



Council defends bills

By LEN KALANE
SOWETO residents collect high electricity bills, sometimes over R900, because they do not pay for their supply at the end of each month, the Soweto Council disclosed.

Mr Nico Malan, the executive officer, said they had an example of a Dube family whose electricity arrears mounted for 30 months.

Such a family will be faced with a high bill at the end of the month and with such a situation, the supply is usually disconnected, Mr Malan said.

He said when cases of excessively high electricity accounts were reported, they

were investigated without delay and the account adjusted whenever necessary.

Mr Malan said in a statement: "I'm happy to say that over the last 12 months very few cases have been correctly reported as being unreasonably high."

He said reports in The SOWETAN were continuously trying to create the impression that electricity charges in Soweto were unjustifiably high. The Soweto Council, he said, was buying electricity at 3,47c per unit and in turn sells it at 3,5c per unit. The 0,03c per unit profit is used to cover the cost of maintenance of the system and administration charges.

Recent surveys carried out in Soweto revealed that the average monthly account per household was in the order of R35,00, the statement from Mr Malan said. Business consumers and also domestic consumers using non-domestic appliances such as welding machines can expect to receive higher accounts.

Mr Malan said The SOWETAN also compared Soweto's charges of 3,5 cents per unit with that of the Krugersdorp Town Council's "0,384".

"What The SOWETAN neglected to do was to add a 'Rand' in front of the tariff which makes Krugersdorp's the more expensive," he said.

Koeberg civil defence plan

ARGUS

26/10/82

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Divisional Council
Reporter

THE Divisional Council of the Cape today published a civil defence plan for a possible accident occurring at the Koeberg nuclear power station on the agenda for its monthly meeting but, when aspects were raised by councillors for discussion, the matter was removed from open council to be discussed in committee.

According to the report — "which is brief and confined to the barest essentials" — the council's civil defence functions were traffic control, rescue and evacuation work, shelter against radio-active fallout, the medical treatment and care of injured and sick persons, the provision of emergency housing, food and clothing, and the continuation of public health services and transport, communications and warnings.

The report said that the council's staff were considered to be adequate in numbers and skills to handle the implementation of the plan, but if needed help could be requested from the 17 other local authorities in the area.

Available equipment was inadequate, particularly in the field of communications and control, but negotiations were in progress with government agencies and it was "more than likely" that assistance would be obtained.

The basic civil defence plan allowed protective action to be taken within one hour of a leakage of radiation occurring.

Melkbosstrand, the Escom village and black labourers' quarters near the power station were the areas most at risk and action in those areas came first in the plan, extending outwards.

To make implementation of the plan easier, the area in a 16 km radius of the power station had been divided up into Protective Action zones.

Protective action would be implemented in the form of three basic actions — a request to people to take shelter (stay inside a building, close all doors and windows, turn off all air conditioners and mechanical ventilating systems); issuing to the public a drug known as Potassium Iodate (which, if taken timely, enters the thyroid gland and blocks the entry of radioactive iodine); and "in certain extreme cases" evacuation.

The report then continued with a further breakdown on how these three actions would be performed.

When councillor Mr Clive Bilski rose to discuss the fact that no mention was made in the report for the provision of protective clothing or breathing apparatus for Council staff implementing the plan and to question what Escom was doing for their own employees in this regard, the Divco medical officer of health, Dr L R Tibbitt, asked that the matter be discussed in committee so that he could furnish some information on the subject.

Mr Louwtjie Rothman moved accordingly and the motion was carried.

Kom 27/12/82

Minister stresses need for synthetic fuel

By GERALD REILLY
Pretoria Bureau

THE Government has decided that synthetic fuel production should be stimulated with private sector involvement, the Minister of Mineral and Energy Affairs, Mr P T C du Plessis, said last night.

Opening the conference of the SA Agricultural Union in Kimberley, Mr Du Plessis said the completion of Sasol Three would place South Africa in an independent po-

sition.

However, with the growth of the use of refined petroleum products, this independence was eroding.

The Minister said his department was examining certain proposals, but before any fuel made from agricultural products was considered, the practical aspects, including its effects on existing engines, would have to be determined.

The increasing demand for

energy meant that the switch away from an oil-dominated world energy economy should be started.

South Africa was in an almost unique energy position with about 80% of its energy needs being provided from available domestic coal.

It could be expected that coal would continue to play a more important role in the energy economy because of the increasing electrification and the production of synthetic petroleum products.

The country's first nuclear power station at Koeberg would come into operation next year.

There were no further decisions about nuclear power stations, but they could be expected to play a significant role in the country's energy future.

South Africa had big uranium reserves and a unique refining process. This could have particular influence on the national energy economy, the Minister said.

Escom aim to spur expansion

Star 29/10/82

53

By Stan Kennedy
Escom's capital expenditure on fixed assets in 1983 is estimated at R3 000 million, of which 62 percent will be spent on power stations, 16 percent on extending transmissions, distribution, reticulation and communication networks, and 22 percent on other facilities.

The commission's financing plans indicate that R3 800 million will be required in 1983, of which 35 percent will be provided from internal financial resources.

This leaves R2 400 million to be raised on

the external markets, compared to the R2 000 million raised this year.

Mr R A Forbes, assistant general manager (finance), told the Capex conference that Escom's extensive expansion programme meant that its installed capacity of 20 000 MW would be almost doubled in the next 10 years.

STEADY RISE

Expressed in money terms (1982 values) the latest estimates indicate that R20 000 million will be spent on capital development in the 1980s.

Kruger's R250 000 oil deal clinched

w/E ARGUS
30/10/82
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Weekend Argus Bureau

LONDON. — An oil deal which could earn former South African Minister of Finance Mr Jimmy Kruger about R250 000 over the next three years has been clinched.

This has been confirmed by sources here who say that delivery of the Arab oil to the United States should begin early in January.

The contract is for a minimum supply of 50 000 barrels of oil a day at 30,50 dollars a barrel over a 36-month period.

This means that the deal is valued at more than R1 500million.

But Mr Kruger, by his own admission, is small fry in the transaction. He has to wait for his commission to be determined by other intermediaries in the deal.



Mr Jimmy Kruger

To decide

One of the "middle men" who will decide what Mr Kruger will earn is the coloured entrepreneur, Mr Hilton Frans, who earlier this month said: "Jimmy will get around 200 000 to 300 000 dollars."

This would, however, be dependent on the entire contract — which is open for renegotiation every three months — being fulfilled.

The signing of the deal took place in spite of Mr Kruger's alarm that he was reported to be involved in the deal.

Pressure

Following the report in The Argus, Mr Kruger said: "Now that the Arabs know South Africans were involved they will put pressure on the Saudi Arabians to withdraw."

"So the whole deal is stuffed and I won't be making any money out of it. Are you happy now?"

Sources in the British oil industry here disclosed that the commission made on this type of transaction was usually about five US cents a barrel.

So if all the oil is delivered, the middle men should earn about R2,5-million.

Will not talk

Besides Mr Kruger, it is known that at least three other parties are involved between the supplier and the end customer.

Mr Kruger refused in Pretoria last night to confirm that the deal had been clinched.

"I have decided not to talk about my private affairs any more," he said at his home in Irene.

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WARNING

1. No books, notes, pieces of paper or other material may be brought into the examination room unless candidates are so instructed.
2. Candidates are not to communicate with other candidates or with any person except the invigilator.
3. No part of an answer book is to be torn out.
4. All answer books must be handed to the commissioner or to an invigilator before leaving the examination.

to disqualification and to possible exclusion from the university

PEOPLE worry enough about their normal life expectancy without having to take into account a possible radio-active leak at the Koeberg nuclear plant.

And current feeling — not least in the City Council — is that the baboons at Cape Point will live the longest.

At the moment the council, which has no contingency plan for a nuclear mishap at this stage, is doing the worrying for its citizens.

It is more than disturbed by aspects of the emergency planning outline recently released by Escom and the Divisional Council.

One aspect is the instruction to people to stay put in their homes, take potassium iodide pills and resist the temptation to run like hell.

(Another worry is that most of the dairy herds which supply the Peninsula are in the immediate danger zone.)

This afternoon the Medical Officer of Health, Dr RJ Coogan, will hand over a report on his assessment of the plans to the Amenities and Health Committee.

Clearly unhappy with the Escom briefing, Dr Coogan (who lives in Bloubergstrand, in the immediate danger zone) was asked by the chairman of the Executive Committee, Mr John Muir, to file the report.

It is unlikely to be the final word on the matter, either.

The council is troubled by the fact that Escom and the Divisional Council appear to be dealing only with the danger zone in a 16km radius.


Areas outside that arc fall into the council's lap.

And it whispers that with the first whisper of a leak at the power station, the Peninsula's population might take to the N1 and N2.

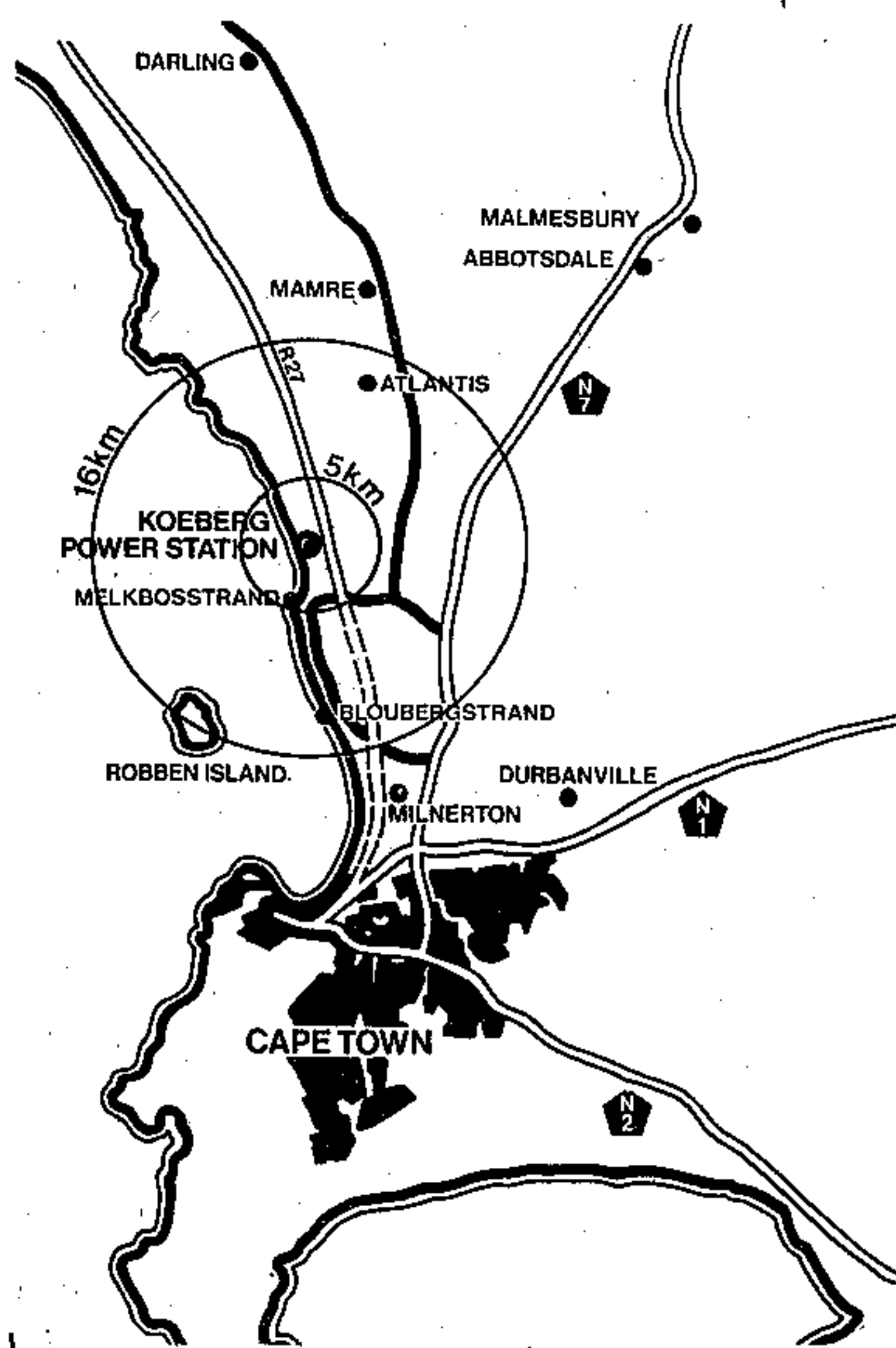
At the monthly meeting last week, councillors were seen with copies of newspaper reports on Koeberg and consulting a map showing the danger zones.

Mr Muir, who was one of the few councillors who objected strongly to the siting of Koeberg close to Cape Town, says there has to be co-ordination between the first and second danger zones.

He is also aware of the lessons of the American Three Mile Island accident where all contingency plans proved to be a failure.



Civic Diary
By
Jane Arbous



Closed doors

Another disturbing aspect cropped up at the Divisional Council meeting when councillors wanted to know why no provision had been made to supply emergency workers with protective clothing and what was Escom was doing about its own staff.

Answers were given behind closed doors.

Escom has stated that its emergency plans are too detailed to make them available to the public.

However, most people believe that being open is the best approach.

The quote of the week was made by the Divisional Council's secretary, Mr W R Vivier.

"It's all a question of finance," he replied to a councillor who asked when the lack of radio-communication equipment would be remedied.

Thank heavens Koeberg is running behind schedule.

THE Divisional Council's bland announcement of a new chairman and deputy last week told nothing of the political fight behind the scenes since the elections earlier this year.

Unless a deputy chairman puts both feet wrong, it is traditional that he moves up without opposition when the chairman steps down.

And in this case, the former mayor of Durbanville, Mr G M Basson, succeeded Mr LJ Rothman. Both could be described as conservative.

So the tussle between left and right wings at the informal caucus meeting the previous day was over on the election of a new deputy chairman.

In the running were two councillors from the northern suburbs — Mr M

Aggenbach, a youthful hard-working councillor with a hardline reputation, and Mr P Grobbelaar, who is older, conservative but somewhat more pragmatic.

Mr Aggenbach, who is an expert at using council procedure to defeat and delay sensitive debate and decisions, won the day and will no doubt end up as chairman.

And in a clear warning to political factions in the chamber, Mr Basson appealed to all councillors in his acceptance speech to approach matters "objectively".

Unease about plans for 'leak'

The Cape Times, Monday, November 1, 1982 9

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Coogan urges parley on Koeberg plan

AKGUS
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Municipal Reporter

The Medical Officer of Health, Dr R J Coogan, has called for urgent discussions with the Atomic Energy Board about the proposed safety plan for Koeberg before the nuclear power station comes on stream.

In a report to the Amenities and Health Committee yesterday, Dr Coogan expressed reservations about approval of Escom's emergency plan.

He disclosed that the City Council had not been consulted in forming the emergency plan "in spite of a number of inquiries on the part of the City Council".

Action

Escom's emergency plan affects only those living within a radius of 16 km from Koeberg and includes three basic courses of action:

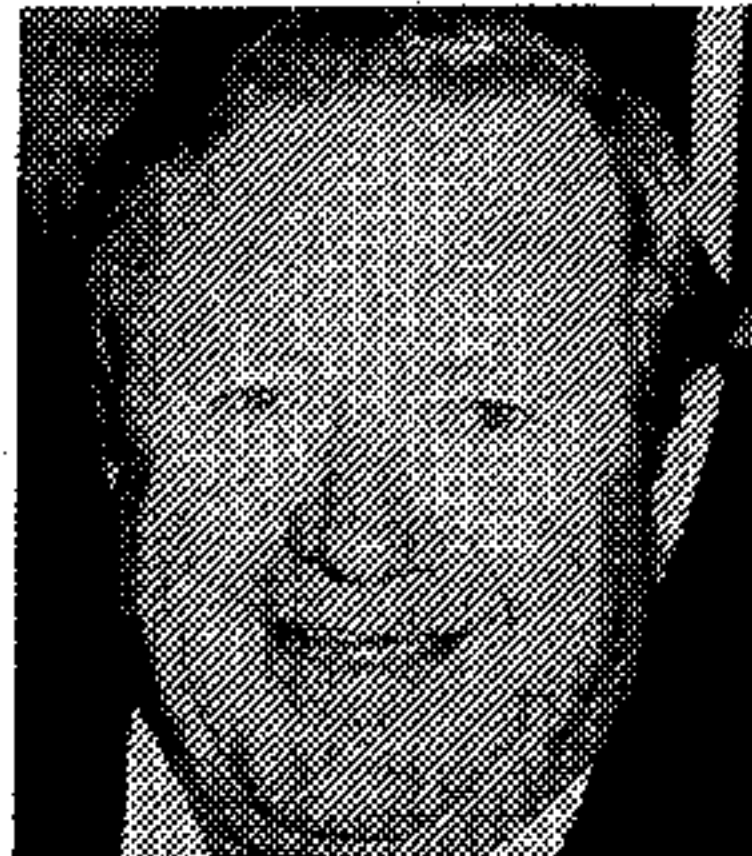
- A request to residents to take shelter (stay inside a building, close all windows and doors, turn off air-conditioning systems).

- Administering stable iodine tablets to block the entry of radioactive iodine.

- Evacuation in extreme cases.

Dr Coogan said he agreed that the courses of action outlined by Escom were the only alternatives in such an emergency, but a brief look at each of them illustrated the gravity of the problem.

Doubts were raised about the amount of protection afforded in the average house when one considered the heavy



Dr R J Coogan

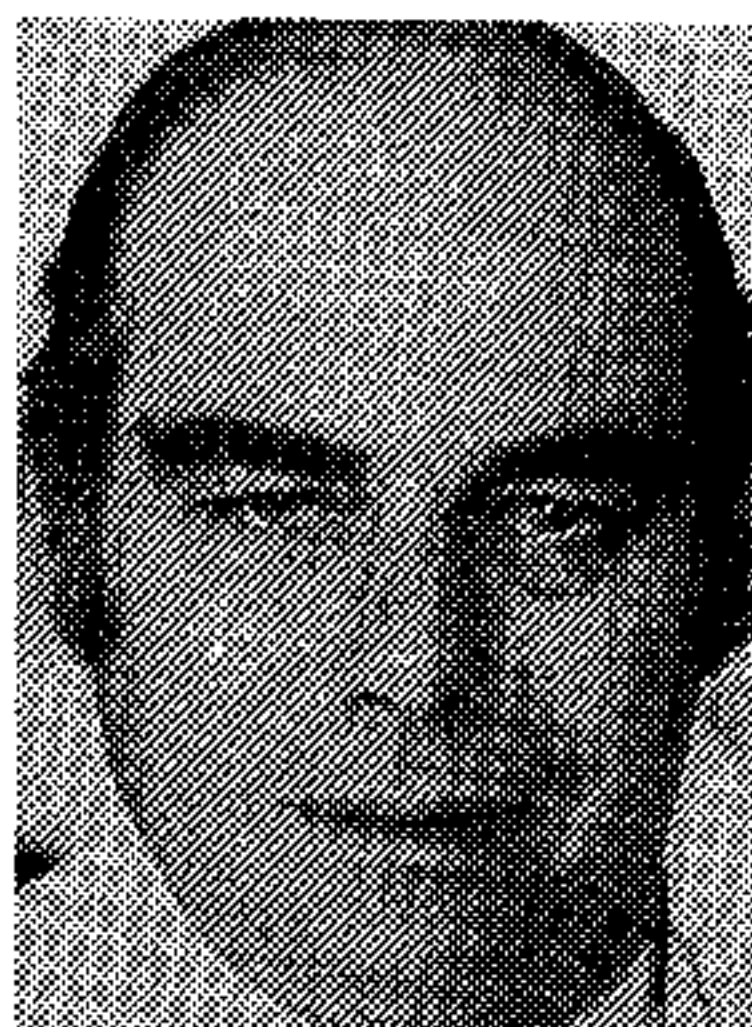
shielding normally required to protect people from radio nuclides.

The taking of potassium iodide tablets raised the point that many other radio nuclides would be present for which no protection existed.

"The alternative of evacuation poses many hazards of its own, particularly if a radioactive release has already occurred," the report said.

Dr Coogan, who lives 5 km from Koeberg, made a plea that the imaginary 16 km line be extended because of the peculiar meteorological patterns of Table Bay.

He said it was well known that circulatory breezes blew from the



Dr John Sonnenberg

northern coast past Robben Island into the mountain basin through Green Point. There could be dispersion to Sea Point.

Conditions suitable for this phenomenon were estimated to exist for about 15 percent of the year.

Dr Coogan disagreed with Escom officials who maintained that no member of the public had ever died of radiation.

Quoting from the Pennsylvania Secretary of Health at the time of the Three Mile accident, the report said there was a significant increase in the neonatal mortality rate afterwards.

Astonished

Dr Coogan said "he did not feel it incumbent" to comment on the "awesome" responsibilities assumed by the Divisional Council.

"But I must confess my utter astonishment at the briefing on October 22 when the Divisional Council spokesman announced his emergency plan to transfer up to 20 000 evacuees (some already irradiated?) in Tramway buses to the Cape Show Grounds in the City Council area.

"It was the first I had heard of it!"

LOOK! NEW TRADE !!!

(53)

(KAP)

rcm 2/11/82

'No liaison on emergency procedures'

Escom rapped over nuclear safety plan

Mail Correspondent

CAPE TOWN. — The Medical Officer of Health in Cape Town, Dr R J Coogan, accused Escom yesterday of going back on its assurances that the city council would be involved in the drawing up of the Koeberg nuclear emergency plan.

In an "urgent" report to the amenities and health committee yesterday afternoon, Dr Coogan said Escom had not consulted the council's civil defence and health departments before its public briefing on the plan last month.

Dr Coogan said the Cape Divisional Council had "awesome responsibilities" for the immediate danger zone. He was "astonished" by the council's emergency plan to transfer up to 20 000 evacuees in City Tramway buses to the Cape Showgrounds in the city council's area.

"It was the first I had heard of it." The amenities and health committee

authorised Dr Coogan to seek urgent discussions with the Atomic Energy Board on the approval of the proposed safety plan for Koeberg prior to its imminent "coming-on-stream".

In his report Dr Coogan quoted from correspondence and the minutes of meetings between Escom and the council in 1980 in which Escom had assured the council it would play a big part in the emergency plan and was pleased with the council's interest.

There had been no formal involvement, however, Dr Coogan said.

Dr Coogan questioned Escom's statement in its publication "Living with Nuclear Energy" that no person had yet died from radiation, "not even at Three Mile Island".

Quoting Dr Gordon MacLeod, the Pennsylvania Secretary of Health at the time of the American nuclear accident, Dr Coogan said the neonatal mortality rate within a 10 km radius of Three Mile Island had jumped from 8,6 and 7,6 per

1 000 live births before the accident to 17,2 and 19,3 soon afterwards. The mortality rate then declined to just above the previous levels.

Commenting on Escom's instruction to people to shelter in their homes in the event of a radio-active leak, Dr Coogan said he had doubts about the real protection from gamma radiation when one considered the heavy shielding normally required to protect people from radio nuclides of this sort.

Escom's other alternative — evacuation — posed many hazards of its own, he said, particularly if a radio-active release had already occurred. It was well-known that circulatory winds blew from the northern coast (the Koeberg site) out to Robben Island and then into Cape Town.

Quoting from the Three Mile Island Commission report, Dr Coogan said nuclear plants should be sited in remote places as an added contribution to safety.

[Handwritten scribbles]

Escom has broken faith with the city'

ARGUS
2/11/82

(55)

KAB

ESCOM had broken faith with the public of Cape Town over an emergency plan for Koeberg, the MPC for Green Point, Dr John Sonnenberg, said last night.

Speaking at a meeting of the Green and Sea Point Ratepayers and Residents Association, he said Koeberg nuclear power station was due to come on line in two months and the City of Cape Town had not been briefed about an emergency plan.

Dr Sonnenberg said that a nuclear disaster at Koeberg was highly unlikely, but not impossible.

Sea Point was only 25 kms from Koeberg. In the event of unfavourable meteorological conditions which existed for about 15 percent of the year, there was a danger within 80 kms of Koeberg.

FIRING LINE

"I feel extremely uneasy that the station comes on line at the end of December and that the City of Cape Town, which is in the firing line in the event of an accident, has not been consulted," he said.

Dr Sonnenberg said that two years ago the Escom Executive Committee had recommended that the council be represented at quarterly meetings to discuss emergency plans for Koeberg.

"Despite a number of inquiries by the Medical Officer of Health, he has not been invited to any meetings," said Dr Sonnenberg.

He said the Provincial Council had been involved in the formulation of an emergency plan, but they were lacking the resources to be of any assistance to the public of Cape Town in the event of an emergency.

Dr Sonnenberg called for an emergency meeting with the Atomic Energy Board to discuss the formulation of an emergency plan for Koeberg.

Quoting from the Three Mile Island Commission's report, he said that in an accident in which prompt defensive steps were necessary within a matter of hours, insufficient advance planning could prove extremely dangerous.

Koeberg safety plan slammed

CAPE TOWN

2/11/82

55

CS

By JANE ARBOUS

CAPE TOWN'S Medical Officer of Health, Dr R J Coogan, accused Escom yesterday of going back on its assurances that the City Council would be involved in the drawing up of the Koeberg nuclear emergency plan.

In an "urgent" report to the Amenities and Health Committee yesterday afternoon, Dr Coogan said Escom had not consulted the council's civil defence and health departments before its public briefing on the plan last month.

Dr Coogan said the Divisional Council had "awesome responsibilities" for the immediate danger zone. He was "astounded" by the council's emergency plan to transfer up to 20 000 evacuees in City Tramway buses to the Cape Showgrounds in the City Council's area.

"It was the first I had heard of it," he said.

The Amenities and Health Committee authorized Dr Coogan to seek urgent discussions with the Atomic Energy Board on the approval of the proposed safety plan for Koeberg prior to its im-



Dr R J Coogan

minent "coming-on-stream".

In his report — requested by the chairman of the Executive Committee, Mr John Muir — Dr Coogan quoted from correspondence and the minutes of meetings between Escom and the council in 1980 in which Escom had assured the council that it would play a big part in the emergency plan and was pleased with the council's interest.

In May 1980, the then chairman of Escom, Western Cape, Mr R P A Myburgh, assured the Executive Committee that the council would be consulted in the formulation of "the very detailed and extensive plan".

At a meeting in July 1980, Dr B Fitzgerald of Escom told senior council officials that it was Escom's intention to gain the confidence of the public and to explain the emergency plan to them. Drafts of the plan would be sent to Dr Coogan and further contact was promised.

In spite of a number of inquiries by the council since then, there had been no formal involvement, Dr Coogan said.

Dr Coogan questioned Escom's statement in its publication "Living with Nuclear Energy" that no person had yet died from radiation, "not even at Three Mile Island".

Quoting Dr Gordon MacLeod, the Pennsylvania Secretary of Health at the time of the American nuclear accident, Dr Coogan said the neonatal mortality rate within a 10 km radius of Three Mile Island had jumped from 8,6 and 7,6 per 1 000 live births before the accident to 17,2 and 19,3 soon afterwards. The mortality rate then declined to just above the previous levels.

Commenting on Escom's instruction to people to shelter in their homes in the event of a radio-active leak, Dr Coogan said he had doubts about the real protection from gamma radiation when one considered the heavy shielding normally required to protect people from radio nuclides of this sort.

He said that Escom's plan to give people potassium iodide pills to protect the thyroid would have the desired effect if medication were taken in time. However, the proposal raised the point that there would be many other radio nuclides present for which no protection existed.

Escom's other alternative — evacuation — posed many hazards of its own, he said, particularly if a radio-active release had already occurred.

CAPE TIMES 2/11/82

Emergency plan: Escom accused

Municipal Reporter

ESCOM had broken faith with the people of Cape Town by not briefing the City Council on its emergency plan for Koeberg, Dr John Sonnenberg, a city councillor and Opposition provincial spokesman on health matters, said last night.

Speaking at a special meeting of the Green and Sea Point Ratepayers' Association, Dr Sonnenberg said Koeberg and the unlikely, but possible radiation leak was a subject of extreme and urgent public importance.

Koeberg, he said, was expected to start generating power within the next two months.

Escom had released the main elements of its emergency plan earlier this month. It had consulted the Divisional Council but not the Cape Town Medical Officer of Health, Dr R J Coogan, who was responsible for over a million people in Cape Town.

Dr Sonnenberg reminded his audience that possible nuclear fall-out could extend up to 80 km from the power station in unfavourable wind conditions. Three Mile Island, the American nuclear plant which experienced a leak several years ago, was supposed to have been foolproof, he added.

He said he was extremely uneasy over the Koeberg plan, one aspect of which was moving irradiated evacuees or "walking bombs" into the City Council area.

Mr Clive Bilski, a divisional councillor, said since the regional liaison committee with Escom had been created, only one joint meeting had been held.

However, he had found Escom co-operative "behind the scenes".

Mr Bilski called for a public debate with Escom present. He urged the public to rely on their representatives and to ask questions.

...wed that the black...ulation had not bene-... lower. "Still, this is an in-credibly high rate.

Allan Lamb blacklisted

From IAN HOBBS

LONDON. — Third world anger over the rebel Sri Lankan cricket tour of South Africa has led to the removal of the United Nations sports blacklist — with Allan Lamb's name a shock inclusion. Unless Lamb and other prospective England cricketers named in the latest blacklist declare that they will cut their ties with South Africa, next year's cricket World Cup will be wrecked. The head of the United Nations Special Committee against Apartheid, Ambassador Victor Gbeho, of Ghana, said he needed an unequivocal statement from Lamb that he would never again play in South Africa — or cricket could again go into turmoil. After a press conference in London, Mr Gbeho said: "Critics of the blacklist disregard it at their peril after certain cricketers arranged the rebel tour of South Africa while they were in India, after giving guarantees to the Prime Minister, Mrs Indira Gandhi. "This and the way the Sri Lankans have accepted blood money to go to South Africa has created a very different atmosphere, and we mean business." Mr Gbeho said he had complete confidence that after Mrs Gandhi's experience no other third world country would ever again create a loophole for blacklisted sportsmen or women.

● Sporting greats on new list, back page

Koeberg plan is 'not the public's concern'

Cape Times 3/11/82
55

By JANE ARBOUS
Municipal Reporter

THE formulation of a Koeberg emergency plan was not the public's concern, the regional manager of Escom, Mr G F Hellstrom, said yesterday. Interviewed by the Cape Times, Mr Hellstrom said details were a matter to be worked out between Escom and the local authorities which, in terms of the Civil Defence Act, were responsible for dealing with any disaster. However, the Medical Officer of Health, Dr R J Coogan, yesterday stood by his report that the City Council had not been consulted by Escom on the drawing up of the contingency proposals. Mr Hellstrom maintain-

ned that Escom and the council had been in contact and referred to a recent meeting of the Koeberg Liaison Committee. Dr Coogan said yesterday he was not aware of the planned meeting and described the first and only one as "a tea party for lay members of local authorities". Neither he nor the council's civil defence and air-pollution officials were present.

'No communication'

"There have been no technical communications from Escom," he repeated. Mr Hellstrom said he could not reply in detail to Dr Coogan's critical report of Escom's handling of the emergency plan as

he had read only the Cape Times version.

He was not prepared to reply to "emotional outbursts", only valid questions. Asked what he thought of a suggested public forum where conflicting views could be thrashed out between officials and members of the public, he said it "would serve no purpose".

Dr Coogan replied: "It is their going public with the plan which is forcing me to go public."

The Town Clerk, Dr Stan Evans, was arranging urgent discussions with the Atomic Energy Board yesterday on the approval of the safety plan needed for the issuing of the Koeberg operation licence.

CARFINDER
in
tomorrow's
Cape Times

BUSINESS BRIEF

Gold (close)	\$431,00
FT Index (close)	615,30
RDM 100	682,10
Dow Jones	1 022,08

Abandoned baby is

By MARK VAN DER VELDEN
AN abandoned newly-born baby boy is miraculously alive in a Mossel Bay hospital after swift action by a police sergeant who found him with his head and chest tightly wrapped inside a plastic supermarket shopping bag. Acting on certain information received while on duty on Monday evening, Sergeant Johan Moolman, of Da Gama's Kop, a

few kilometres from Mossel Bay, rushed to the nearby Fairview residential area and found the dying infant lying on the ground among bushes. The baby boy had a plastic shopping bag pulled over his head and chest and it had been tightly bound around his waist. His body had also been wrapped in a towel. A police spokesman said Sergeant Moolman pulled the towel

and plastic bag off when he realized the baby was still alive, and then drove to a Mossel Bay hospital at "top speed".

Emergency treatment by hospital staff pulled the baby out of immediate danger and a spokesman said yesterday that his condition was "very satisfactory".

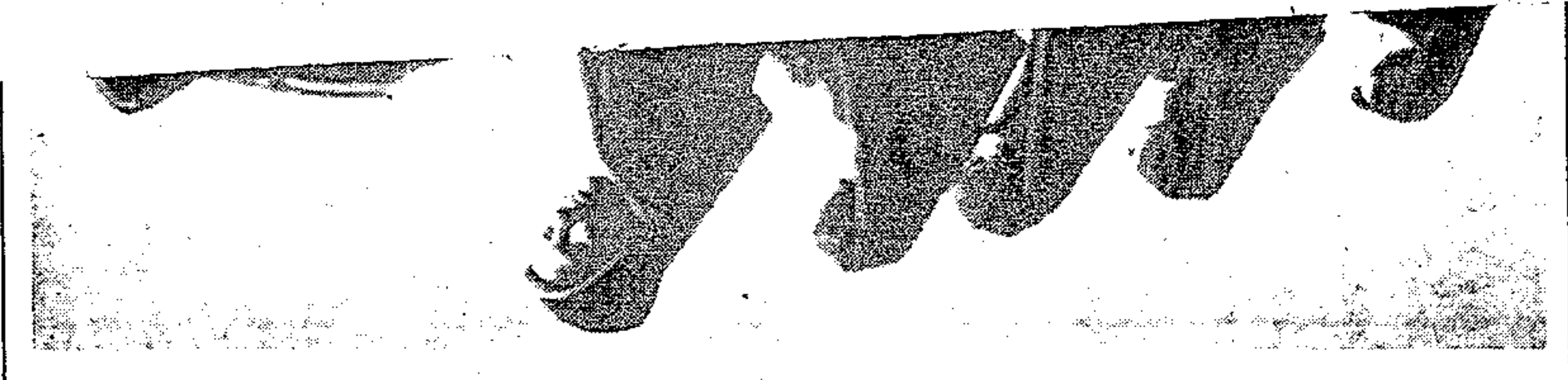
"Actually, he's recovering remarkably well, considering what happened," she said.



INSIDE

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				Cinema	10, 11	Horoscope	22	Women's	8
				Column	7	Racing	8	World Report	8

MINIS
Cape Times
silent



The most explicit reference to her in this cap... news reports. subject and four times in explicit cartoons on editorial columns, four times in editorials and stories, there have been 44 "woman" 15 times — sev... Including the headline... In the same period they... been made 17 times. In the same period they... have quoted her original... In those 16 days, the... Burger has said on ap... approximately 70 occasions... that "Mrs Bishop regards... Swapo members not as ter... tortists but as freedom... Burger have appeared... The Cape Times yesterday did a rough analysis of... the Burger's coverage of... the by-election in its news... and editorial pages (ex-... including arts and sport). the sixteen editions of the... can-Burger have appeared... in of the NP mouthpiece.

Koeberg: Escom backs down

CAP/4 Torkis
5/11/82
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Municipal Reporter

ESCOM was willing to liaise more closely with the City Council and its officials over an emergency plan for the Koeberg nuclear power station, Escom's manager for the Western Cape, Mr G F Hellström, said yesterday.

His reassurance, which was relayed to the Mayor, Mr Kosie van Zyl, yesterday, came after this week's criticism by the Medical Officer of Health, Dr R J Coogan, that there had been no technical communication between the two organisations.

Dr Coogan attacked Escom for keeping the council's medical, civil defence and air pollution experts in the dark over the formulation of emergency measures.

Although Escom had been in close contact with the Divisional Council, which was responsible for the immediate danger zone, most of the people likely to be affected in the event of a nuclear accident were in the municipal area.

Mr Hellström said in a statement that Escom was seeking the permission of the Atomic Energy Cor-



Mr Kosie van Zyl

poration to publish an information edition of its emergency plan for public comment as soon as

possible.

He pointed out that Escom had also set up a liaison committee on the plan and four representatives of the council sat on it.

Dr John Sonnenberg, a councillor and Opposition provincial spokesman on health matters, welcomed the willingness to co-operate more closely with the council but emphasised that only one plan for all the Peninsula's local authorities should be drawn up.

Individual contingency plans would only lead to chaos.

He said Escom's new position had probably been the result of the council's bid to have urgent discussions with the Atomic Energy Corporation on the approval of a safety plan before a licence for operating Koeberg was granted.

Sirens
will alert
those in
danger
zone

Own Correspondent
CAPE TOWN — Sirens will alert people living within the danger zone — a five km radius around Koeberg — if a serious accident occurs at the nuclear power station.

According to Escom's emergency plan, people outside the range of sirens will be alerted by the police or emergency workers using loud hailers.

Normal programmes on all SABC radio channels serving the Koeberg area will be interrupted.

The Escom emergency plan briefly outlines what people should do once they have been alerted. It recommends that they:

● Stay tuned to the SABC for further information.

● Do not use telephones except in cases of emergency.

● Give neighbours a knock on the door to help spread the word.

The Koeberg control team will check on the situation and then recommend certain safety precautions. These include:

● Take shelter, stay indoors, closing all windows and doors, turning off any fans or air conditioners and covering up air-locks or other ventilation holes.

This precaution will only be necessary "if a relatively small release of radioactive materials has taken place or is expected," accord-

Cape council aims to delay Koeberg until plans revealed

Own Correspondent
CAPE TOWN — The Cape Town City Council will ask the Atomic Energy Corporation to withhold Koeberg's operating licence until Escom consults the council on details of the emergency plan, the Medical Officer of Health, Dr R J Coogan, has disclosed.

The Atomic Energy Corporation must approve the emergency plan before it grants permission for Koeberg to go on stream in about two months' time.

Dr Coogan said yesterday the logistical, staff and financial implications of the emergency plan were far reaching for the city council, but no details had been discussed with the council.

"Escom has not given us any information about the plans despite our inquiries. We first heard details about the plans at a briefing on October 22," he said.

"I am totally dissatisfied. They forced my hand by going to the public with their plans without consulting us. They could have expected our protest."

Dr Coogan, who lives 5 km from Koeberg, said separate plans had to be devised for each possible situation during a nuclear accident — from minor leaks to full scale emergencies — and all the meteorological possibilities had to be taken into account.

"It's an enormous subject and we will have to go into it in detail.

It will take several months of planning before we are satisfied," he said.

In his "urgent" report on the emergency plans to the council's Amenities and Health Committee on Monday, Dr Coogan said the three courses of action proposed by Escom in the event of a nuclear accident "were probably the only courses of action open to us."

"But the fact that their plans only affected people within a 16 kilometre radius of Koeberg was absolute naivety," he said.

Dr Coogan made a plea that the imaginary 16 km line be extended because of the peculiar meteorological patterns of Table Bay.

It is well known that circulatory breezes blow from the northern coast via Robben Island into the basin of the mountain via Green Point. There may also be dispersion to Sea Point.

In the report Dr Coogan disagreed with Escom officials who maintained that no member of the public had ever died of radiation — not even at Three Mile Island.

Quoting the Pennsylvania Secretary of Health at the time of the nuclear accident, he said the neonatal mortality rate within a 16 km radius of Three Mile Island was 8.6 and 7.6 for 1000 live births before the accident. These rates jumped to 17.2 and 19.3 during the accident period.

Fresh row may point to exit of

Ghana nips coup in bud

The Star's Africa
News service

6 Nov. 1982.



"He forgot to contact Koeberg alert."

w/le ARBUS

55 D (H)

The threats when SA goes nuclear...

A SOUTH African physicist has estimated that if Koeberg nuclear power station suffered a "worst case accident" (WCA) it would kill 350 000 people.

JUST how bad would it be if Koe-

"The very large numbers of fatalities which are so often quoted for hypothetical accidents, such as the 104 000 deaths from the German Risk Study, could be more seen."

A SOUTH African physicist has estimated that if Koeberg nuclear power station suffered a "worst case accident" (WCA) it would kill 350 000 people. Escom puts the figure at 135 000.

In Germany an official risk study completed this year "taking the most pessimistic assumptions," and considering the large population (80 million), concluded 104 000 "could die."

Whatever the figures it all sounds catastrophic and is profoundly disturbing to the public. But the figures give a picture which may be unnecessarily alarming and very misleading.

The trouble with WCAs is that, depending on one's imagination, one can make them as bizarre as one pleases.

Take an aviation WCA. One can have a fully laden Jumbo plummeting into a crowded football stadium — or one could have two Jumbos crashing into each other over Ellis Park with a stray engine falling on a dynamite truck...

SUDDEN DEATH

But there is still a fundamental difference between an air disaster and a hypothetical nuclear power station disaster. If one says "50 000 could be killed" everybody would understand. Death would come suddenly and massively.

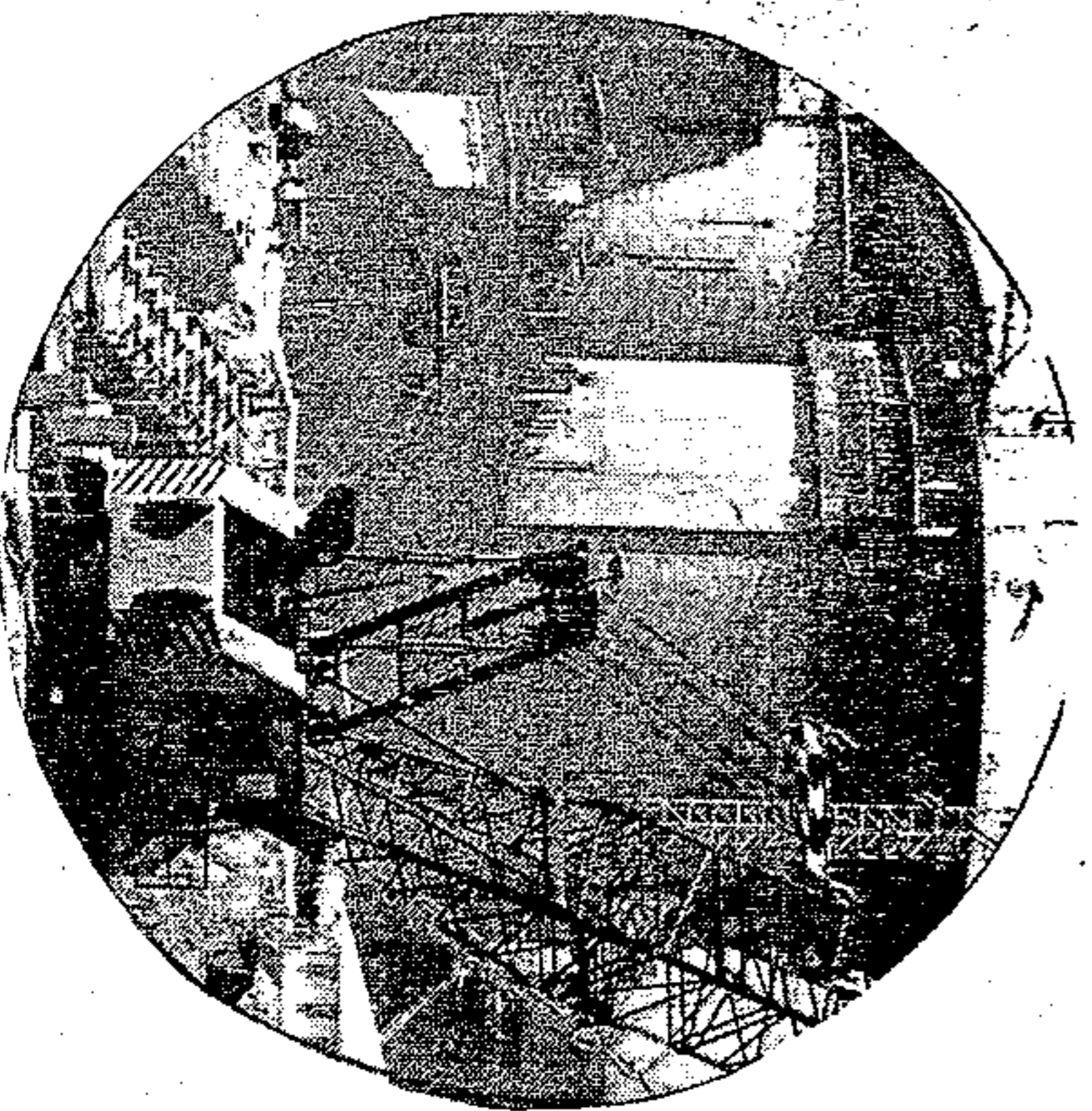
And, of course, air disasters do happen. They are real enough. There is a probability about them (But nobody has ever tried to start an anti-flying lobby).

With nuclear WCAs we are talking of something hypothetical. Something which has never happened and which, the pro-nuclear lobby insists, requires an improbable sequence of events.

CONFUSION

Sir Walter Marshall, chairman of Britain's Central Electricity Generating Board and, until recently, chairman of the UK Atomic Energy Authority, spoke at the International Conference on Nuclear Power Experience in Vienna a few weeks ago. He blamed his own industry for much of the confusion over the huge death tolls predicted in the case of a reactor disaster.

JUST how bad would it be if Koeberg, which will be switched on in the next few weeks, had a "worst case accident?" JAMES CLARKE looks at the odds.



"The very large numbers of fatalities which are so often quoted for hypothetical accidents, such as the 104 000 deaths from the German Risk Study, could be more accurately described as averse health effects leading to premature deaths from radiation-induced cancer over a period of 30 years starting from 10 years after the imaginable big reactor accident."

At first glance that sounds as quaint as Wordsworth's biographer, who said the poet "died of nothing serious." But as Sir Walter ploughed on in reading his long paper it began to make sense.

LONG DEATH

Although some victims in a WCA would die soon the majority would die in the years to come — some of them 40 years later.

"The short-term deaths following an accident would be very much lower than the number of long-term cancer deaths: the latter being the basis of the misleading large numbers so often quoted in newspaper headlines," said Sir Walter.

The great majority of victims included in the German's pessimistic toll would receive one rem of radioactivity — *on average*. One rem's effect on health would be equivalent to smoking a fifth of a cigarette once a week for 30 years.

Is a major reactor accident so improbable? What about Three Mile Island? Here was a potential disaster caused by technicians who decided the computerised emergency process was not behaving correctly "when in fact it was."

The Atomic Industry Forum — a clearing house for information from within the nuclear industry and which painstakingly lists all incidents — said recently: "The risk of a malfunction causing core damage at a nuclear plant was higher at the time of the Three Mile Island accident than had been believed, but safety improvements instituted since then have closed the gap."

Apart from Three Mile Island no other serious accident has occurred regarding nuclear power stations.

In its nuclear plant safety precautions the industry is almost neurotic. But one can sense its rising ire: when it was accused and evasive a few years ago it was accused of covering up which was fair enough. Now that it treats every tiny incident like a notifiable disease it is accused of a Charlie Chaplin-like clumsiness.

D-day for historic SA breakfast thorough

ES S Times 7/11/82

By JOHN SPIRA

SOUTH Africa could be on the verge of clinching a major and historic international contract which will be worth an estimated R1 000-million in foreign-exchange earnings.

Today is D-day for the award of a mammoth \$1 500-million Chilean oil-from-gas project for which an international consortium with strong South African involvement has tendered.

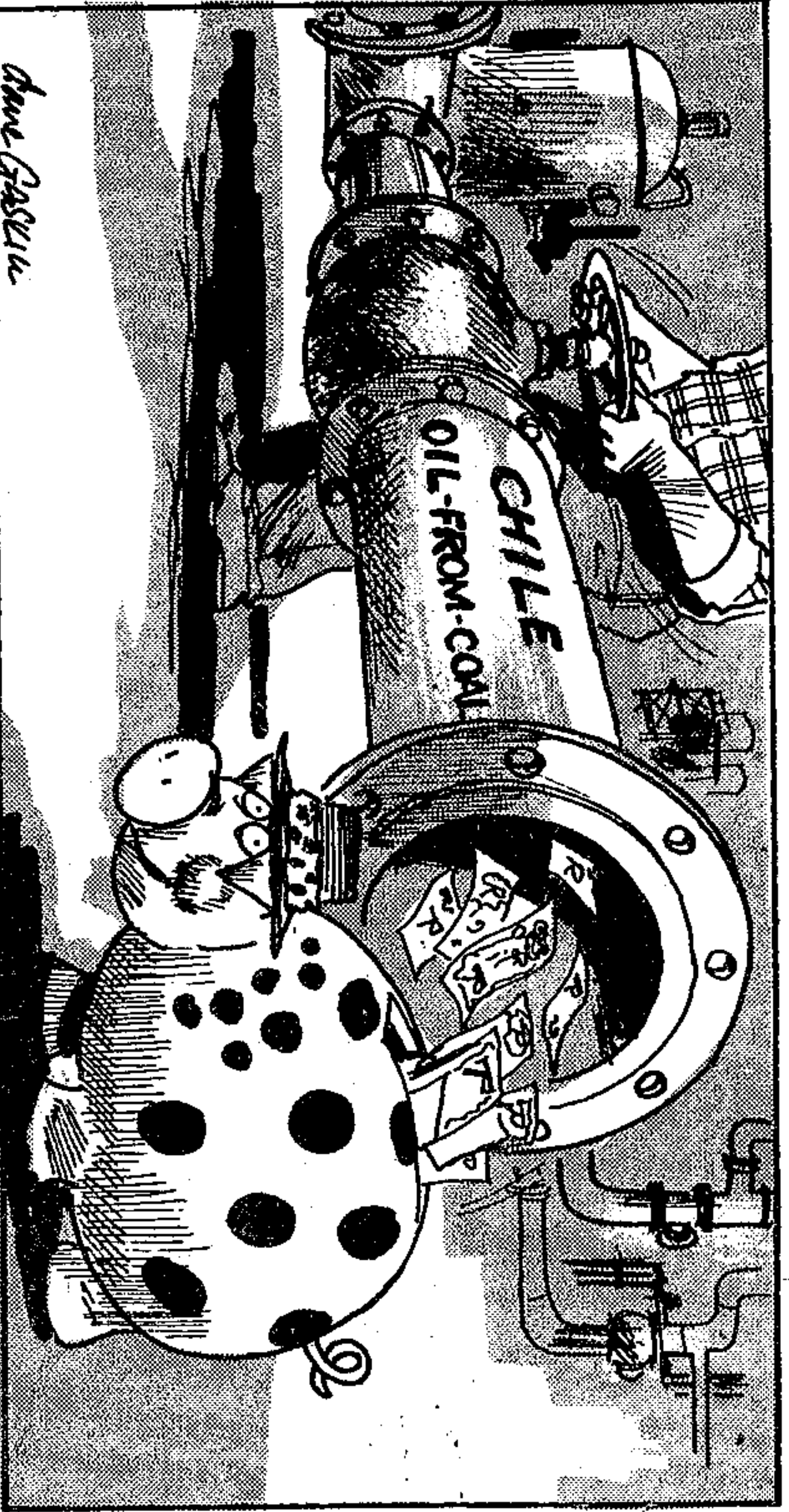
South Africa's interest in the project has been a closely guarded secret, although speculation as to who might be the successful tenderer has been rife in the Chilean financial Press during the past few days.

Advising the consortium bidding for the contract on the basis of the Sasol oil-from-gas process are Johan-neburg-based Rand Merchant Bank and Fluor Corp, the giant US group which played a large role in the establishment of Sasols 2 and 3. Sasol itself is not directly involved in negotiations at present.

Johan Rupert, managing director of Rand Merchant Bank advises that the consortium which he represents is up against stiff competition, the major contenders being: ● Wheelabrator Fry (an American group with annual sales of \$1 500-million), which has based its tender on the conversion of gas to methanol.

● A consortium representing several multinationals, which aims to sell liquid nitrogen gas to Spain.

The consortium which Mr Rupert represents has based its proposals on the Sasol process, with the first stage (gas from coal) being omitted because the tender requires that Chile's vast reserves of natural gas be exploited in the most advantageous



Should the Rand Merchant Bank-advised consortium be awarded the contract, then much of the infrastructure which went into Sasols 2 and 3 will be duplicated in Chile. It is envisaged that the products required — estimated by Fluor to be worth R1 000-million — would be manufactured in South Africa and then shipped to Chile over a period of two years from 1984 to 1986.

Since the majority of such products would be steel-based, the local steel industry would receive a massive shot in the arm — along with South Africa's balance of payments.

Mr Rupert points out, too, that the contract would serve as an inducement for the many foreign, highly skilled

engineers who have been working at Sasol to remain in this country. Significantly, the R1 000-million South African export involvement excludes the payment of any fees to Sasol for the use of its process.

Another feature of the tender is that it provides South Africa with the option of receiving payment in the form of diesel and petrol from the proposed plant.

Mr Rupert advises that interest in the Sasol process has been high in Chile. A model of the Sasol plant was recently exhibited at an international industrial fair there, while the Chilean Minister of Energy, General Herman Brady, recently visited Sasol.

(See also "Rand Merchant Bank shines", Page 3)

EVERY CANDIDATE MUST enter in column (1) the number of each question answered (in the order in which it has been answered); leave columns (2) and (3) blank.

	8			(1)	Internal
	16	14 = 58		(2)	Internal
				(3)	External

- 7. Candidates must not communicate with other candidates or with any person except the invigilator.
 - 3. No part of an answer book is to be torn out.
 - 4. All answer books must be handed to the commissioner or to an invigilator before leaving the examination.
- Red or green ink may be used only for writing, emphasis or for diagrams, for which pencil may also be used.
- Answers must be printed on each separate sheet (graph paper) where sheets additional to examination book(s) are used.
- Do not write in the left hand margin.

Any dishonesty will render the candidate liable to disqualification and to possible exclusion from the University

Robert D

A DRAMATIC bid to delay the Koeberg nuclear switch-on is being made by Cape Town City Council after an amazing public row between the city and Escom.

The council is seeking an urgent meeting with the Atomic Energy Corporation to request that it withhold Koeberg's operating licence because of a dispute over emergency measures to cope with a nuclear accident.

This follows a week of exchanges, in which an Escom executive said the safety measures were "not the public's concern", and Cape Town's medical officer, Dr R J Coogan, accused Escom of "absolute naivety".

Confusion

Dr Coogan also warned that Escom and Cape local authorities should "learn the lesson of Three Mile Island before it was too late".

"When disaster struck at Three Mile Island there was confusion and panic. In Cape Town there is already confusion," he told the Sunday Times.

The giant Koeberg power station, only 40km from the centre of Cape Town, is expected to come on stream in about two months' time.

At the centre of the row is Escom's emergency plan to cope with a nuclear disaster at Koeberg.

Details of the controversial plan were unveiled recently by Escom, but Cape Town's Dr Coogan, who is highly regarded in medical and local government circles, is angry because the City Council was not consulted in its drafting.

'Tea party'

Acting on a recommendation by Dr Coogan this week, the council is to petition the Atomic Energy Corporation to hold back Koeberg's operating licence until Escom consults the council.

Dr Coogan voiced his alarm over the Koeberg safety plan in a detailed "urgent" report to the council.



DR R J COOGAN
Drafted an urgent report

In it, he claimed Escom reneged on assurances that the council would be involved in drawing up the safety procedures.

He described the one and only meeting between representatives of local authorities and Escom officials —

constituting the Koeberg Liaison Committee — as "a tea party for lay members of local authorities".

Neither he, nor the council's air-pollution and civil defence officials were present.

He allied himself with a statement from the Three Mile Island Commission's 1979 report to the President of the United States that in the event of a nuclear accident "insufficient advance planning could be extremely dangerous".

Responding to Dr Coogan's attack, Escom's regional manager, Mr G F Hellstrom, was reported earlier in the week as saying the formulation of the Koeberg safety plan was "not the public's concern".

Disagreed

He was not prepared to reply to "emotional outbursts" and said a suggested public forum where conflicting views could be thrashed out would "serve no purpose".

Later, in a bid to defuse the row, he telephoned the Mayor, Mr Kosie van Zyl, and said Escom would in future liaise more closely with the council.

In his report, Dr Coogan accused Escom of "absolute naivety" in that their plans affected only people living within a 16km radius of Koeberg.

He said it was well-known that the circulatory breezes blow from the northern coast via Robben Island and into the Table Mountain basin ... right over the central city.

In a publication explaining the controversial emergency plan, Escom maintains that the chances of an "incident hazardous to the public" at Koeberg are "very remote".

And in the "unlikely event" of an accident, Escom says sirens would alert people living within a 5km radius of Koeberg, and police or unspecified emergency workers would alert others with loud hailers.

Astonished

Radio programmes on all channels serving the area would be interrupted and people would be advised what to do.

Basic precautions include taking shelter inside closed-up houses to avoid radiation, taking stable iodine tablets and in extreme cases conducting a mass evacuation in a fleet of buses and shared private transport.

Dr Coogan feels this could not be done without involving city officials — health workers, civil defence personnel and traffic police.

For example, he said he was "utterly astonished" when he heard Escom's plan involved moving "up to 20 000 evacuees (some already irradiated?)" to Goodwood Showgrounds in a fleet of 600 buses.

Storm clouds over Koeberg

BY SARAH HETHERINGTON

CITY COUNCIL BID TO DELAY SWITCH-ON IN ROW WITH ESCOM OVER SAFETY

55

S. T. ... 7/11/82

kbh 2/11/82

'Speak out on Koeberg safety'

THE Koeberg power station should not become operative until consensus had been reached on emergency measures to cope with a nuclear accident, the Progressive Federal Party spokesman on Mineral and Energy Affairs, Mr John Malcomess, said yesterday.

Mr Malcomess was reacting to a report in the Sunday Times in which the regional manager of Escom, Mr G Hellstrom, was quoted as saying the formulation of

safety measures for Koeberg was not the concern of the public.

"If the public is kept in the dark on matters affecting their safety, they will naturally view the programme with suspicion," Mr Malcomess said.

The Cape Town City Council was the official spokesman for the people of the mother city, yet it had reportedly not been consulted on the proposed safety measures and was dissatisfied

with them, Mr Malcomess said.

"I therefore call on the Minister of Mineral and Energy Affairs to convene a meeting of the Cape Town City Council, the Divisional Council, Escom and the Atomic Energy Corporation as soon as possible to solve the problem."

Mr Malcomess said it was apparent that safety measures at Koeberg had become a source of great controversy. — Sapa.

Big cut in power accounts

155
E. Post
1/1/82

By SHELAGH
BLACKMAN

Municipal Reporter

THE City Treasurer's Department has released details of the reduced electricity accounts which Port Elizabeth consumers can expect this month.

Last week the city received a cheque for R4,3 million — the first instalment of the Government subsidy on electricity.

Industrialists and other large consumers whose meters were read on a monthly basis could expect 70% off their electricity accounts this month, a spokesman for the City Treasurer's Department said today.

In other words if they were accustomed to paying about R200 a month they could expect to pay about R60.

Domestic consumers had their meters read every second month so the policy adopted in their case was different, the spokesman explained.

Those whose meters were read this month could expect reduced accounts — the rest of the domestic consumers could expect to reap the full benefits of the rebate next month.

A total of 39% would be deducted for the two month consumption period.

If a consumer's full account for October and November amounted to R80 — the reduction would be R31,20.

Assuming the consumer had paid a provisional account of R40 last month, he would only owe R8,80 this month (R40, the balance owing on the two-month account less the consumer's share of the subsidy), the spokesman explained.

● This month is a bumper month because the city received a cheque from the Government to cover the period from April 1 (when the Government announced its decentralisation policy) to the implementation of that policy (end of July).

In future the city will claim its subsidy from the Government each month and the consumers' share of this will be deducted from their accounts on a monthly basis.

S. Times 4/10/82

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Beware the next energy earthquake — report

By Stephen Orpen

DON'T rely on the stability in the oil market holding much longer.

That is the gist of the latest report from the International Energy Agency (IEA).

The report says the current outlook for short-term stability in energy markets is deceptive.

Existing surpluses in the oil market do not reflect groundswell longer-term trends.

The new study forms part of the second of the new IEA *World Energy Outlook* series.

The underlying trends, say the report, suggest stringency in oil supplies recurring later in the 1980s.

These trends underscore the pressing need for a more careful formulation of energy policies.

The study, published by the IEA secretariat, concludes that most basic energy policies and economic systems necessary to encourage a balanced energy market are running reasonably smoothly in the member countries of the Organisation for Economic Co-operation and Development (OECD).

Policies implemented since 1973 — together with the recent sharp oil-price

rises — have led to gains in energy efficiency and the substitution of other fuels for oil.

Since 1973, the study reveals, inputs of both energy and oil per unit of gross domestic product (GDP) have declined significantly.

In 1980, real GDP in the OECD countries was 19% higher than in 1973, but energy consumption had expanded by only 4% while oil use was 3% below its 1973 level.

Qualifying these achievements, however, is the fact that these structural improvements in the industrial countries may owe less to deliberate policy action than is generally believed.

The IEA study says recent reductions in demand have resulted from the combined effects of stock drawdowns, changing weather and, most

important, weak economic growth.

The *Outlook* contends that the brakes on demand exercised by earlier oil price increases will gradually be absorbed.

Thus, if market signals are not reinforced by strengthened energy policies, demand for energy will accelerate in the long run and reverse the progress already achieved.

Specifically, the study's projections show that, from the mid-1980s, the oil market is likely to move into disequilibrium because of world oil demand, especially in member countries of the Organisation of Petroleum Exporting Countries (Opec) and other developing countries, falling output in North America, the North Sea oilfields and the USSR, and reduced oil exports from some Opec countries.

If such developments coincide with limited progress in substituting other fuels for oil, significant oil-price rises and major market disruptions could follow.

The instability in the Middle East, the report stresses, is an added major risk.

The study assesses the longer-term energy outlook under three scenarios. ● The first two — High Demand and Low Demand — try to quantify the likely effects of market forces (prices and economic growth) under present policies. ● The third scenario — the Low Oil Reference case — provides an analysis of national projections of energy balances.

The results under the two quantitative scenarios suggest a difficult equilibrium in oil supply and demand beginning from the mid-1980s, with increased demand in the next decade tending to surpass available oil supplies.

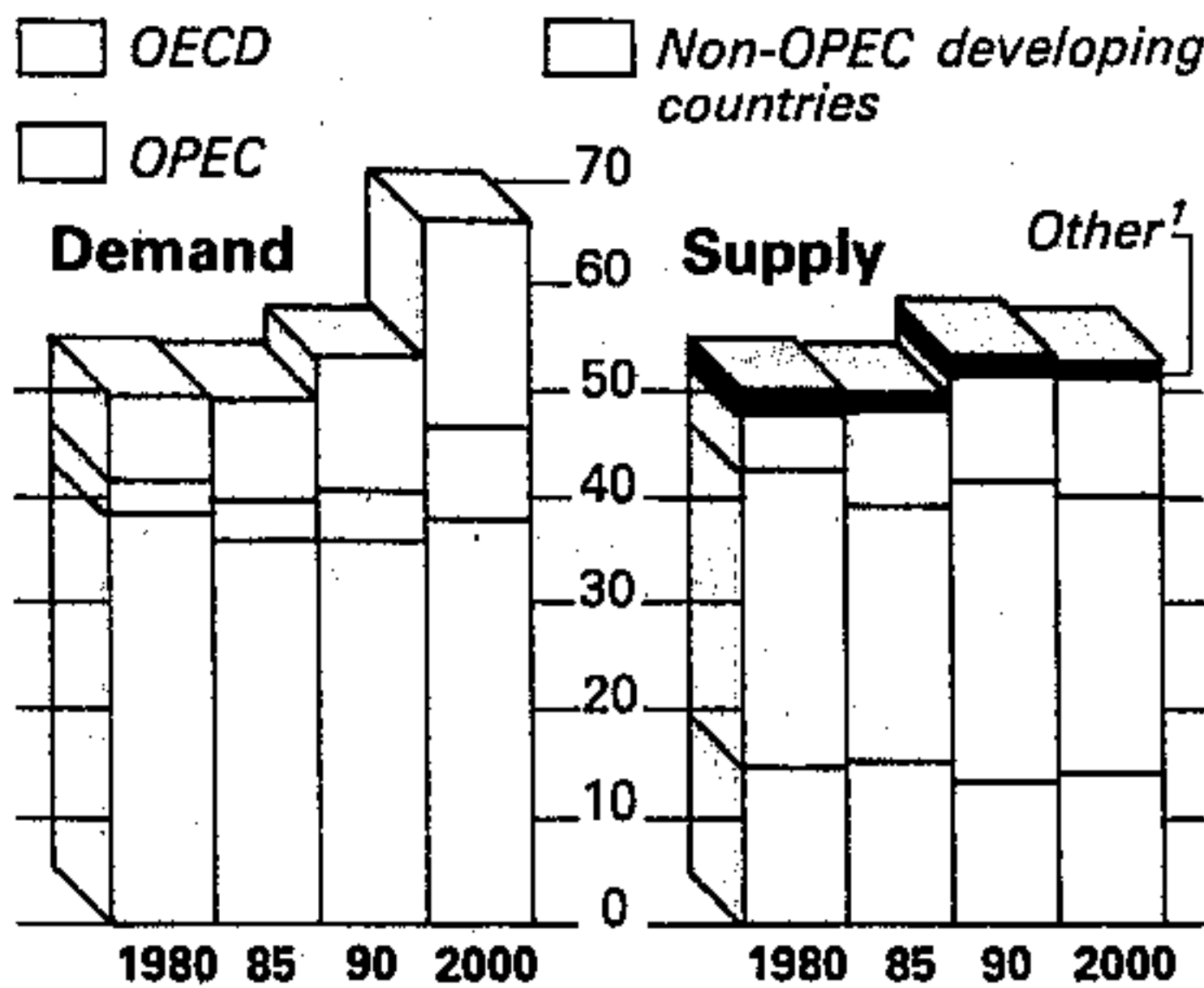
The report's figures point to future situations where balance in the oil market may be restored only through sharp oil-price increases at the cost of reduced economic growth.

The Low Oil Reference case assumes a steady, moderate rise in OECD energy supply and demand, which occurs without triggering undesirable price pressures.

It is based on continuing structural change through increased energy efficiency and inter-fuel substitution.

World Oil Outlook

(million barrels per day)



¹Centrally planned economies and volume gains from refining.

Note: The figures for 1985, 1990, and 2000 are based on the mid-points of projected ranges of likely demand and supply.

Data: IEA, *World Energy Outlook*, 1982

OECD Energy Demand and World Oil Balance¹

(million barrels a day)

	1980	1985	1990	2000
World oil demand	49.5	48-50	50-56	58-74
OECD countries	38.7	35-36	34-37	33-43
OPEC countries	2.9	4	5-6	8-9
Non-OPEC developing countries ²	7.9	9-10	11-13	17-22
World oil supply	49.5	48-50	50-52	49-53
OECD countries ³	14.8	15	14-13	15-13
OPEC countries ⁴	27.5	23-26	27-29	24-28
Non-OPEC developing countries	5.3	8-9	8-11	9-13
Centrally planned economies— net exports (imports)	1.3	1-(1)	0-(2)	0-(2)
Processing gains ⁵	0.6	0.6	0.6	0.6
Excess demand	—	—	0-4	9-21

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Bruce McMurray, headmaster of the school, said the teams made their investments on their initiative. The winning team of Schitz, C Schulman, and F... more than doubled their... to R20 895.



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Staff Reporter

A new generation of cheaper, space-saving power transmission towers to meet the rapidly growing electricity needs of South Africa will soon appear across the countryside.

The new towers will carry lines with four times more capacity than the normal 400 kv towers to link new power stations supplying about three times the power at present used by Johannesburg to the national grid.

The new 45-metre towers will cover about 440 km from Tutuka Power Station, near Standerton, to an 800/400 kv sub-station near Dealesville.

About 4 000 km of 800 kv transmission lines are planned across the country in the next 10 years. The estimated construction costs are about R200 000 for each kilometre as against R400 000 for 440 kv lines.

Escom's assistant chief electrical engineer, Mr Denis Duffield, explained that the cheapest way of sending large blocks of power over long distances was to use a high transmission voltage.

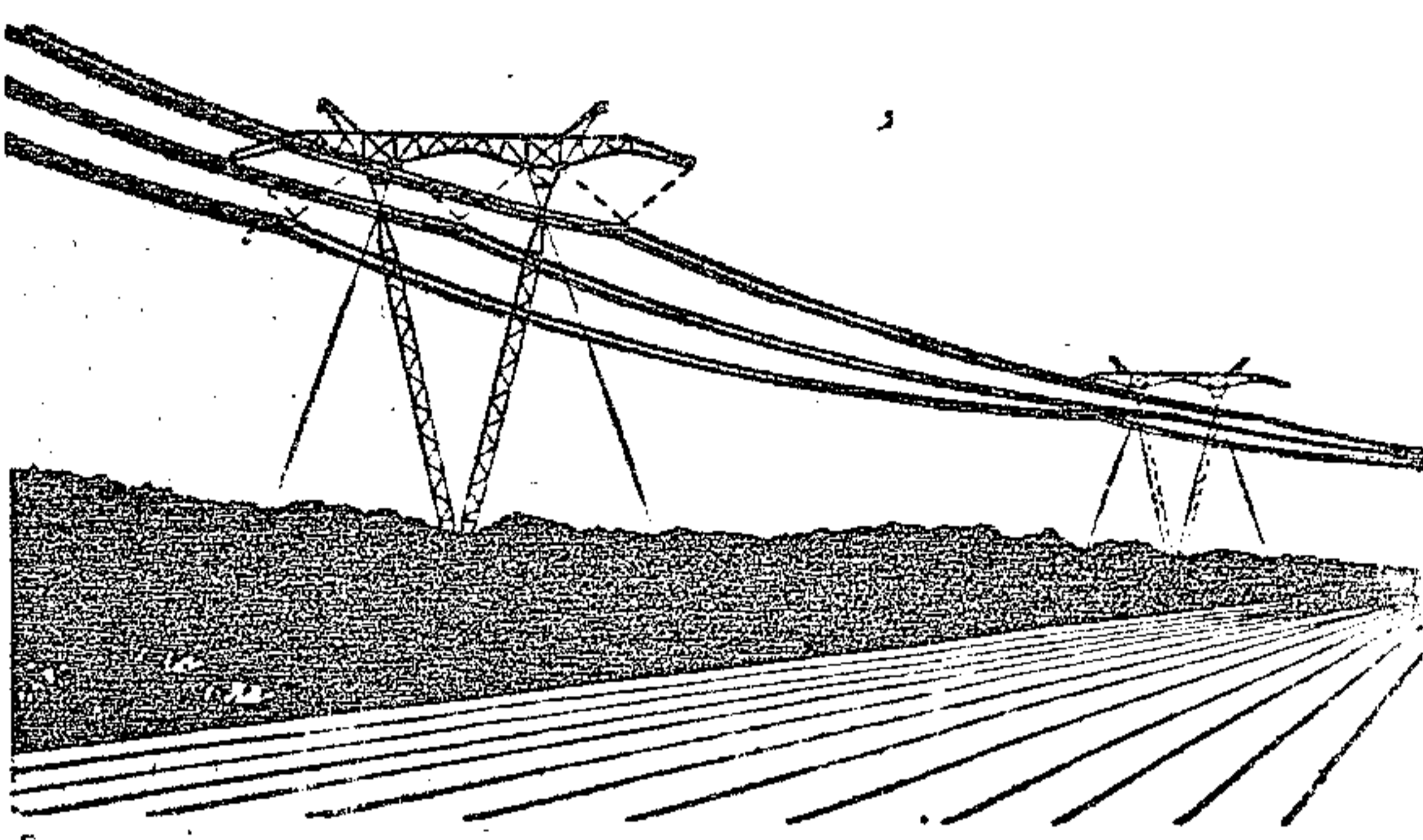
To develop the monster 800 kv lines, Escom built its own test facilities, and collaborated in research with the National Electrical Engineering Research Institute of the CSIR, the South African Bureau of Standards and Cesi, an Italian research organisation.

Because the lines have to operate at high altitudes (1 200 m to 1 800 m), the design provides large air clearances and uses a bundle of six lines on each phase. Air is the cheapest insulation.

To prevent shorting or arcing, a new high-voltage impulse generator has been used in a programme of measurements on the electrical strength of air to determine the optimum distance between the lines and the supporting tower in a transmission line.

The generator installed at the National Electrical Engineering Institute is among the

New power lines will cut erection cost



How the power transmission lines will look on the land.

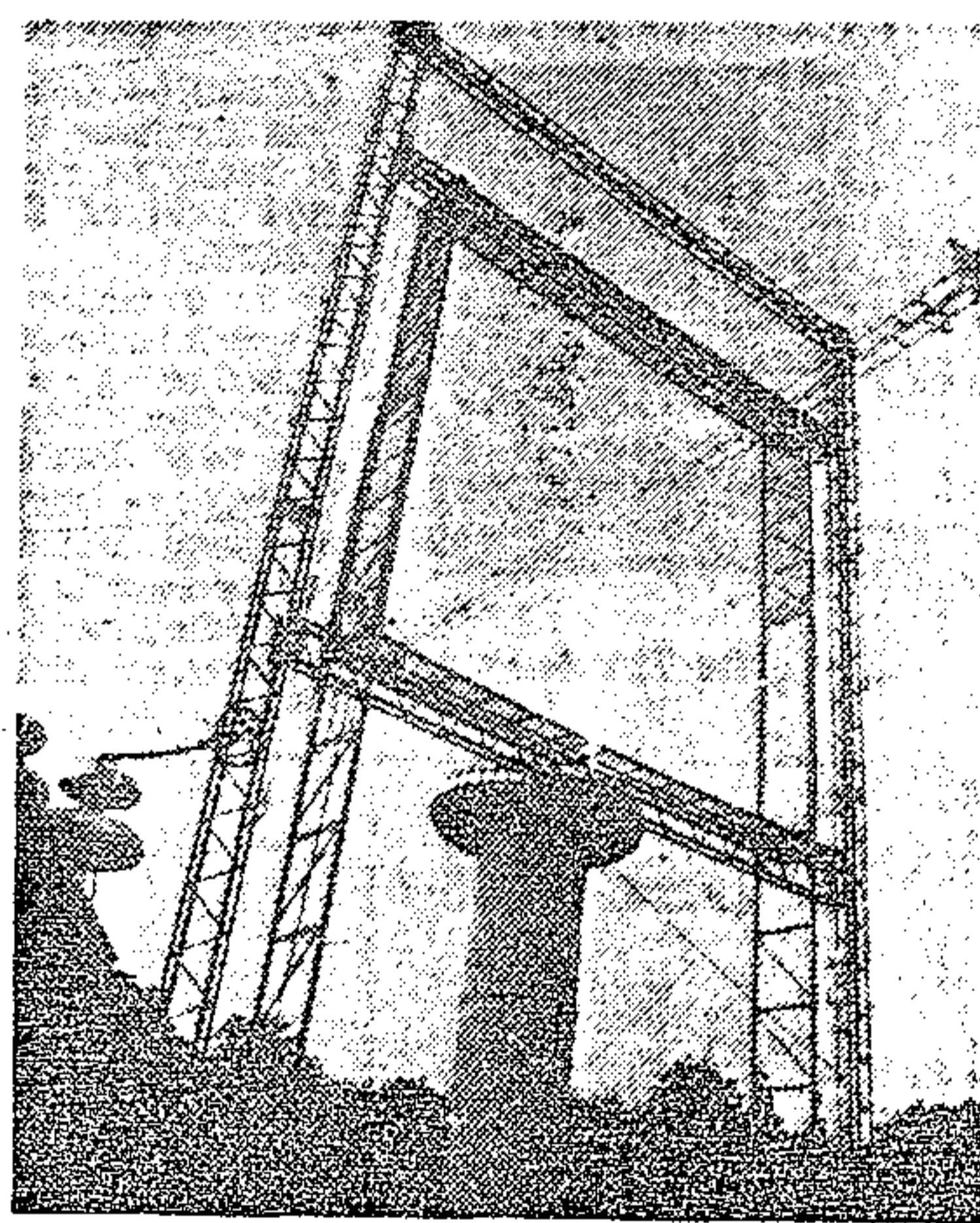
10 most powerful in the world. Although transmission voltages as high as 800 kv have been used on a limited basis elsewhere, South Africa will be the first country to apply these under Highveld conditions.

At these altitudes, the thinner air is weaker electrically (its insulation properties are diminished) and, to arrive at the design of a reliable high-voltage line, it has been necessary to find the electrical strength of the air-gaps planned for the new power line towers.

During these tests impulses of various kinds were applied to simulate the range of electrical disturbances found in a practical transmission system, such as switching and lighting.

Escom engineers examined the possible ways the new system might be a threat to health and safety or might cause inconvenience or environmental pollution.

They say that though the danger of electrocution cannot be eliminated, the sheer size of an 800 kv system reduces this danger to a minimum.



A flash-over occurs on a mock-up kv power line during research conducted to determine the optimum air-gap between the power cables and the support structure.

be virtually unscalable. The schematic map shows the proposed network of 800 kv lines planned for 1983-82. The routes will be confined to rural areas although certain sections of line will be visible from the outskirts of some small towns.

The towers of an 800 kv line will be con-

Escom is negotiating rights of way with farmers and other land-owners. Servitudes will be registered over a strip of land 80 metres wide. No buildings may be built within 40 metres or trees planted.

Wherever possible, the planned routes will avoid existing buildings and boreholes.

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lines will cut erection cost

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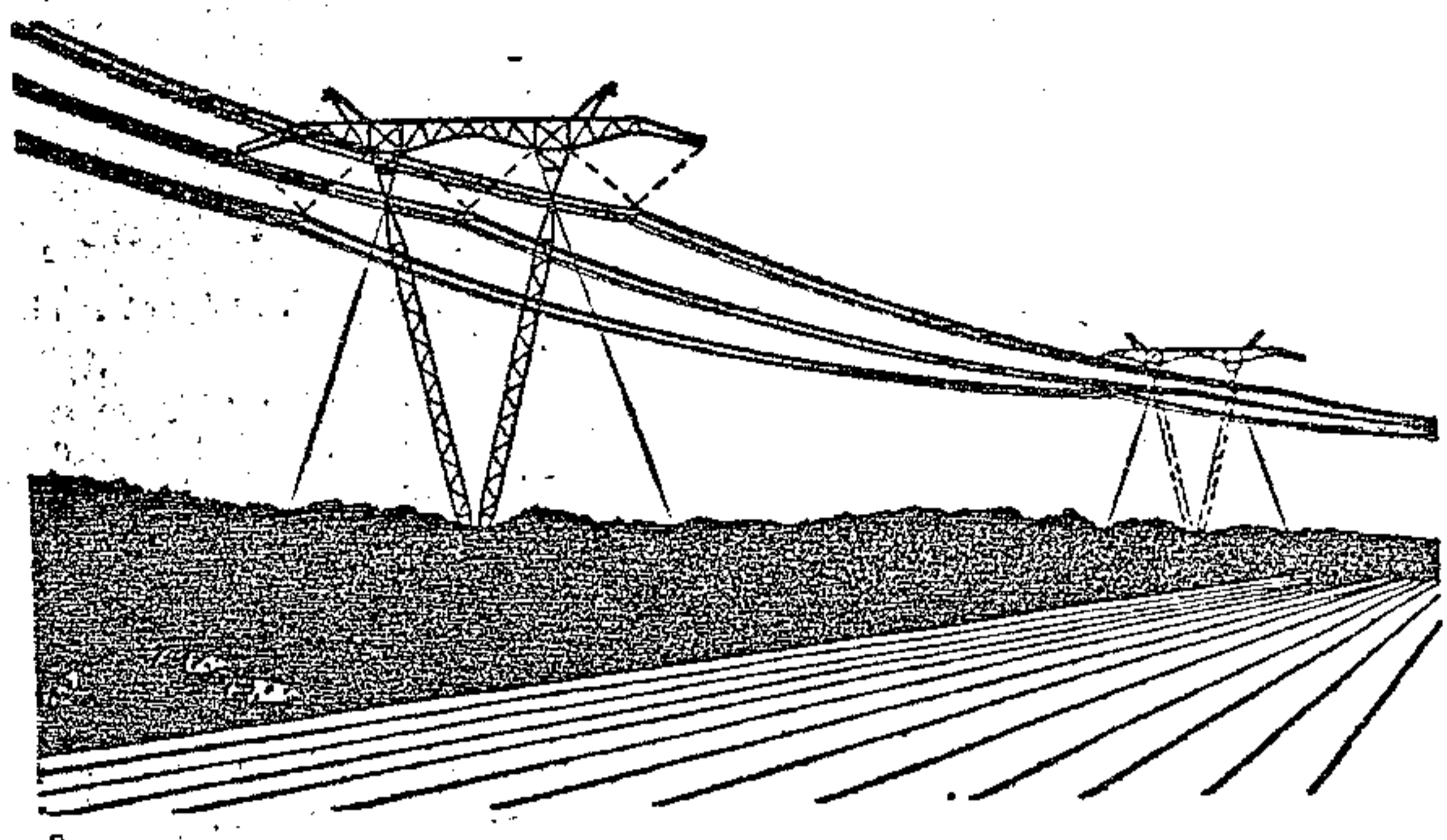
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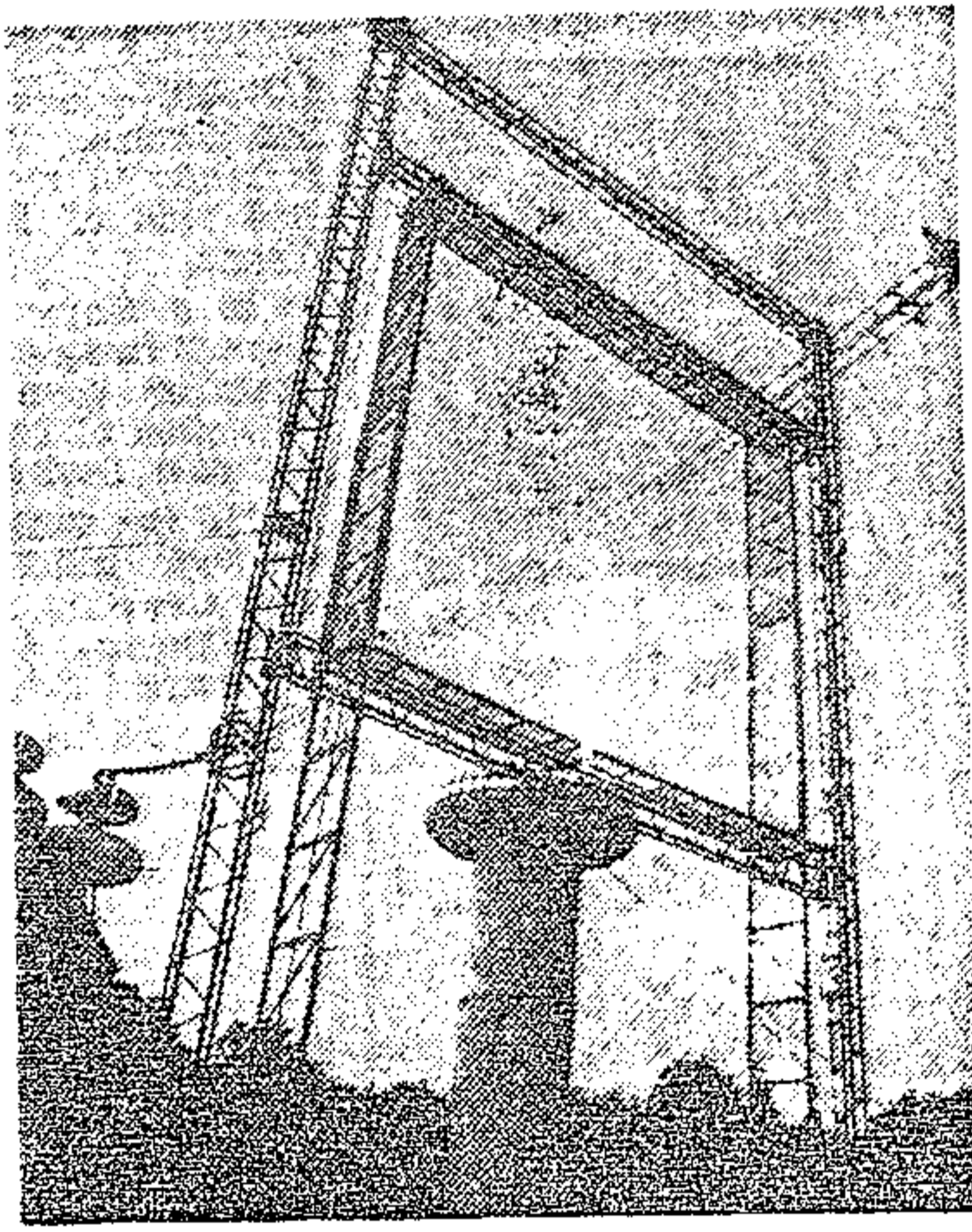
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Escom engineers examined the possible ways the new system might be a threat to health and safety or might cause inconvenience or environmental pollution.

They say that though the danger of electrocution cannot be eliminated, the sheer size of an 800 kv system reduces this danger to a minimum.

The maximum height of the new line at mid-span will be 15 metres above the ground and the towers themselves, guyed with cables, fitted with anti-climbing devices, will



A flash-over occurs on a mock-up kv power line during research conducted to determine the optimum air-gap between the power cables and the support structure.

be virtually unscalable.

The schematic map shows the proposed network of 800 kv lines planned for 1983-92. The routes will be confined to rural areas although certain sections of line will be visible from the outskirts of some small towns.

The towers of an 800 kv line will be considerably larger than those of a 400 kv line. Although 400 kv lines often run at least in pairs it will be seldom necessary to have more than one 800 kv line crossing a single farm

Escom is negotiating rights of way with farmers and other landowners. Servitudes will be registered over a strip of land 80 metres wide. No buildings may be built within 40 metres or trees planted.

Wherever possible, the planned routes will avoid existing buildings and boreholes. Farmers say Escom can safely continue to use this land for grazing or cultivation.

There will be compensation for crop damage during construction or maintenance.

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Nuclear power site
Start 12/11/82
not chosen yet — Escom

Escom yesterday denied reports that Port Alfred in the Eastern Cape or any other site had been chosen for South Africa's second nuclear power station.

French industry heads have urged their government to approve a second nuclear power contract with South Africa.

"As far as nuclear power station sites are concerned, we are not even near the selection."

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the Far East.

In the first six months of this year imports of worsted fabrics were up 40 percent, cottons 37 percent, and polyester cotton 22 percent.

Mr Jooste asked: "Why should we help to give a textile worker in Taiwan or Hong Kong wages to take home, when our own people are being thrown out of work?" — Sapa.

Chetty
stays off
roll of
attorneys

Own Correspondent

Mr Shaun Chetty, the fugitive political trials lawyer, has lost his application to the Pretoria Supreme Court to have set aside the order that struck him from the roll of attorneys in 1980.

Mr Chetty was in practice as an attorney in Johannesburg until August 8 1979 on which date he fled from South Africa. On September 16 1980 the Pretoria Supreme Court made an order, arising from an application by the Law Society of the Transvaal, striking Mr Chetty from the roll of attorneys.

DENIAL

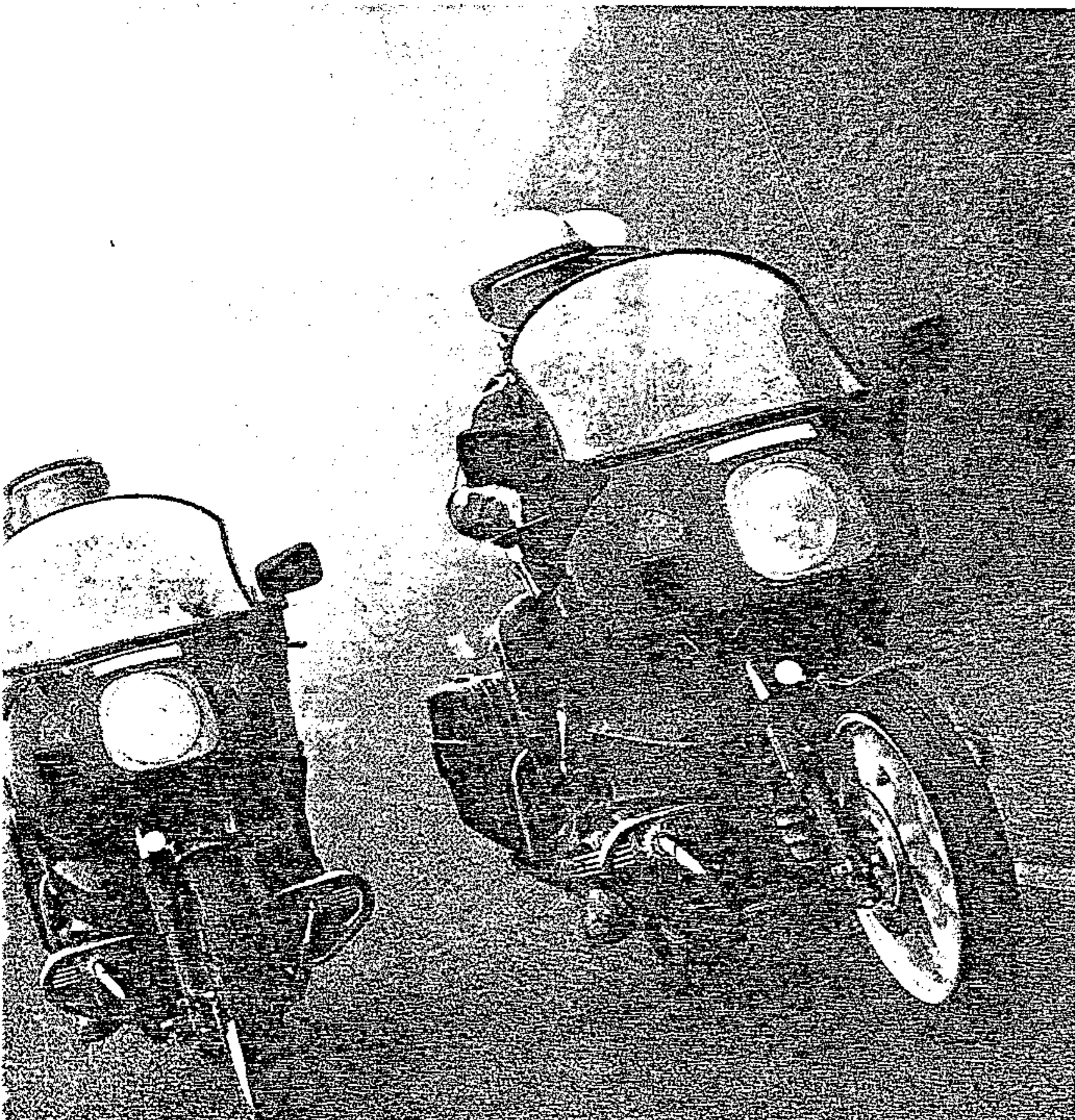
Mr Chetty did not appear at that hearing and no answer was made to the law society's allegations even though extensive time had been granted.

In October Mr Chetty applied to the court for rescission of the judgment and order and applied for condonation of his failure to answer promptly.

He denied leaving the country to avoid the consequences of misconduct as an attorney. He said he left because he was harassed by the police.

COSTS

Mr Justice B O'Donovan and Mr Justice A P Myburgh said it must have been clear to Mr Chetty that his flight from the country would avoid the investigation in which the Law Society was then engaged.



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RBM 20/11/82

Synfuel vital for SA energy

Financial Reporter

COAL now supplies over 80% of South Africa's primary energy needs — but imported oil is still of "vital significance" to the economy.

An analysis of SA's fuel supply was given to the Financial Mail investment conference in Johannesburg yesterday by Mr J A Stegmann, managing director of Sasol.

He said: "Until we know that we can rely on a commercial crude oil source of our own, we would be well advised not to abandon further investments in synthetic liquid fuels production merely because the international climate militates so much against it.

"The challenge is formidable.

"The conditions for investments in this field are not as

favourable as they were some years ago, but if the necessary adjustments to the overall framework for the synfuels industry are made by the Government I am sure that new investments will be forthcoming."

Mr Stegman said that in energy South Africa had "naught to fear" and if well timed, the new synfuel projects should become an important force, stimulating a phase of economic growth to the benefit of all the peoples.

In the international oil industry, as in most other industries, it was generally believed that there would be no recovery of economic activity during the first half of 1983 and probably also not in the second half.

It was also believed that there would be no buoyancy in oil demand.

"In a weak market many things are possible, but most analysts expect that differentials will tend to narrow in the coming months, but that

a significant reduction or collapse of the price is not likely.

"The relatively weak demand is expected to continue throughout most of next year."

Mr Stegmann said: "By making good use of our coal resources, most of which can be mined at relatively low cost, our economy is today largely fuelled by coal as the main source of energy.

"Escom, whose coal-fired power stations account for about 55% of the South African coal production for internal use, has been at the centre of this development.

"Coal now supplies more than 80% of our primary energy needs.

"The percentage is still increasing as Sasol Three is coming into full operation, thus replacing imported crude oil with local low-grade coal.

"Coal is, and will continue throughout this century to be, the major source of energy in South Africa.

"Sasol's current production of coal, all of which comes from our own collieries at Sasolburg and Secunda, is at the rate of 27-million tons a year, representing 26% of the country's coal production for internal use.

"South Africa is, therefore, in a relatively sheltered position as far as its dependence on imports for primary energy needs is concerned.

"However, this should not lead us to complacency.

"The amount of imported crude oil is still of vital significance to our economy and particularly to the transport and agricultural sectors."

20m 21/1/82
**SA included
in 'nuclear'
countries**

NEW YORK. — Four countries, other than the United States, Soviet Union, Britain, China and France, have or might soon have the ability to make nuclear weapons, the director-general of the International Atomic Energy Agency told the UN General Assembly at the weekend.

Dr Hans Blix also said that as many as 15 other nations had the technical capability of building nuclear weapons but had bound themselves by treaty or policy not to do so.

Dr Blix did not identify either group. But UN sources said he had in mind South Africa, India, Israel and Pakistan, when he said there were countries which "are operating or building un safeguarded facilities capable of making weapons-usable materials".

Dr Blix said: "The technical barriers to reaching nuclear weapons or nuclear explosive capability have steadily eroded and this means that if we are to contain the further spread of nuclear weapons, we shall become even more dependent on political factors and less on technical barriers." — Sapa-Reuter.

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Triumph of planning in R2 000-m power station project

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23/7/82

Escom's Tutuka is born

Financial Staff

Tutuka is the Zulu word for progress. It is also the name of Escom's new power-base in the Standerton district — a 3 600 MW dynamo which could eventually light three Johannesburgs.

Tutuka is the latest of six stations with a total generating capacity of 21 600 MW which, along with such giants as Duvha, Matla and Kriel will power the country's industry in the years ahead.

PLANNING

Backing the R2 000 million Tutuka project is a programme of planning superior to anything used before, for one day lost on such an Escom venture adds up to R200 000.

For instance, tarred roads are already there. Roads, say the planners, will have to be there sometime, so why not build them immediately.

"Programming has improved tremendously," says Tutuka construction manager Tom Jacobs. "In the days of the craftsmen, quality control programmes

were unheard of," he said.

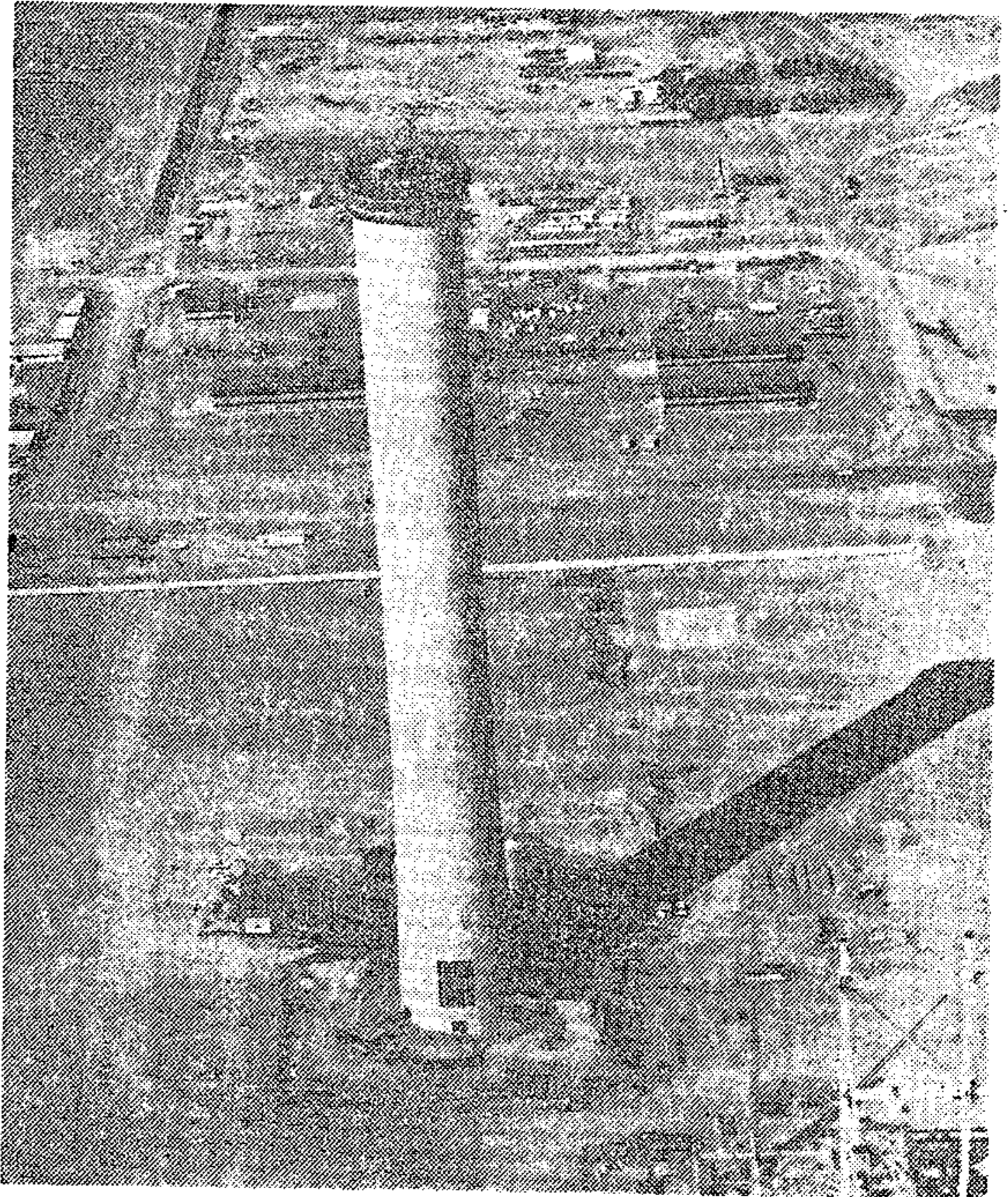
"Now, with the tremendous growth both in sophistication and finance of big projects, quality assurance is an important need."

Tutuka was brought forward 18 months — probably because of the sudden realisation that a power shortage was looming — and yet planning is still in line with contract schedules.

One example of the new schedules is that the first 275 m windshield for the Tutuka chimneys went up in only 53 days — the work of the new construction partnership at LTA and the German group Karrena.

Steinmuller boilers will be driving the GEC turbines when Tutuka first comes on stream in 1985 and even now, High Structures, which is 50 percent owned by main "civils" contractor, Group Five, is five, eight and 12 months ahead of schedule on the three cooling towers.

The cooling towers operation is under the direction of Frans Barnard, who has now about 30 towers to his credit.



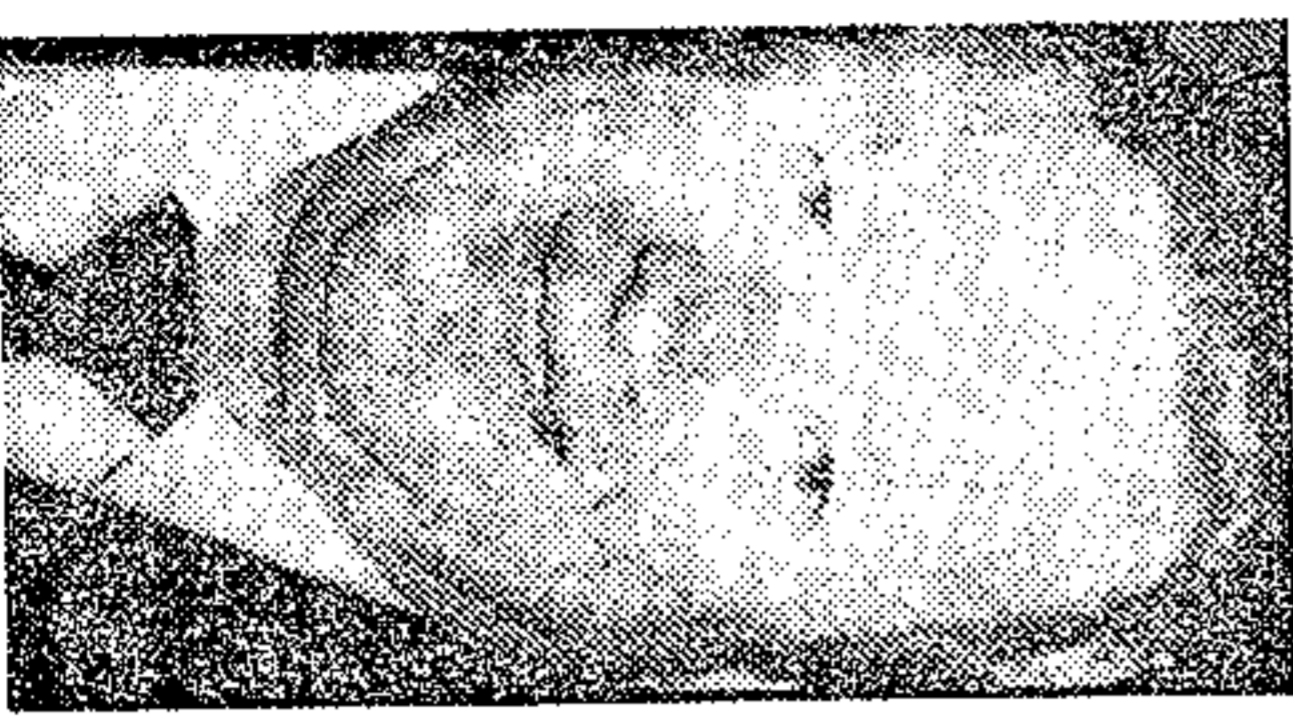
The windshield of the first chimney for Tutuka power station at Standerton seen from a helicopter shortly before completion. The 275 m chimney is being constructed by Karrena Africa.

THE last minute intervention of Dr Reg Coogan has saved Cape Town from entering the nuclear age almost totally defenceless.

The amazing tale of how the mother city's medical officer of health took on the bureaucratic giant Escrom at the eleventh hour and forced it to begin drawing up an emergency plan for the city to cope with a possible nuclear disaster at Koeberg, can be told in full for the first time.

It is a story of extraordinarily short-sighted and high-handed behaviour by Escrom, which seemed set to place the people of Cape Town at the mercy of a possible radiation accident of unimaginable proportions. Now Escrom could be forced to delay the date on which Koeberg goes on stream — which was due to happen within weeks. Dr Coogan has lashed out at the "almost incredible arrogance of the technocrats in making decisions affecting the fate of millions".

How the Cape doctor lifted the nuclear cloud over Cape Town



Dr Coogan

**ONE MAN
TOOK ON
ESCOM
AND
FORCED
A CHANGE
OF PLAN**

551



Cape Town and Table Mountain... the nuclear cloud has been lifted

REPORT BY TONY SPENCER-SMITH

Continued

And he described the emergency plan announced publicly by Escrom last month as "absurdly inadequate" because it applied only up to 16 kilometres from Koeberg, and thus did not include the Cape Town public at all.

He also criticised the apathy of the Cape Town public which almost allowed Escrom to get away with such a thing.

"They just don't know the dangers involved," Cape Town's burly, respected and outspoken Medical Officer of Health was increased when Escrom unveiled his plan in October.

"What I objected to was that they presented it as a fait accompli, without ever having consulted the technical people in the council like myself."

Immediately after the plan was announced, Dr Coogan banged off a shock report to the council tearing it to shreds.

As a result, the Council demanded — and got — an urgent meeting with top-level officials of the Atomic Energy Corporation this month.

The Corporation, in a move which represented a slap in the face for Escrom, agreed that it would grant Escrom an operating licence for Koeberg only when an emergency plan covering all the local authorities in the greater Cape Town area was submitted to it. Such a plan, involving more than a million people, will present staggering difficulties and will

probably take a long time to draw up.

The first meeting to thrash out the plan is to be held this week — and present at the meeting, ready to do battle for the health and even the very lives of Capetonians, will be Dr Coogan.

In his report to the council Dr Coogan recounted in detail how, despite clear assurances earlier this year from Escrom that the council would play a big role in drawing up the Koeberg emergency plan, Escrom had never allowed this to happen.

He said the assurances had been given for the last time on July 24 at a meeting in his office with Escrom officials — but since then no formal involvement had taken place despite a number of inquiries "on our part."

Dr Coogan told me that only when Escrom published the plan in October was he freed from the stranglehold of nuclear legislation which up to then had prevented him from speaking out on pain of a possible long-term jail sentence.

"Only then could I step in and take action. Thank goodness Escrom has been brought to heel now."

In his report, Dr Coogan indirectly raised the spectre of a deadly nuclear cloud moving on the heart of Cape Town when he referred to the "peculiar meteorological patterns of Table Bay."

"It is well known that circulatory breezes blow from the Northern coast

via Robben Island to Cape Town.

"In fact, on July 16 a considerable smoke release was given off from the Koeberg nuclear station itself and this proceeded in classical fashion down towards Robben Island without much dissipation or dispersion and was at the island in about two hours time.

"It is well known to local meteorologists that wind trends often bring fog, smoke, etc from Robben Island area into the basin of the mountain via Green Point.

"Conditions suitable for this phenomenon — well-known to Escrom — are estimated to exist for about 15 percent of the year."

In its introduction, this document states that despite more than 25 years of commercial nuclear power generation in America, "no member of the public has died from radiation — not even at Three Mile Island."

Dr Coogan quoted Dr Gordon Macleod, then Pennsylvania's secretary for health, as saying that the neonatal mortality rate within a 16 kilometre radius of Three Mile Island had more than doubled shortly after the incident there.

And to "highlight the danger I see here" Dr Coogan quoted from the Three Mile Island commission report to the US President:

"We are disturbed both by the highly uneven quality of emergency plans and by the problem

created by multiple jurisdictions in the case of a radiation emergency.

"Most emergency plans rely on prompt action at the local level to initiate a needed evacuation or to take other protective action.

"We found an almost total lack of detailed plans in the local communities around Three Mile Island.

"It is one of the many ironies of this event that the most relevant planning by local authorities took place during the accident.

"In an accident in which prompt defensive steps are necessary within a matter of hours, insufficient advance planning could prove extremely dangerous."

Dr Coogan, in his report, cites international authorities on the question of the inadequacy of drawing up emergency plans only for a 16 kilometre radius.

For instance, he quotes a senior energy scientist, Jan Beyea, who wrote in 1980 that in unfavourable weather conditions, people even further than 32 kilometres from a nuclear plant could be subjected to doses of radiation powerful enough to kill them within 60 days.

And he mentions a report published by the United States Nuclear Regulatory Commission, which reads: "The choice of the size of the emergency planning zones represents a judgment on the extent of detailed planning which must be

performed to assure an adequate response base.

"In a particular emergency, protective actions might well be restricted to a small part of the planning zones.

"On the other hand, for the worst possible accidents, protective actions would need to be taken outside the planning zones."

Dr Coogan expresses his "utter astonishment" at the October public briefing when the spokesman for the Cape Divisional Council announced his emergency plan to "transfer up to 20 000 evacuees (some already irradiated?) in tramway buses to the Cape Show Grounds in the City Council area. It was the first I had heard of it."

Dr Coogan says that while the courses of action outlined in the Escrom plan, sheltering, the taking of iodine tablets and evacuation, are probably the only ones open in such an emergency, a brief look at them illustrated the "gravity of the problem which we are facing."

Sheltering — the amount of protection afforded to persons in the average house from radio active elements released in both gaseous and particulate forms in the atmosphere outside — was described by Escrom as "significant".

"The taking of potassium iodine tablets as a preventive measure to protect the thyroid may be efficacious, provided that the medication is

taken in time — but it raises the point that there are many other radio nuclides which will be present, for which no protection exists.

"The alternative to evacuation poses many hazards of its own, particularly if radio active release has already occurred."

While Escrom's plan appears to be grossly inadequate, it still paints a frightening picture reminiscent of war-time. The fact that the dangers posed by Koeberg are finally getting through to the public is evidenced by the number of letters to the Press recently expressing serious concern.

Escrom states in its plan that in "extreme cases", temporary evacuation could be recommended for people living up to 16 kilometres downwind of Koeberg. This could already involve tens of thousands of people — and, ironically, the authorities plan massive increases of the population of Atlantis, which lies in this zone. Dr Coogan himself lives in the key 5-kilometre zone.

Escrom's plan states: "If evacuation is recommended for your area, you should:

"Close and lock your home. Do this as you would for any trip and turn off all appliances. Access to the area will be controlled so you need not worry about the security of your property.

"Listen to the radio and follow instructions. Accommodation for you

and your family outside the area will be arranged. Arrangements will be made to take schoolchildren and hospital patients to safe areas.

"Take only essential items with you, such as toilet articles and change of clothes.

"When instructed to do so, leave the area by the route indicated. Sharing transport with neighbours will help congestion and ensure a safe and timely evacuation. If you do not have a car and cannot share with a neighbour, transport will be provided for you."

The plan says people within five kilometres of Koeberg will be alerted to a disaster by sirens, and those farther afield will be notified by "police or emergency workers using loudhailers."

Meanwhile, a major new study done for America's Nuclear Regulatory Commission, has shown that the worst death toll from a nuclear disaster in the US could exceed 100 000.

The study — which utilised a sophisticated computer model — has revealed that the NRC up to now has grossly underestimated the toll of human life and property which nuclear disasters could cause.

The new study should effect Escrom's emergency planning, which is believed to be largely based on the work of the NRC.

In a statement, Dr Arnold Abramovitz, acting chairman of Koeberg Alert — a body of scientists, professional men and others — says that on the basis of this study, it would be reasonable conservative to say that nu-

clear plants should be sited 80 kilometres or more from concentrations of population.

"The report offers no justification whatever for the siting of a nuclear power station closer than 40 kilometres from the population centres — even in non-coastal areas."

Dr Abramovitz, of UCT's Department of Psychology, said it was now likely that the NRC would come up with new guidelines for emergency plans which would be particularly strict for coastal power stations.

"Coastal stations present special difficulties — one being the limited number of access roads, making evacuation that much more complicated.

"And another is that wind patterns on the coast are nearly always more difficult to predict and more unfavourable in certain instances."

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"And another is that wind patterns on the coast are nearly always more difficult to predict and more unfavourable in certain instances."

Political row over hire of UK experts

Star 29/11/82 55

By Sheryl Raine
Pretoria Bureau

The Atomic Energy Corporation has dismissed claims that nuclear scientists recruited in Britain to work in South Africa could inadvertently promote the development of nuclear weapons in this country.

In a front page article in the London daily newspaper The Guardian at the weekend South Africa was held responsible for a brain drain of British nuclear scientists and technicians.

Senior members of the Labour Party were reportedly concerned not only about the brain drain in the nuclear and other high-technology industries but also about the possibility of scientists inadvertently breaking the British Official Secrets Act and assisting South

Africa in the development of nuclear weapons.

The Guardian reported that Escom ran a recruitment office in London.

Most of the people recruited, the newspaper said, were involved in work covered by the Official Secrets Act.

Others had worked for the Central Electricity Generating Board, which oversaw the operation and maintenance of all power stations in Britain.

The executive chairman of the South African Atomic Energy Corporation, Dr J W L de Villiers, said today:

"Any nuclear scientist who has been recruited overseas is employed at the licensing board of the corporation, which is exclusively concerned with the safety assessment of licensing of nuclear

installations such as the Koeberg nuclear power station."

The Star's London Bureau reports that Labour MP and Anti-Apartheid Movement chairman Mr Bob Hughes is to ask Energy Secretary Mr Nigel Lawson how many people have gone to work for Escom.

He will also ask about the nature of Mr Tony Gopsill's work when he was seconded to South Africa in February 1981 as assistant to the general manager of Escom.

Mr Gopsill, one of the scientists recruited, is a former deputy manager of the Hinckley reactor in Somerset.

His hitherto unpublicised resignation took effect in September, four months before his two-year contract ended.

When news of his secondment became known the CEGB said he was helping to set up safety procedures for two Koeberg pressurised water reactors near Cape Town.

The CEGB then retracted this statement, saying Mr Gopsill was engaged on developing management systems.

Last Friday the CEGB and British Electricity International, the industry's consultancy which arranged the secondment, insisted that Mr Gopsill's work was non-nuclear.

But CEGB officials now concede that South Africa has almost certainly engaged him for his nuclear expertise.

UK alarm at nuclear 'brain drain' to SA

55
2/4/82
CAPL Trinks 29/11/82

LONDON. — South Africa is successfully recruiting British nuclear scientists and technicians despite Britain's policy of refusing to co-operate with the development of the nuclear-power industry in South Africa, the Guardian newspaper reported at the weekend.

In a front-page article, the liberal daily said the "flourishing" recruitment campaign had attracted a

number of highly trained nuclear specialists.

The Guardian said most of the recruits were from the Atomic Energy Authority, whose work is covered by the Official Secrets Act which prevents disclosure of national security information, and from the Central Electricity Board, which oversees the operation and maintenance of all power stations in Britain.

Senior members of the opposition Labour Party "are concerned, not only about the brain drain in the nuclear and other high-technology industries, but also about the possibility of scientists inadvertently breaking the Official Secrets Act and assisting South Africa in the development of nuclear weapons", the newspaper said.

The Guardian said the South African Electricity Supply Commission (Escom) runs a London recruitment office.

Top recruit

It identified Mr Tony Gopsill, former deputy director of Britain's Hinkley Point reactor in Somerset, as one of Escom's top recruits. Mr Gopsill went to South Africa in February 1981 on loan to Escom but decided to stay and resigned his post in Britain last September.

Meanwhile, Mr Len Murray, general secretary of the 11-million-member Trades Union Congress, called on Britain and other Western countries to drop their opposition to mandatory United Nations economic sanctions against South Africa.

Mr Murray told delegates at an Anti-Apartheid Movement conference here that the trade-union movement would also pressure Britain to reduce its heavy dependence on economic links with South Africa.

'Unjustified'

"Those links are not only morally unjustified, their maintenance lacks any commercially sound basis," he said. "Their very existence puts British trade and interests at risk in other parts of the world, notably in black Africa."

● The chairman of the Atomic Energy Board, Dr J de Villers, said yesterday he had no comment to make on the Guardian's report. — Sapa-AP

R50-m to cut lead in petrol, says expert

ARGUS
29/11/82
(55) (58) (58)

Science Reporter

MAJOR oil companies say that if it can be shown that lead in petrol contributes significantly to the blood-lead levels of South Africans, they will take steps to reduce the lead content of their products.

But the Government and consumers would be expected to carry some of the cost of the change-over — about R50-million.

Mr A M Evans, sales technical manager for Shell South Africa, said that while the legal limit of lead in petrol was 0,836 grams a litre, oil companies had an informal agreement with the Government and the air pollution research group of the Council for Scientific and Industrial Research that they would keep the lead content down to an average maximum of 0,5 grams a litre.

"If it was conclusively shown there was a relationship between the lead content of petrol and lead in blood that was in excess of a tolerable level, then we would have to consider reducing the amount of lead used," said Mr Evans.

"VERY EXPENSIVE"

"But this will be very expensive. Adding lead to fuel increases its octane count without further refining.

"If we were to reduce the lead level in our petrol to, for example, 0,15 grams a litre, additional refining facilities would probably cost somewhere between R10-million and R20-million for each refinery.

"Either we will be allowed to put our prices up to recover our costs or the Government will have to help us to put in higher octane-producing facilities for low-lead petrol."

A third alternative was a cost-sharing scheme where the expense of producing low-lead petrol was covered partly by increased prices, partly by direct Government aid to the oil companies and partly by the companies themselves.

"CONCERNED AS ANYONE"

"We are as concerned as anyone about the possibility of doing long-term harm to people, especially children. After all, we in the industry have children ourselves.

"But the problem is that the link between petrol-lead and blood-lead levels has yet to be conclusively shown and no one can agree what constitutes a dangerous level of blood-lead," said Mr Evans.

All the oil company representatives doubted the suggestion that petrol lead was largely responsible for high blood-lead levels made by Miss Yasmin von Schirnding of the school of environmental studies at the University of Cape Town.

Miss von Schirnding recently undertook a study of blood-lead levels of 1 200 children in areas including Hout Bay, central Cape Town, Retreat, Maitland and

Soweto



MISS CYNTHIA MAQUTU: Correspondence and inquiries.

Electrical firm starts advice bureau

55

A NEW advice bureau which will help consumers, particularly black housewives, acquire a knowledge and awareness of electricity and its uses and benefits, has been launched by an electrical appliances company in Johannesburg.

Berda Appliances decided to create the advice bureau because it believes that consumer education will lead to purchases based on value for money and the ability to understand the pros and cons of electricity and a good quality electrical appliance. It will also fulfil a need for the ever increasing number of black consumers requiring information on the many aspects of electricity.

Miss Cynthia Maqutu, public relations officer of the advice bureau, will deal with any inquiries on the subject. She said it was formed because "electricity means many things to many people, but the bureau intends to find out what it means to the black housewife who is about to enter the world of modern technology".

The bureau's address is Van Selm Marketing, 382 Jan Smuts Avenue, Craighall, Johannesburg, and their telephone number is 789-1334/5/6.

How

42% found their jobs from Lab. Bur.
All covered by Gt. Truck

Nuclear arms not our brief — Escom

By CHRIS OLCKERS

TOP foreign nuclear experts will still be approached with offers of jobs in South Africa, in spite of claims by the British Labour Party that the scientists are helping the country to develop nuclear weapons.

A senior Escom official yesterday categorically denied these claims.

"We are most definitely not involved in the development of nuclear weapons.

"Our prime concern is the expansion of our power resources.

"Nuclear armaments is most positively not the brief of Escom," he said.

The row over foreign scientists joining Escom broke

out after the decision by a top British nuclear power station expert to join Escom on a full-time basis.

Mr Tony Gopsill, former deputy director of the Hinckley Point reactor at Somerset, joined Escom in 1981 on a loan basis, but later decided to stay on with the organisation.

The liberal London daily, The Guardian, claimed in a front-page report at the weekend that the men could be contravening the British Officials Secret Act and said their coming to South Africa was a serious brain drain.

The newspaper also claimed that the scientists could be revealing British national security information.

But the Escom spokesman said the organisation would continue to employ foreign experts who would be able to assist with the expansion of its energy programme.

"These people don't only help us with the development of our own energy programme, but are also heavily involved in our intensive training operation for South Africans.

"We will continue to recruit foreigners with the expertise that will be of invaluable assistance to this country.

"They have not and will never be involved in the development of so-called nuclear weapons," the spokesman said.

Iodine attack horse WILL run

By Robin Parker
Staff Reporter

WHAT A Beauty, odds on favourite for the Antigone Stakes at Milnerton today, will come under starters orders.

The three year old chestnut filly, injured by iodine thrown in her face at her owner's Muizenberg stables on Monday night, has sufficiently recovered to resume her hot favourite position in the six-strong field for the feature race worth R5 000, her trainer Chris Snaith said today.

"If we had any doubt as to her ability we would have withdrawn her," he added.

MAN ARRESTED

Police have detained a stable hand in connection with the incident in which two other horses also had iodine thrown in their faces.

Injuries to first race horse Thellie are so bad she is "temporarily blinded" and has been withdrawn.

He added that security around What A Beauty was to be stepped up and that "no-one would be allowed near her from the time she enters the float until she is saddled up."

When betting reopened for the Antigone Stakes today, What A Beauty was once again reaffirmed as favourite, but with her odds eased from 2 to 1 on to 8 to 10 on.

Petrol price to drop in March

Argus Correspondent

JOHANNESBURG. — The petrol price will go down by one cent a litre from March 1 if nothing unforeseen occurs, the Prime Minister, Mr P W Botha, said today.

He said this at a special Press conference at the Union Buildings after the last Cabinet meeting of the year.

The Government has also asked Escom to reconsider the higher tariffs it announced recently for electricity. Escom is expected to respond soon, Mr Botha said.

Overview

Mr Botha was giving an overview of the recent meeting of his Economic Advisory Council.

The Government shared the council's concern with the inflation rate, he said.

"A strong case can be made out for a substantial rise in the price of petrol from the beginning of January."

Market

But this would probably be avoided and there was a strong possibility that, in sympathy with the underlying tendencies in the market, the price of petrol could be reduced by one cent a litre from the beginning of March, 1983.

The Prime Minister said he hoped this information would be taken into account by the pri-

81 arrested in pass raids

Staff Reporter

EIGHTY-ONE people were arrested in pass raids in the southern suburbs today.

There were 47 men and 34 women, according to a spokesman for the Administration Board of the Western Cape.

Inspectors arrested 135 people in an early morning raid in Langa yesterday.

Those arrested today will appear in the Langa Commissioner's Court to face charges of being in a prescribed area without permission or failing to produce identity documents on demand.

Jeantot nearly capsizes

By John Fensham
Yachting Reporter

BOC single-handed race leader Philippe Jeantot, sailing Credit Agricole, was knocked down and almost capsized in heavy seas on Monday night as

He was helped by the French Argos satellite-position-fixing system, the Royal Cape Yacht Club, Maritime headquarters at Silvermine and a Natal amateur radio operator.

British yacht chases leader

Staff Reporter

THE 17-metre British ketch Gipsy Moth V was making a dramatic bid today to catch and overtake the French sloop Credit Agricole and recapture the lead it lost last week in the second leg of the BOC single-

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Argus Correspondent

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31 arrested in pass raids

ARGUS 1/12/82

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Staff Reporter

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British yacht chases leader

Staff Reporter

He was helped by the French Argos satellite-position-fixing system, the Royal Cape Yacht Club, Maritime headquarters at Silvermine and a Natal amateur radio operator.

A spokesman for the BOC race committee said Stokes would not be penalised for having two men aboard his yacht, but "will probably be given a hero's accolade".

It was also reported that Jacques de Roux, whose yacht Skoern III has no self-steering gear after being damaged by a wave, will not withdraw from the race.

De Roux has decided to call at Amsterdam Island, home of a 12-man French weather research team, where he hopes to repair his yacht before continuing to Sydney.

Bertie Reed, sailing Altech Voortrekker, reported that his arms, painful and inflamed after he spilt diesel oil on them at the weekend, were much improved.

THE 17-metre British ketch Gipsy Moth V was making a dramatic bid today to catch and overtake the French sloop Credit Agricole and recapture the lead it lost last week in the second leg of the BOC single-handed round-the-world race.

Latest positional reports indicate that Gipsy Moth V, which is being sailed by Desmond Hampton, has narrowed the gap between itself and the race leader during the past 36 hours and was only about 75 miles behind Philippe Jeantot today — and only about 40 miles ahead of Springbok Bertie Reed in the 15-metre sloop Altech Voortrekker.

According to race headquarters, the leaders in the 7 000-mile leg from Cape Town to Sydney were just over 3 000 miles from Table Bay today.

The other nine yachts left in the race are trailing the leaders by between 475 and 1 500 miles.

He said this at a special Press conference at the Union Buildings after the last Cabinet meeting of the year.

The Government has also asked Eskom to reconsider the higher tariffs it announced recently for electricity. Eskom is expected to respond soon, Mr Botha said.

Overview

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The Government shared the council's concern with the inflation rate, he said.

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Market

But this would probably be avoided and there was a strong possibility that, in sympathy with the underlying tendencies in the market, the price of petrol could be reduced by one cent a litre from the beginning of March, 1983.

The Prime Minister said he hoped this information would be taken into account by the private sector in its future wage and price decisions.

Immediately afterwards, the Minister of Mineral and Energy Affairs, Mr Pietie du Plessis, announced the Government had decided not to amend the statutory speed restrictions.

Factors

Asked why the price of petrol was now likely to go down when he had said recently it would probably rise in January, Mr du Plessis said there were various factors which had been taken into account.

These included the restructuring of the oil supply to South Africa, a restructuring of the State's financing obligations towards Sasol and a change in the accumulated petrol reserves.



THE latest happy event to occur at Tygerberg Zoo was the hatching of these two baby storks — born to a proud mum who has been watching over the eggs in her nest at the top of an old tree stump for a some weeks. The Argus visited the nest in October, soon after the eggs were laid, and returned this week to complete the happy story. **Father Stork** was reared at the zoo, but released more than a year ago. He returned in September, bringing his mate along, and set up home on the trunk.

Bottoms for Hear Club in c

Staff Reporter

PROBABLY the most exclusive club in the world will meet in Cape Town tonight — a group of people who each have two hearts, one of which belonged originally to someone else, and the medical team who made it possible for these people to go on living.

At the meeting — in fact, a jolly cocktail party — Professor Chris Barnard, the city surgeon who has become a legend, will be the host.

But the Very Special Guest was not herself a heart-transplant patient.

Mrs Ann Washkansky stood anxiously on the sidelines exactly 15 years ago tomorrow while her

husband Professor Barnard cardiac surgery.

Mr Louie, 55, was the first in the first transplant operation on December 2,

He received a 25-year-old clerk, Miss Vall, who was injured in a

Sadly, Mr survived for days, but Mr Barnard and Mrs Marius — persevered the piggy bank transplant technique has vastly improved patients' survival.

IN N.

A spokesman for Professor Ba

City told of Koeberg's nuclear safety needs

AKGUS 2/12/87

Science Reporter

ties in Cape Town yesterday.

THE licensing branch of the Atomic Energy Corporation (AEC) and the Independent Council for Nuclear Safety had to agree on all stages of the licensing of a nuclear power station such as Koeberg, Mr John Tattersall, assistant general manager of AEC, told a meeting of local authori-

The main principles for establishing safety criteria for nuclear power plants were that the risk factor had to be small in relation to the total risks, he said.

The nuclear risk factor had to compare favourably with other industrial risks and allowance had to be made for higher safety standards which may be adopted during the lifetime of the plant.

Mr Ron Harris, construction site manager for Koeberg, said the AEC licence for fuel-loading would initiate the final with-fuel programme leading to full power by May-June 1983.

Mr Richard Hagger, reactor physicist at Koeberg, said the plant was subject to inspection by the International Atomic Energy Agency in Vienna. This agency made spot checks of fuel movements.

An emergency planning consultant from the United States, Mr Milton Jury, said civil defence authorities needed contingency plans.

A second meeting of officials from Cape Town City Council, the Divisional Council, surrounding municipalities and representatives from Escom and the AEC was held in the afternoon to discuss matters relating to emergency planning for Koeberg.

Detailed discussions of communications chains and emergency planning activities took place. These details are expected to be completed in the next few weeks.

Cape Town's Medical Officer of Health, Dr Reg Googan, said today he could not comment on either meeting as he and the others present at the meetings had been informed they were being held under the secrecy clauses of the Nuclear Energy Act.

The penalties for releasing information without consent from the AEC were R20 000 or 20 years' jail — or both.

Star 2/12/82

Escom to rethink increases

By David Breier, Chief Reporter

Escom is reconsidering its decision to increase power tariffs by an average of 16,3 percent next month.

A spokesman for Escom said that a decision would be made next week.

The Prime Minister, Mr P. W. Botha, announced yesterday that Escom had been asked to reconsider the proposed tariff increase.

He also announced that the petrol price would be reduced by 1c a litre from March next year — if nothing unforeseen occurred.

But the Government has decided not to increase the speed limit to 120 km/h in time for the school holidays.

Commenting on the Government's anti-inflation stand, the Opposition spokesman on finance, Mr Harry Schwarz, said the Government had neglected the fight against inflation for several years.

The Government has belatedly realised the serious threat inflation has for the economy," he said.

He said he suspected from the announcement that the Minister of Mineral and Energy Affairs, Mr Pietie du Plessis, had managed to negotiate a more favourable fuel import arrangement to take effect from March next year.

Concerning the decision by Escom to review its tariff increase Mr Schwarz said it was inflationary for Escom to finance capital projects by increasing tariffs, as it had done for some years.

Escom should make use of capital available on the local money market at interest rates below the inflation rate, he said.

Escom lowers tariff increase

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JOHANNESBURG: — Escom is to lower its 1983 tariff increase from an average of 16,3 per cent to 14,5 per cent, the commission announced today.

The move is the result of a request by the Government to assist in reducing the inflation rate.

The new tariff will apply from January 1983.

CAMPAIGN

Making the announcement, Escom's chairman, Mr Jan H Smith, said: "The move will be accompanied by an even more intensive campaign by Escom to cut costs and increase productivity."

"We are hopeful that these measures, together with a lower inflation rate, will enable us to meet South Africa's demand for electricity at the lowest possible cost."

"We hope that Escom's efforts towards reducing the rate of inflation will help other sectors of the economy to contain rising costs. Escom trusts that this reduction will be passed on to all consumers in full."

CONSUMERS

"We must do our utmost not to overburden consumers but, on the other hand, Escom has to safeguard South Africa's electricity supply, not only in the short term but in the long term as well. This has to be done even in terms of financial stringency."

Mr Smith said there was no easy solution to the problem of coping

with essential expansion during a serious recession. An organisation such as Escom found itself in an unenviable position since the generation and supply of electricity was not only a long-term undertaking, but a highly capital-intensive one.

Escom was also particularly exposed to inflation, high interest rates, unfavourable exchange rates and other phenomena usually associated with a recession.

RECESSION

"We realise that one of the major causes of the present recession is South Africa's persistently high inflation rate, particularly now that the inflation rate of many of our trading partners has been materially reduced."

"If a lower inflation rate in South Africa can be achieved, the cost of electricity can be contained as well."

"The Commission is anxious to contain tariff increases as much as possible in the interest of its consumers and it is hoped that an upswing in the economy of the country next year would result in an increase in Escom's income so as to avoid further increases in the course of the year," he said.

Mrs Bhutto has

Koeberg at full power in 1983

Staff Reporter

Cape Times 3/12/87

THE KOEBERG nuclear power station will go on to full power by May or June.

In a press statement following liaison meetings yesterday between Escom and local authorities and other concerned bodies, the commission said the pre-fuel loading programme was now com-

plete. Those present at the meetings were warned that the meetings were being held in terms of the secrecy clauses of the Nuclear Energy Act, which makes provision for fines of R20 000, a 20-year sentence, or both, for unauthorized release of information.

The Atomic Energy Cor-

poration licence for fuel-loading would initiate the final "with-fuel" commissioning "leading up to full power by May-June 1983".

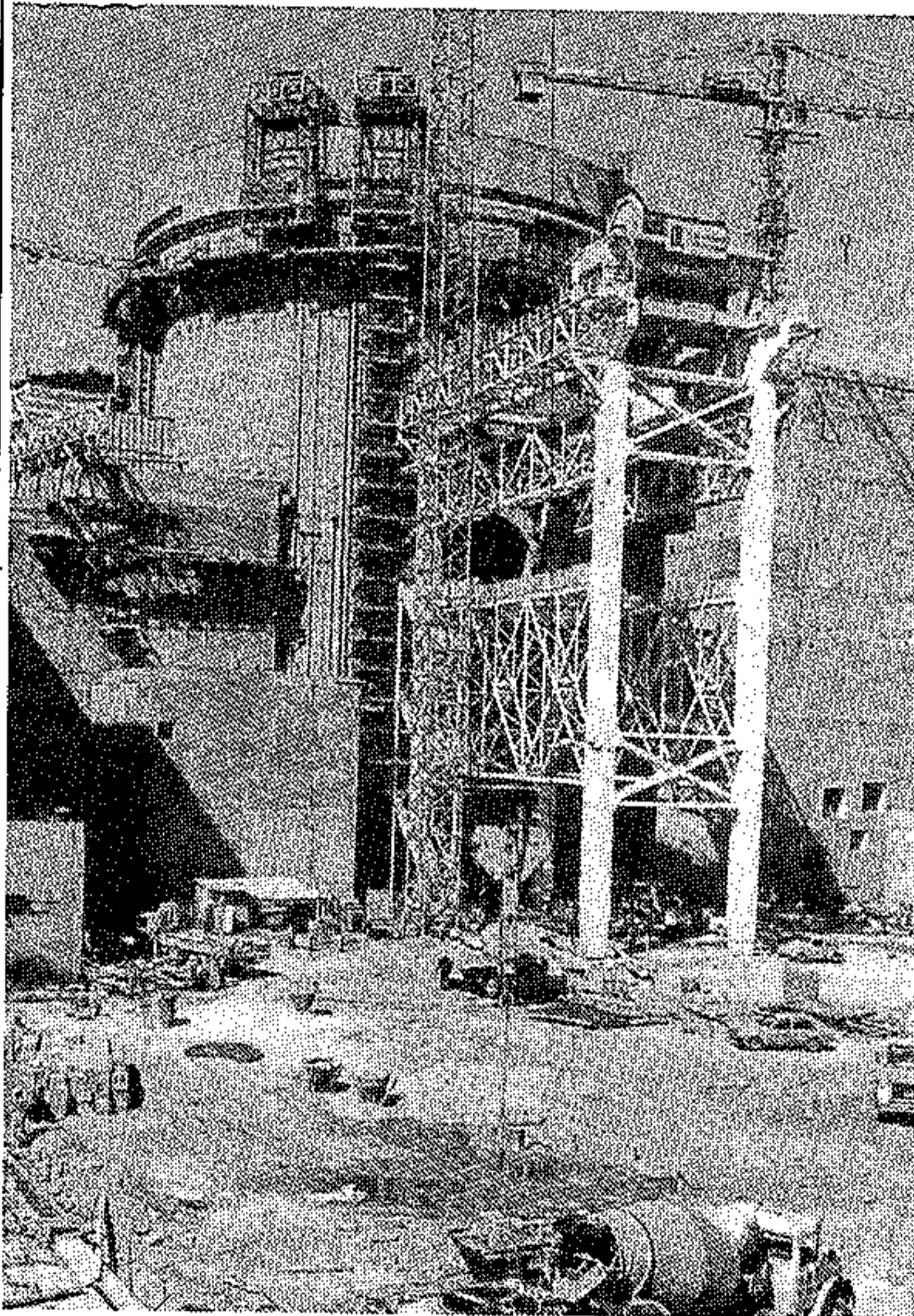
Koeberg's reactor physicist, Mr Richard Hagger, said the plant was subject to inspection by the International Atomic Energy Agency in Vienna, which also made spot checks on fuel movements.

Turning to emergency planning and casualty aspects, the statement said Escom's senior medical officer in the Western Cape, Dr Barney de Villiers, had discussed the opening at the end of November of the radiation casualty facility at Tygerberg hospital.

Contingency plans

An emergency planning consultant from the United States, Mr Milton Jury, said civil defence authorities required contingency plans for various potential threats and although the hazards of a nuclear power plant were small when compared to disasters such as aircraft accidents and epidemics, emergency planning standards had been imposed world-wide on all power utilities using nuclear reactors.

It was now accepted internationally that firm emergency planning should extend to 16 km from a nuclear power station, with contingency planning continuing beyond this distance.



The Koeberg nuclear power station.

Shaw 3/2/82

Escom to lower

(5)

its tariff increase

In response to a request by the Government to help reduce the inflation rate Escom would lower its 1983 tariff increase from an average 16,3 percent to 14,5 percent, the commission announced today.

The new tariff comes into force next month. Escom's chairman, Mr Jan H Smith said: "The move will be accompanied by an even more intensive campaign by Escom to cut costs and increase productivity.

"We are hopeful that these measures, with a lower inflation rate, will enable us to meet South Africa's demand for electricity at the lowest possible cost.

"We hope that Escom's efforts towards reducing the rate of inflation will help other sectors of the economy to contain rising costs.

"Escom trusts that this reduction will be passed on to all consumers in full."—Sapa.

tariff up
9 pc in
Border

EAST LONDON — Electricity tariffs in the Border area will go up by nine per cent next year — 1,1 per cent less than originally announced by Escom — as a result of the commission's decision to soften its tariff increases.

The new tariffs were announced yesterday in response to a government request to help curb inflation.

The Border tariff was originally supposed to go up 10,1 per cent next year, with the average tariff going up 16,3 per cent.

Following yesterday's announcement however, the average increase will be 14,5 per cent. The Border increase is still the lowest in the country.

Tariffs in the Orange River area will go up 14,3 per cent instead of 15,4 per cent.

"We hope Escom's efforts towards reducing the rate of inflation will help other sectors of the economy contain rising costs", a spokesman said. — DDC.

Reaction P7

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E. Post
4/12/82

Business leaders welcome Escom reaction

Post Reporter

"THE response of Escom to the Prime Minister's request to reconsider the increases in electricity tariffs is an encouraging sign that good business management practice is being recognised as necessary in the semi-public and private sectors", Mr Rod Ironside, president of the Federated Chamber of Industries, said today.

"Containment of administrative prices is equally as important in the public sectors as in the private sector and the Prime Minister is to be commended on his pragmatic approach to bringing down the excessively high inflation rate."

"It is to be hoped that this is the beginning of a truly joint approach to reducing inflation and spurring the economy towards recovery."

The announcement by Escom that it is to reduce the level of its proposed tariff increases by an average of 1.8% was welcomed by Assocom.

It was to be hoped this measure heralded a more positive approach to tackling the problem of administered prices in general, it said.

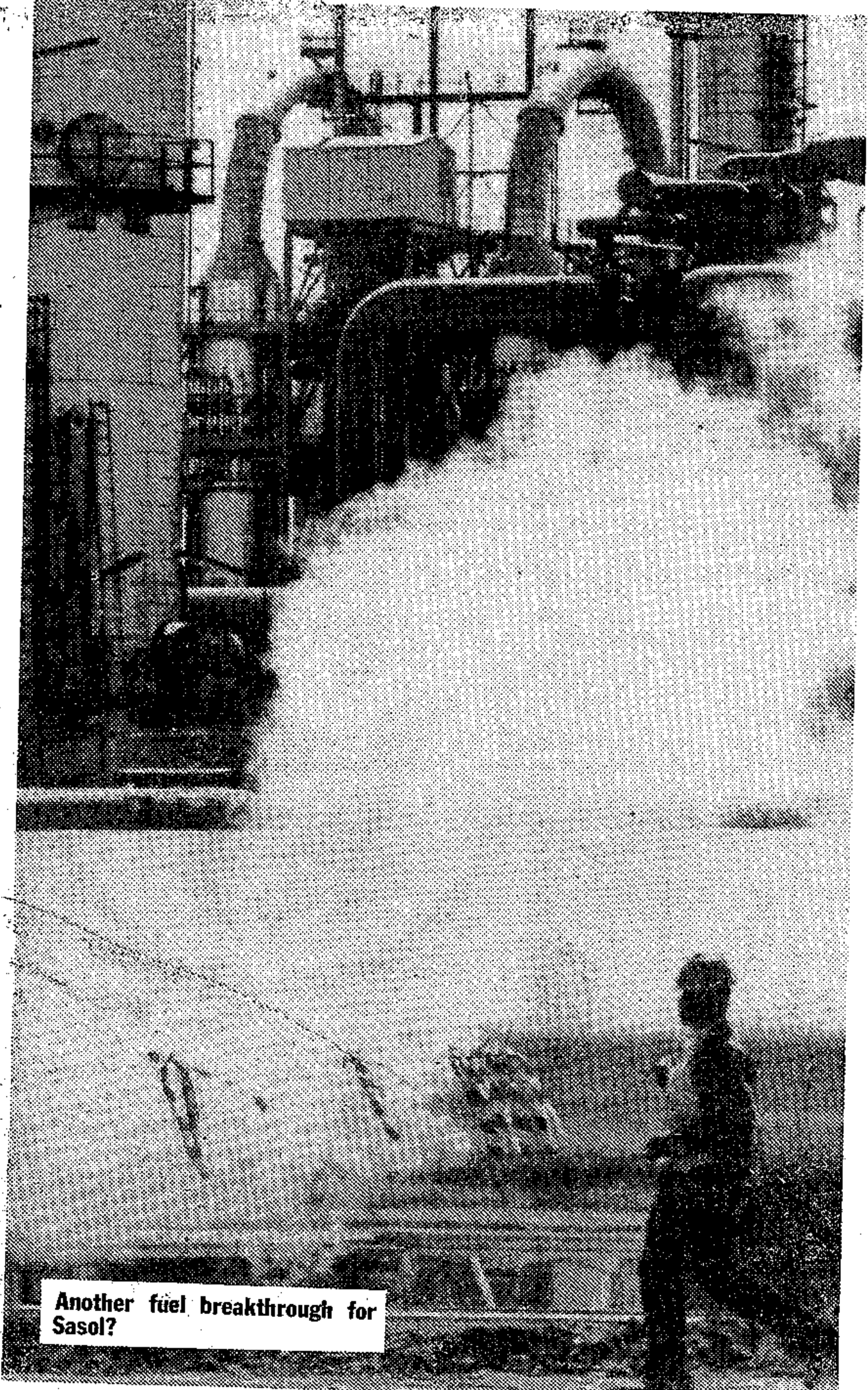
The tariff increase in the Port Elizabeth-Uitenhage-Despatch area from January will now be 14.3% and in the Border area the charges will go up 9%.

CABINET STUDIES VITAL OIL PLAN

53

Industrial weeks

7/12/82



By Lynn Carlisle

A NAIL-BITING three-month wait confronts AECI, Sasol and Gencor with the Energy Policy Committee in the throes of submitting proposals for a new dieseline-from-crude oil substitute to Cabinet.

With question marks hanging over the various processes - related either to technological or cost viability factors - it appears that AECI's "breakthrough" methanol-from-coal "additive" developed after two years of research has found some favour with Committee members.

But AECI's fuel, in spite of being successfully tested on engines in trials and at plant level, is still considered "unproven" and will have to undergo additional tests under the scrutiny of Go-

vernment bureaus.

Two years ago AECI gave notice of its intention to form a consortium with Shell and Amcoal to establish a R700-million plant (at yesterday's prices) if the fuel under research met the mark and gained Government approval.



Dr Colin Schlesinger. Dr Colin Schlesinger.

"We are now biting our nails on the Government backing issue," admitted AECI's

It is understood that Sasol's products are considered to be possible answers to the problem of finding a substitute made from crude.

But its "Argi" process using a fixed bed reactor is regarded as "somewhat costly" - in spite of its low technological risk while the cheaper direct liquification process is still considered "a bit risky".

Gencor is in the bidding with its fuel manufactured from a retorting process, but by comparison with the others it is small scale.

Asked to ratify that serious consideration was being given to

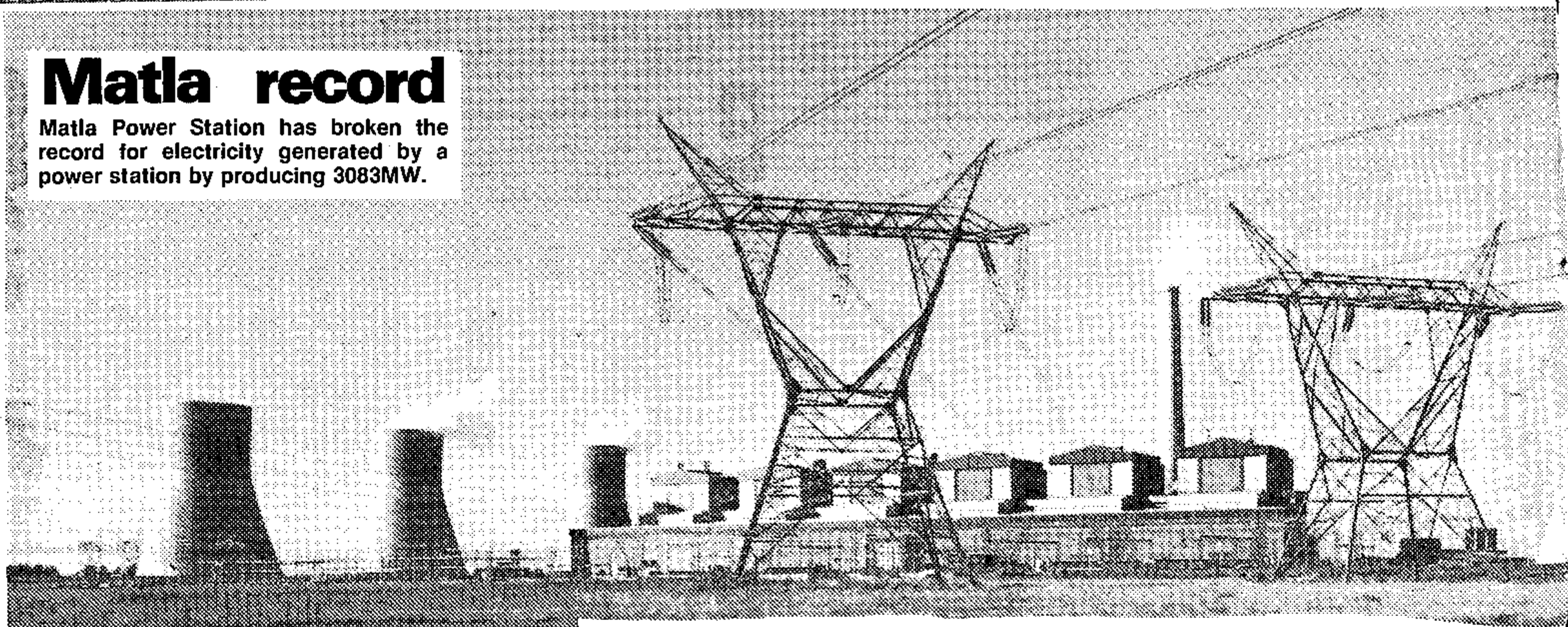
To Page 2

Another fuel breakthrough for Sasol?

cont
↓

Matla record

Matla Power Station has broken the record for electricity generated by a power station by producing 3083MW.



SA heading for diesel shortage

By Priscilla Whyte

SA COULD be heading for a diesel shortage because of an imbalance in fuel production.

Methanol has potential as a diesel substitute but it does not seem to hold much promise as a petrol supply extender.

Dr Robert Scott, director of energy planning at the Department of Mineral and Energy Affairs told Industrial Week: "It would be more judicious to rather extend SA's diesel supplies".

Scott explained that in 1950 the demand for petrol was seven times that of diesel.

In 1980 the demand for petrol and diesel were almost the same.

Scott said: "If diesel supplied from crude oil were to exceed petrol by about 40% a situation of imbalance would certainly exist".

Sasol produces more petrol than diesel and this aggravates potential diesel shortfalls.

Methanol is a poor diesel replacement, because it does not blend with diesel and has a low cetane rating (ability to ignite under pressure).

AECI, Shell and Amcol have been working on

methanol as a diesel fuel replacement by the addition of a small amount of cetane improver to improve ignition properties.

AECI has patented a cetane improved methanol called diesanol for use in conventional diesel engines requiring only minor modification.

Since this fuel has only half the energy content of diesel the volumetric fuel consumption is doubled.

AECI will be conducting extended fuel trials, which Government officials will be carefully monitoring.

Methanol is a non conventional fuel and the Government's general fuel policy opts for minimum expenditure on engine modification.

Methanol is cheaper to produce from natural gas than from coal.

But Scott said that the introduction of a new fuel and a new engine would be difficult.

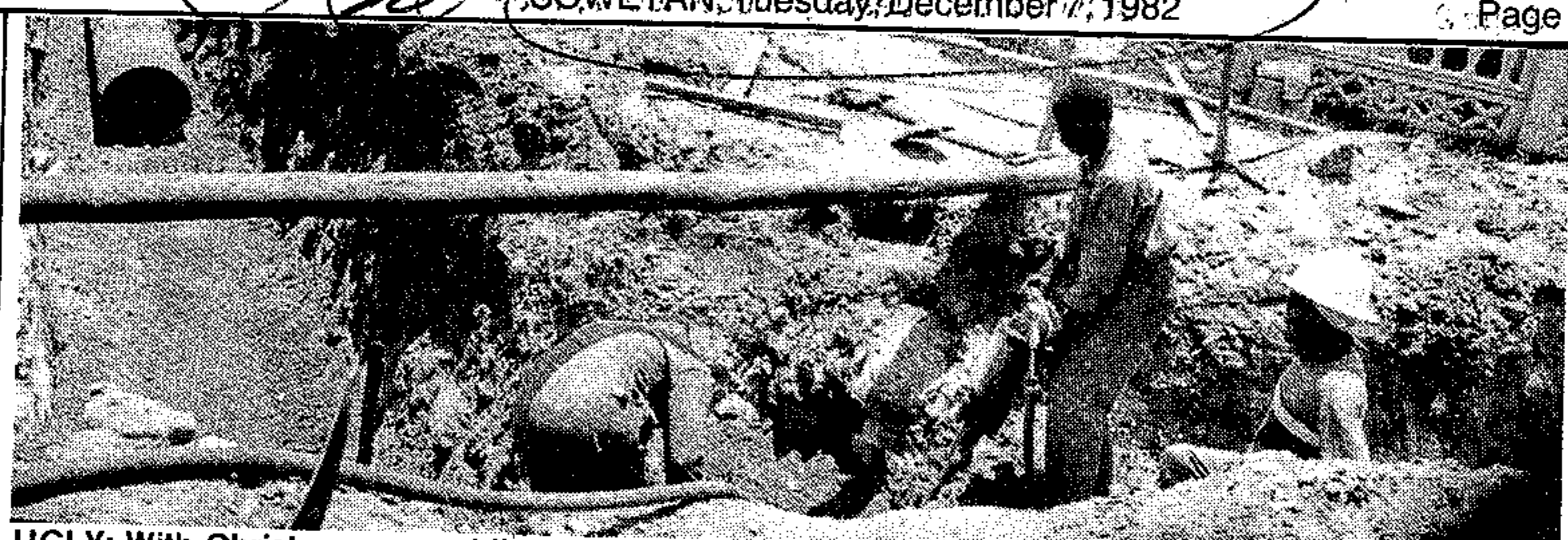
However, for all the detractions, methanol-from-coal is a more efficient route to liquid fuel than the Sasol route.

Industrial Week
7/12/82

35/ 211 Mercury
Escom power

WINDHOEK—Windhoek began receiving electricity from Escom for the first time at the weekend when it was linked with the Escom power grid supplied by the line running from Aggenys in the northern Cape. Until now the town has derived its electrical power from Ruacana on the Cunene River and the local power station in Windhoek. — (Sapa)

55 28



UGLY: With Christmas around the corner there is widespread concern over the safety of people with the trenches everywhere.

Wrab promises to 'look into' power delays

THE R212-million electrification scheme has turned sour for hundreds of Soweto residents who are still waiting to have power connected to their homes — two years after being fitted with wire and cables.

The townships affected by the delay include Zondi and Mofolo North, and the West Rand Administration Board (Wrab) is looking into the matter with the aim of connecting power in the area "as soon as possible".

Residents interviewed by The SOWETAN expressed fears that the delay could result in them waiting for another year — until the big switch-on scheduled to take place in December next year. They also complained that other areas had already been supplied with electricity.

Wrab's acting director of electricity, Mr Steve Burger, said yesterday technical problems had delayed the switch-on. He said some houses in the affected townships had already started receiving power.

"We are at present working on the co-ordination of the supply from sub-stations to the houses and hope this will be over soon," Mr Burger said.

• Over 39 000 Soweto houses were fitted with wire and cables last month, according to the latest report by the Greater Soweto Planning Council.

Another 41 700 will be wired this month, while 44 700 more will go through the same process in January next year.

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Criticisms were:

- (1) The perfect competition assumption of a homogeneous product appeared unrealistic
- (2) Advertising and selling costs were not taken account of.
- (3) A falling cost curve implied continual growth for a company. In reality, though, this did not occur.

7

Staffa was the first economist to take up the problem of the falling cost curve. He decided that this could be explained by a falling individual demand curve. This idea was taken up by Chamberlain and Robinson. However it is the work of Chamberlain that has proved so important and which is necessary for me to explain

No dark holes for Xmas

THE WEST RAND Administration Board (Wrab) has put pressure on construction teams working on the R6,5-million Soweto electrification project to fill up trenches to avoid accidents during the Christmas period, a spokesman said yesterday.

8/12/82
55
The trenches have claimed about five lives and caused injuries to several people and have been called "progressive holes" by Wrab.

The Wrab spokesman said that although many trenches would be filled before December 10, some would not be filled as more cables had to be placed in the holes.

"We run more than one cable to a trench to eliminate more trenching," he explained.

When asked how many houses had been

Sowetan
switched on so far, he said about 3 000 were switched on at the end of October to make the electrification project a month ahead of schedule.

"We cannot be held responsible if some houses are not switched on because they did not pay the consumer deposit. Once it is completed and paid we switch on," he said.

The contractors will close for holidays on December 10 and will restart on January 15.

GENERAL NEWS

Mystery surrounds big Escom contract

By Mervyn Harris

A company has been given another chance by Escom to deliver a contract which has been riddled with unanswered questions since it was awarded.

Nearly 14 months after Chubb Lock and Safe Company obtained the contract to supply equipment to Escom, the project is back on the drawing boards.

This follows the failure of the equipment to pass tests carried out in Pretoria, according to those connected to the testing bodies.

The delivery and completion of the project was scheduled for the end of this year.

THREE INVITED

The failure of the tests is the culmination to a series of events and unexplained setbacks which have shrouded the contract since it was put out to tender by Escom in October 1981.

Three companies were invited to submit tenders for the contract after Escom's adviser on such mat-

A contract awarded to Chubb Lock and Safe Company to supply equipment to Escom is giving rise to growing discussion.

The project is back on the drawing boards only weeks before delivery and completion of the contract was scheduled. This follows a series of events and unexplained setbacks which have shrouded the contract since it was

ters, Mr Ullrich Overbeck, head of engineering consultants Insor, had drawn up specifications for the equipment in line with accepted world standards.

The three companies were: Giant, also producing safes and other devices as a division of Abercom; Bischoff, a similar arm of Murray and Roberts; and Chubb Lock and Safe, a subsidiary of listed Chubb Holdings.

Tender requirements sent to each tenderer included:

- A proven track record.
- Submission of test reports.
- Submission of detailed drawings.

The documents were handed back by Giant, which said it was not able to meet the requirements laid down in the specifications.

Reports circulating in the market say the firm did, however, price the job at about R7.4 million. Confirmation of this could not be obtained from Giant.

TURNED DOWN

About a week before the tenders closed, Bischoff suggested to Chubb that a joint tender be submitted in view of the size and complexity of the job. Chubb turned down the offer.

Bischoff then tendered a price of R7.6 million. Because of the

scale and complexity of the contract, the tender was in partnership with a West German firm, Heerum.

But Chubb got the contract after putting in a price of about R4.1 million.

The awarding of the contract to Chubb seems surprising in view of subsequent events. Chubb seemed unable to meet the criteria laid down in the specifications and sought assistance from Bischoff and its associate companies.

Representatives of the two companies met at the Burgers Park Hotel in Pretoria. Mr Xavier Herscher, managing director of Heerum, flew from West Germany to attend the meeting.

Present at the meeting on behalf of Chubb Lock and Safe were its managing director, Mr Peter Jephson, and works director, Mr David Firth. A translator was also at the meeting.

Bischoff-Heerum said it would cost R1 million for know-how and expertise. The total cost of the test reports submitted for its tender was R400 000.

Chubb said it was not prepared to pay the price and turned it down.

The original drawings submitted by Chubb were designed by its advisers on the contract, Von Gruting and Partners, Pretoria-based structural consultants.

Mr Herscher could not be contacted in West Germany but a local representative of Bischoff-Heerum said Chubb had sought sub-

ing their offer of submitting a joint tender?

● Was it correct for firms so closely associated to act as consultants to both parties — Escom and Chubb — on the same contract?

● Did Escom accept a tender from Chubb which was incomplete in that it did not comply with the criteria?

Tests were finally carried out on the equipment made by Chubb from the designs. They were carried out on November 11 in Pretoria by Commandant M A M "Chuck" Chambers in the presence of a CSIR official.

The CSIR official has confirmed to The Star that he was present at the tests.

FAILED

According to sources connected to the testing bodies, the equipment failed to pass the tests.

Mr Dirk Ackerman, managing director of Chubb Holdings, said the company was proceeding with the contract to deliver the equipment.

Mr Peter Jephson, managing director of Chubb Lock and Safe, said: "It is not our policy to discuss anything with third parties which concern matters between ourselves and clients."

He added: "Heerum approached us after we were awarded the contract, indicating its willingness to offer us assistance."

"The meeting at the Burgers Park Hotel was only to do with small aspects of the work and had nothing to do with concepts."

Mr Herscher could not be contacted in West Germany but a local representative of Bischoff-Heerum said Chubb had sought sub-

NOTE CAREFULLY

1. Enter at the top of each page and in column (1) of the block on this cover the number of the
2. New drawings were then apparently obtained from a foreign-based company, EBD, which is associated with Von Gruting and Partners on certain projects and operates from its offices and telephone number in Pretoria. EBD also happens to be a consultant to Escom.
- 3.
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QUESTIONS

The unfolding of events up to this stage poses three awkward questions:

Any

● Did Chubb seek assistance from Bischoff-Heerum when it got the contract after previously reject-

DENIAL

Mr E du Plessis, head of public relations, Escom, said it was not true that the Chubb tender was not to specifications. "The Escom tender board awarded the tender to Chubb because economically it was considered the most favourable," he said.

He said Escom accented that EBD might have certain business relations with Von Gruting and Partners. "Escom is not, however, aware that EBD is acting for any tenderers or contractors in this matter."

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TRANSLATOR

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GENERAL NEWS

Security experts 'not surprised' at Chubb failure

By Mervyn Harris
Spokesmen in the security industry are "not at all surprised" at the failure of Chubb Lock and Safe Company to meet delivery and completion dates of a contract to supply equipment for Escom.

They also say that tenders should have been reopened by Escom for the contract instead of giving Chubb more chances to fulfil the contract.

CULMINATION

They were reacting to a recent report in The Star saying that the project is back on the drawing boards after the equipment failed to pass tests last month.

Delivery and comple-

tion of the project was scheduled for the end of this year.

The latest setback was the culmination of a series of baffling events and unexplained questions which have shrouded the contract since it was put out to tender by Escom in October last year.

STAGGERED

Chubb was awarded the contract in the face of competition after putting in a price of about R4.1 million.

Bischoff, which also produces safes and similar devices as an arm of Murray and Roberts, tendered a price of R7.6 million. Giant, a similar division of Abercom, handed back the documents, saying it could not meet the requirements laid down in the specifications.

Mr Arun Green, managing director of Bischoff, said: "I was staggered at the discrepancy in the prices of the tenders.

"We are most experienced in this field and gave specifications according to international standards. There is no way it could have been done to the original specifications for so much less.

"Being in the marketplace, we have heard whispers that things have been going wrong with the Chubb contract. This does not surprise me when I look at the price and the specifications."

Mr Green recalled that the closing date for tenders was extended for a few weeks at the request of Chubb. This should have been totally unnecessary.

DETRIMENTAL

"There is no sour grapes. We are far too busy with profitable work and do not now want the contract. To go in now would be suicidal and detrimental to our existing clients.

"We are so busy with the export and local market that we do not need any drama," he said.

Mr Green was not surprised that Chubb was having difficulty in delivering the equipment as "the price dictated that the specifications would have to

be downgraded or made at a loss.

"Nothing surprises me these days," he added.

WITHDREW

Mr Bob Hilling, managing director of Giant, said: "We withdrew from the contract because it was too big, too technical and the time scope too short."

He said that if the fabric of the contract had been materially changed, it should have been reopened.

"In a contract of that size, it is quite normal for a company to go back and offer modifications if it also produces benefits such as a lower price than the original tender."

SUMMONED

Normally, when a successful tenderer fails to comply with any aspect he is reprimanded and given a certain period of time to comply or is required to repay the difference between his tender price and the next best tender.

Tenders are reopened only when none of the tenderers can comply. In this case the remaining tenderer could.

DISCREPANCY

Mr Denis Austen, managing director of Austen Safe Company, said the discrepancy in the tender prices submitted by Chubb and Bischoff did not make sense.

"I heard that Giant had priced the job at about R7.4 million. I don't think that companies like Bischoff and Giant would underestimate a job to such an extent.

"It looks as if Chubb is set to make a big loss."

His company was not involved but Mr Austen said he thought the tenders should have been reopened.

Tender 'too low for job'

53-

...ied from the heading on the Examination Paper,

Paper No. 2
(to be copied from the heading on the Examination Paper)

NOTE CAREFULLY

- 1. Enter at the top of each page and in column (1) of the block on this cover the number of the question you are answering.
2. Blue or black ink must be used for written answers. The use of a ball point pen is acceptable. Red or green ink may be used only for underlining, emphasis or for diagrams, for which pencil may also be used.
3. Names must be printed on each separate sheet (e.g. graph paper) where sheets additional to examination book(s) are used.
4. Do not write in the left hand margin.

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Any dishonesty will render the candidate liable to disqualification
University

EAST LONDON — Re- ports. In the French press that South Africa's second nuclear reactor would be built at Port Alfred by French industrialists "came as news to me", the town's mayor, Mr A. G. Randall, said yesterday.

"I don't know anything about this at all, neither does any councillor or municipal official. It came as news to me," he said.

Reactor news surprises mayor

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11/2/82

"From what I gather, Escom plans constructing more nuclear reactors in the distant future, but there are no plans to site one at Port Alfred.

"Until I know more, however, what can I say?" Mr Randall said.

The fact that Port Alfred had been named in the French press as

the site did not necessarily mean anything, he added.

"It could be as far as 80 km away. Port Alfred is probably the closest town so that's why it was named. We'll have to wait and see what happens."

If a nuclear reactor was sited at Port Alfred,

the majority of farmers in the area would have no objections, the president of the East Cape Agricultural Union, Mr Fred Pettit, said yesterday.

Two years ago the union had passed a resolution advocating the construction of a nuclear power station in the

Eastern Cape.

"Some farmers were not happy about it, but it was generally felt that it would be good for the area, providing more electricity at a cheaper rate," Mr Pettit said.

A local environmentalist, Dr Ken Tinley, warned, however, that the siting of a reactor

would "seriously affect" the Eastern Cape.

East London and Port Alfred would be in the fallout area in the event of an accident, because the rain-bearing south-westerly winds would carry the radioactive cloud up the coast.

"I'm extremely unenthusiastic about nuclear power stations, especially as we have such a vast abundance of coal at our disposal." — DDR.

BANKING

Streamlining the system

The SA banking system will, in the future, be controlled by a sophisticated fine-tuning mechanism that hits the ability to create credit where it starts — at the liquidity base.

This would be, effectively, the result of the implementation of the proposals made by the De Kock Commission. The commission's second interim report on the building societies (see *Leaders*) includes, by way of reference, recommendations for the reserve requirements of the banking system. These recommendations, due to be released only in the final report, were included to make sense of certain proposals for the building societies.

For the banks the commission recommends:

- That the minimum basic liquid asset ratios be reduced gradually from 30%, 20% and 5% of short, medium and long-term liabilities respectively to 20%, 15% and 5%;
- That all supplementary liquid asset requirements be phased out;
- That the minimum basic cash reserve balance with the Reserve Bank be set at 8% of short-term and 4% of long-term liabilities;
- That the Reserve Bank be given the right to call for supplementary cash reserve balances against both short and medium-term liabilities; and
- That the Reserve Bank be authorised to pay interest on reserve balances.

At first glance, the reductions suggest a massive release of cash to the banks. At the moment, R54 of every R100 raised by a bank on short-term deposit is perforce invested in liquid assets. This legal imperative creates a captive demand for the short-term financial paper defined as liquid assets, and consequently lowers the yields on them relative to non-liquid assets. It means that banks lock-up in comparatively low-yielding assets cash that could be lent at more profitable returns.

Liquidity

Chief economist at Standard Bank, Andre Hamersma, estimates that the change in the system would in theory, for Standard commercial bank alone, create a R900m excess of existing liquid assets over those required. The figure for the whole banking system could be about R4 billion.

This does not necessarily imply, however, a sudden surge of liquidity sweeping through the banks, or a leap in their profitability. The accent will be on "gradually." And, says Stan McDonald, finance GM of Barclays Bank, competition among the banks will ensure that their profit margins do not widen substantially. Higher deposit

rates, especially on retail deposits, and lending rates lower than they might otherwise be, would see to that. It could, as well, place commercial banks in a better position to pay interest on cheque deposits, currently expensive in terms of reserve requirements.

In the money market, says Colin Dunn, executive deputy chairman of the Discount House SA, the changes would mean a narrowing of the rate differentials between liquid and non-liquid assets. They could also hold adverse implications for those public sector bodies, the Land Bank being a notable example, that depend on the captive liquid asset system for cheap funding.



But between the lines of the recommendations run deeper implications for monetary control in general. Hamersma makes the point that the minimum liquid asset ratios suggested are close to what banks would, in the absence of controls, set for normal levels of liquidity prudence. At the same time the Reserve Bank has reserved the right to manipulate the levels of the cash reserves that the banks must keep with it. This is a clear, if muted, indication of the long-expected move towards a control system based on cash reserves, rather than on liquid assets. The liquid asset system is generally regarded as both unwieldy and relatively inefficient.

The corollary of this is greater dependence for control on open-market operations and exchange rate policy. Liquidity movements through the current account of the balance of payments could be neutralised by corresponding movements in the exchange rate. An inflow of dollars, say, from a sudden rise in the gold price,

could be met by a rise in the external value of the rand, so that the full impact of the liquidity surge is softened, and vice versa. These measures could be backed-up by open market operations and manipulation of statutory cash reserves.

The net effect, says Hamersma, is a system that controls the ability of the banks to create credit by controlling the amount of liquidity entering the banking system. This is the norm in most other countries, and promises to be more efficient than the system currently in use in SA. The present system is one that allows liquidity to flood into the banks, and then attempts to control it by extremely high liquid asset reserve requirements.

The recommendations, apart from being efficient, are an example of skilled compromise between the dictates of rationality on the one hand, and those of tradition and vested interest on the other. This "art of the possible" is one for which Reserve Bank Governor Gerhard de Kock has, in his two years of office, developed a justifiable reputation.

FM 10/12/82
PETROL PRICE

Looking to the cut

Government expects the combination of a number of favourable factors to result in a small reduction of the petrol price sometime in the first quarter of next year.

They are the appreciation of the external value of the rand to a level at or near parity with the US dollar, a further decline in the country's requirements of imported crude oil (due to slack demand in the recession and increased production of synfuels from Sasol) and favourable terms for crude oil supply contracts.

A decisive factor, too, is the oil companies' acquiescence in what must be an intolerable situation — a standstill in their margins for more than a year which leaves them massively under-recovered in terms of their secret price agreement with government. Local oil company profits derive from two sources, a refinery margin and a marketing margin. This margin is expressed in money terms, not a percentage of the price.

The basis of the local price structure since the early Sixties has been the "import parity" of 93 octane petrol. To arrive at an in-bond landed cost the following price components are taken into account:

- The fob value, which comprises a four-companies' average of producing 11 of petrol, based upon the average costs of Shell,

Escom probe on contract with Chubb

(53)
SRES
12/12/87

By Mervyn Harris

Escom is investigating allegations about the award of a contract to Chubb Lock and Safe Company for the supply of equipment.

An Escom legal representative said the investigation was under way and the findings might be made known next week.

The investigation follows reports in The Star that the Chubb project is back on the drawing boards only weeks before delivery and completion of the contract was scheduled.

The setback is the culmination of series of events and unexplained questions which have shrouded the contract since it was awarded to Chubb in October last year.

Chubb was awarded the contract after putting in a tender of about R4,1 million — nearly half that of the opposition, which priced the job at R7,6 million.

A question raised was why Chubb sought technical know-how

and assistance from the opposition tenderer after previously rejecting an offer to submit a joint tender.

The Escom spokesman said: "The tender submitted by Chubb was by far the best at the time. We awarded the tender to Chubb but it was subject to certain conditions being fulfilled.

"These conditions have been fulfilled but after getting the test results we thought of increasing our requirements.

"It was then Chubb encountered certain difficulties. We are concerned about the allegations and the many stories which are circulating about the contract. The Chubb contract went through all the procedures of the Escom Tender Board."

The investigation will try to clarify whether it was correct for two closely associated firms of consultants to act as advisers to both parties — Escom and Chubb — on the same contract.

Power station blows up R250 000 damage

ARGUS 15/12/82
SS ~~60~~ ~~877~~

Argus Correspondent
JOHANNESBURG. — A blast rocked the Escom sub-station at Ennerdale between Vereeniging and Vanderbijlpark early today.

The explosion happened between 2 am and 3 am and extensively damaged two power trans-

formers at the station which serves the coloured community in the area.

An officer at police headquarters in Pretoria confirmed the two transformers had been blown up but would not at this stage confirm an act of sabotage.

POWER CUTS

He said no one was injured and security policemen and bomb squad experts were looking for clues in the area.

An Escom representative said the blast caused domestic power cuts to the Nancefield and Grasmere residential areas.

He estimated the cost of the damage at about R250 000.

Power to the affected areas might be restored by tonight, he said. No industrial areas were affected by the power cuts.

By Stephen McQuillan

If South Africa strikes "black gold" in a big way, the international oil giants will want to cash in on it — despite politics.

The sanctions busters would scramble to sell expertise, heavy equipment and technology to recover the oil despite apartheid.

That is the view — and the hope — of the Department of Energy and Mineral Affairs in Pretoria.

"I don't think it should be too difficult to get the expertise," said a department spokesman. "America and Britain have heavy investments in South Africa. There is just too much money involved in oil."

South African oil companies are largely multinational anyway, allowing access to international expertise.

In about three months South Africa will know whether it is to become an oil-producing nation.

Major oil finds in SA (55) will bring in the giants,^{Stew 16/12/82}

In October the rig Sedko K struck oil 136 nautical miles south-

west of Mossel Bay. But the strike, of 900 barrels a day, was not productive in itself. The well was plugged and the area will be drilled again in March.

It was the first indication that the 15-year offshore oil search — costing about R300 million — was beginning to pay off.

The Government and Southern Oil Exploration Corporation (Soekor) are reluctant to discuss the implications of a large find.

But one possibility — apart from the obvious long-term boost to

the economy — is a fall in the price of fuel.

"I'm sure the potential for cheaper fuel is there," said the department spokesman. "But it would depend on policy decisions of the government of the day."

"It is fair to say that on economic grounds the unloaded price — without taxes — could be cheaper."

The realisation of Soekor's target — a medium size field that would produce at least 100 000 barrels a day for about 30 years — would also give a boost to the country's refinery network.

"Our refineries could cope with anything we get," said the spokes-

man.

"Refineries are not working to full capacity because of the phasing in of the Sasol plants."

They are operating at about half of their capacity.

If gas is also found several opportunities will open. Methanol could be manufactured for use as energy — as an additive to petrol. The manufacture of ammonia from natural gas would aid the production of fertilisers.

"We are optimistic at this stage," said the spokesman.

"The importance of the discovery in terms of the national economy cannot really be gauged yet."

But oil production was a dynamic affair, which changed from year to year according to market forces, he said.

Consequently, the volume threshold for profitable offshore production — put at 100 000 barrels a day or 28 percent of the country's oil thrust — could change.

"Sasol will give South Africa a degree of independence but with increases in demand, this independence will be eroded," said the spokesman.

"Then we either build new Sasols or look somewhere else. That is why the discovery of the latest reservoir of oil is so

important.

"The Government is putting a lot of money into the oil exploration programme."

Soekor is reasonably optimistic about the latest find — by far the biggest — in an area long thought to be promising.

The corporation says the strike is important because of the vast quantities, and because the oil discovered is good quality.

The oil has been compared with the light oils of the Middle East, which need less refining than thick crude. It would be valuable as an additive to crude supplied to South African refineries.

Soekor has launched an intensive investigation in the area of the oil find.

It includes a seismic survey to gather more data on the oil-bearing sandstone structure in order to pinpoint promising locations for further drilling operations.

market."

There has also been "an enormous demand" for gift vouchers.

Pick 'n Pay merchandise director Peter Dove says late October and November turnover was disappointing. Sales are now "buoyant," and should be 22% up in monetary terms and 7%-8% in inflation-adjusted real terms on last year.

Factor reports good sales of furniture, small appliances, jewellery and clothing. Foodstuffs top the Pick 'n Pay list. Top Dion sellers have been television sets, videos, microwave ovens and dishwashers. Dion's expansion into babyware and hardware has also been a big draw, and sports goods, calculators and electronic games continue to pull in customers.

Other sectors are not so fortunate. Some of the sorriest tales come from the liquor trade, which normally flourishes in the festive season. Rebel Transvaal MD John Connolly says the "don't drink and drive" campaign has reduced sales across the board. Firms are sending wine instead of whisky as gifts, and a real increase in sales is "unlikely." Even Christmas parties are tending to become low-key.

Solly Kramer's marketing director, Andy Murray, says: "Customers are buying less." Retrenchment has hit sales in the industrialised east and west Rand, he says, and retailers are losing on margins as well as turnover as they try to undercut one another.

Liquor sales are holding up well in the black consumer market, says Murray. But this is largely served by the administration



Christmas tree . . . no glitter for some

boards and shebeens. Murray feels that black incomes are growing faster than inflation, and there is a preference for food and drink rather than durables.

According to the JCC, most clothing dealers forecast a decline in real turnover and at most a 12%-15% monetary increase.

Men's clothing will be hardest hit. Foschini MD Hugh Mathew says: "We have experienced a drop in the growth of clothing demand compared to 1980 and 1981." Nonetheless, he remains confident of real growth picking up on last year's Christmas clothing sales, and good jewellery sales.

Caress, and its upmarket subsidiary

Camberg, are also confident of a profitable jewellery market, despite pessimistic predictions from the JCC. Caress MD Mannie Judin attributes growth to newspaper and television advertising and mail shots. Biggest sellers have been gold and diamond pendants retailing at R100, and engagement rings.

Sterns is less optimistic. But financial director Ray Abrahams is confident that real turnover won't drop on last year's "very good" sales. He says watches have been good sellers.

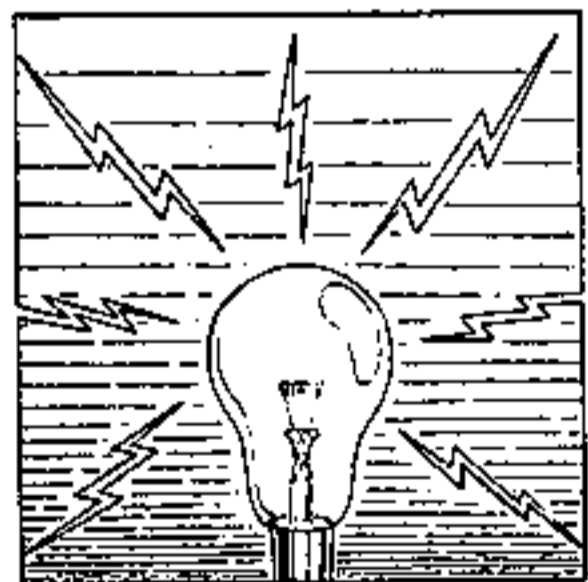
While the JCC reported booksellers as being most pessimistic among the retailers, CNA merchandise director Ian Outram says: "We stocked up for a real turnover increase and early indications are that we were right." Records and cards have been top sellers.

When the festivities are over, it is unlikely that a cautious customer approach will have led to really significantly less money changing hands. But this year it will flow into the pockets of only the most astute retailers.

Christmas could prove to be the crunch time for recession-hit retailers hanging on in the hope that a high turnover period could save them. Higher advertising profiles and price-cuts are not within the range of this group. And if they can't move enough stock by December 25, next January and February should provide marvelous opportunities for astute consumers. The other side of the coin will be continued headaches for small and medium-sized stores.

ELECTRICITY SUPPLY

Escom's power struggle



There seems to be a nasty row brewing between Escom and government, if not a power struggle. Outward intimations are the Prime Minister's "request" to the corporation to reduce next year's tariff rise and suggestions in an Afrikaans newspaper that chairman Jan Smith may not have his appointment renewed next year.

Major cause of the tension is Escom's enormous growth, and its concentration on self-financing in recent years. This has led to fear that this child of the Electricity Act of 1922 has become a law unto itself.

By any standard, Escom is a giant. With a 1981 revenue of R2,1 billion, it produces more than 60% of the total electricity supply for the entire continent of Africa.

Its R20 billion expansion programme for the Eighties makes it the biggest buyer of power generation equipment in the world.

And while the bulk of the private sector and even the other giant State corporations, SA Transport Services (SATS) and Iscor, have temporarily pruned expansion plans, Escom continues to grow. This year, it will spend R2,4 billion on new plant and next year, R3 billion.

In 1953, it produced less than 11% of this country's total energy needs. Last year, the figure was 23% and in the year 2001 it should be 40%.

Over the past 17 years it had an annual real growth of 9,1%, against the SA gdp growth of 4,4%. Its projected growth of about 7% a year until the end of the century means its relative importance and influence in the country's economy will steadily increase.

In combination with this growing economic muscle and a near-monopoly in its market, the Electricity Act gives Escom an awesome power to shape the country's economic development and an immunity to control from outside. Under the Act, its objective is to provide electricity at cost

wherever it can be used for the economic advancement of SA. This means that it can set its tariffs on the basis of its own estimates of future demand without having to obtain government approval.

As power generation is a highly capital-intensive business, Escom's projections of future demand and the plant needed to supply it are an important component of the tariffs it charges today. These, in turn, determine the present viability of energy-intensive industries in sectors such as rail transport, ferro-alloys, chemicals, aluminium, fertilisers and phosphates.

Federated Chamber of Industries chief economist Arthur Hammond-Tooke says that next year's tariffs will force some manufacturers in these sectors to re-appraise their own future plans. Says he: "In the past, cheap electricity encouraged growth of energy-intensive industries. This has necessitated expansion by Escom, but the escalating cost of new plant is pushing up rates to prohibitive levels for some industries."

'Unknown' SA firm ⁵⁵ has R23-m ^{S. Times} ^{19/12/87} world sales

Business Times Reporter

IT could be the largest company of its kind in the world.

It is based in Johannesburg, operates in several countries abroad and is relatively unknown in South Africa.

The Metropolitan Oils group has chalked up worldwide sales of R23-million this year, with around R8-million emanating from its warranty activities and the balance generated from sales of its oil additives.

Of the warranty business, South Africa contributes 60% and Australia the balance.

In the oil-additive field (where the company's world-wide brand name is Forte), sales in South African are R5-million, Spain R3-million, Australia R3-million, Canada R2,5-million, the UK R750 000 and Israel R750 000.

The group is expanding rapidly overseas, with particular attention being paid to aggressive marketing efforts in Spain and certain South American countries.

Joint managing director Pierre de Jager predicts that six months from now the company's sales force in Spain will exceed its South African complement.

He says that, to exploit fully the potential of the company's international expansion, Metropolitan Oils is seeking local or overseas partners of substance.

Most blending of the company's oil additives — a process developed in this country — is carried out in South Africa and then sent to the group's various subsidiaries abroad.

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N-plant blast sabotage, say police

ANC claims Koeberg plant blast

By Mail Correspondent

CAPE TOWN.

THE African National Congress last night claimed responsibility for four powerful explosions which rocked the Koeberg nuclear power station at the weekend.

Police confirmed the blasts on Saturday and Sunday were caused by "explosive devices".

The ANC statement, issued in Dar es Salaam, said the sabotage was carried out by a unit of Umkhonto We Sizwe, the ANC's military wing.

Thirty ANC members killed in last week's SADF raid in Lesotho were buried in Maseru yesterday.

Colonel Chris Coetzee, of the Police Directorate of Public Relations in Pretoria, said the first explosion occurred at 3.23 pm on Saturday in a nuclear auxiliary building on the Koeberg site.

More than five hours later, at 8.36 pm, a second explosion shook the same building. There were two further blasts — one at 11.24 pm on Saturday and the other at 2.53 am on Sunday. Colonel Coetzee would not say where these explosions took place.

ANN PALMER reports Col Coetzee said one of the explosions occurred about 20m from the nuclear reactor but "there was no danger as the wall and the reactor is several metres thick".

He said the extent of the damage was still being investigated by Escom, but no one had been injured and there was no danger of radio-activity to anyone on the site or to members of the public.

Cable trays and other equipment had been damaged.

Col Coetzee said a special team of police explosives experts was being flown to Cape Town from Pretoria to assist in the investigations.

Lieutenant-General Johann Coetzee, head of the Security Police, was due to arrive in Cape Town late yesterday.

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Col Coetzee said no-one was injured in the blasts and there was no danger of radio activity either to the staff on the construction site or to people in the surrounding area.

Bridadier H W Kotze, head of Security Police in the Western Cape, declined to comment on the sabotage.

"I'm not in a position to do so," he said. "I have been to the site but Melkbosstrand is not in my division — the Bolland security police are handling the investigations."

A virtual news blackout was imposed during most of yesterday as local and foreign newsmen tried to ascertain the cause and extent of the explosions.

The nuclear plant site was completely shut off to visitors and the Press. Senior Escom and police personnel were flown in by helicopter for a meeting at midday.

Mr G F Hellstrom, Escom's Western Cape manager, said last night the damage caused by the blasts was "still being assessed".

He said there had been no radio-active material on the site at the time.

The Koeberg plant was scheduled to begin supplying power from one its two reactors into Escom's grid within two months and two-thirds of the Western Cape was to be supplied by Koeberg by the end of next year, reports Sapa.

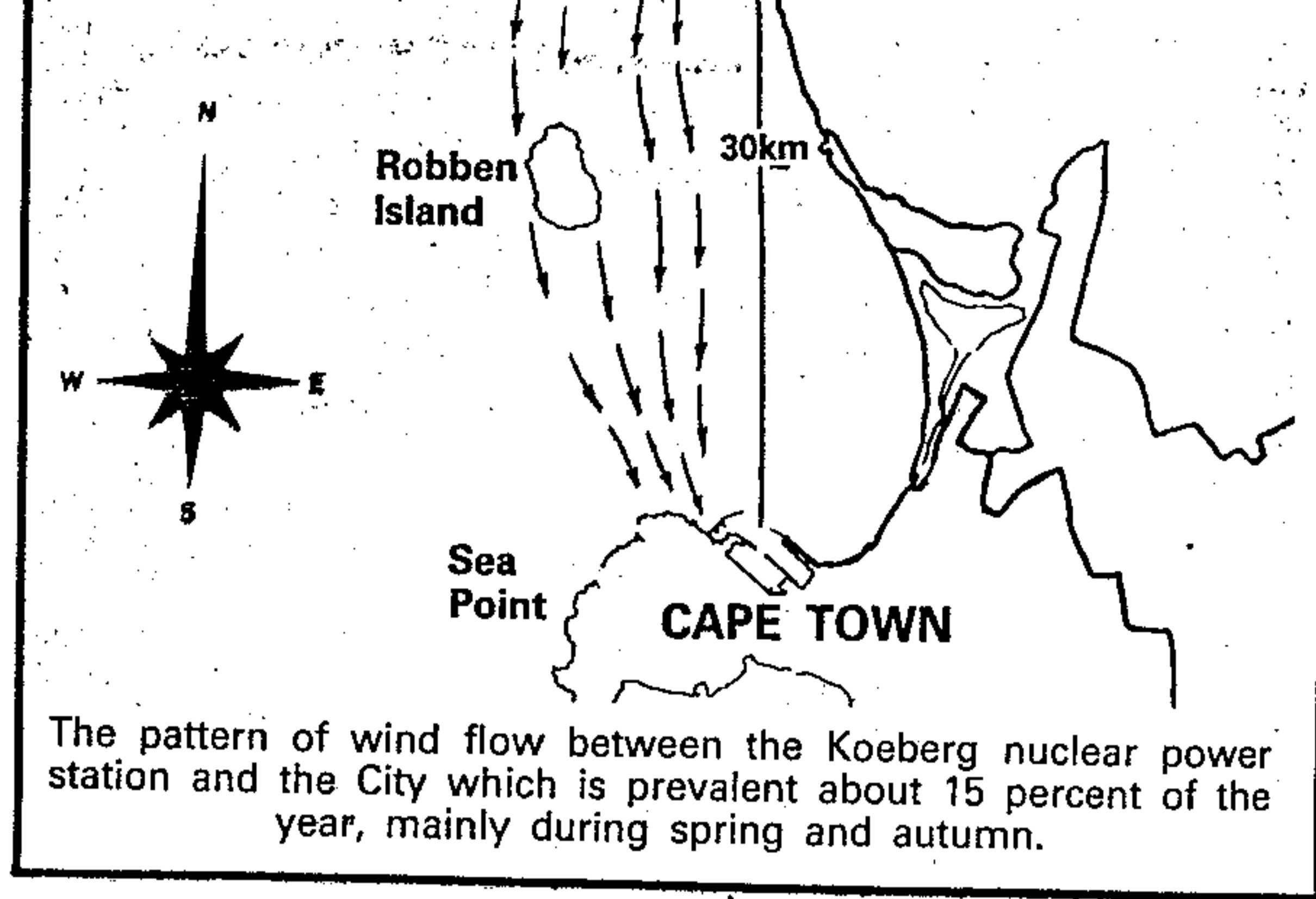
Mr Hellstrom said yesterday: "I cannot say at this stage whether the explosion will necessitate a delay in bringing Koeberg on Stream, as planned, in March next year."

The main plant's electrical centre was the scene of a R250 000 fire in June, which engineers said was accidental.

Koeberg, a French-designed Pressurised Water Reactor, has been the subject of controversy between power company officials, environmentalists and city councils in the Western Cape over safety measures in the event of accidents — a debate fuelled by the Three Mile Island nuclear accident in the United States.

Physicist Dr David Ashman, of the University of Cape Town, said in October a melt-down at Koeberg could result in the deaths of 350 000 people in and around Cape Town.

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The pattern of wind flow between the Koeberg nuclear power station and the City which is prevalent about 15 percent of the year, mainly during spring and autumn.

Hulley calls for fail-safe security

CAPE TIMES 20/12/82

SS
Staff Reporter

THE latest explosions at the Koeberg nuclear power station were yesterday described as "unacceptable" and "intolerable" by Mr Roger Hulley, the Progressive Federal Party's Western Cape energy spokesman.

Until last night, the authorities had declined to disclose information about the blasts.

"Whether the blasts were caused by sabotage or by an accident arising from negligence or faulty equipment is of secondary importance," Mr Hulley said yesterday.

"That they can happen at all at a nuclear installation so close to Cape Town is intolerable."

Mr Hulley said the public had a right to expect that all of Koeberg's systems would be fail-safe and its security systems impregnable.

"What strengthens my concern is that these blasts follow on another serious incident which occurred on July 18, which is still not fully explained. I have reason to believe that security arrangements at Koeberg could be improved. I wrote to the minister in this connection some three months ago."

He said there should be no switch-on at Koeberg until an independent representative body, such as a parliamentary select committee of local MPs, was fully satisfied that the safety and security arrangements at the plant were fail-safe.

'Right to reassurance'

"There is no margin for error in the matter of nuclear safety and the public has the right to total reassurance that they are protected from even a remote danger of a disaster before Koeberg becomes operational," he said.

Dr R J Coogan, Medical Officer of Health for Cape Town, said yesterday that as the power station was not yet "on stream", he did not expect any emission of radioactivity and was therefore "not suprised" that he had not been contacted by Escom.

"Nevertheless, the fact that the blasts have occurred highlights the call for a widespread and comprehensive safety programme well in advance, encompassing all 18 municipalities in the Peninsula area," Dr Coogan said.

The acting chairman of Koeberg Alert, Professor Arnold Abramowitz, asked whether Escom had the ability to "mount the kind of security operation which this giant, and potentially catastrophic, source of power requires".

He said that because of Koeberg's proximity to Cape Town and Atlantis, radioactivity released through a breach of reactor containment could, in the most serious eventuality, kill thousands of ordinary citizens.

"We need an inquiry at the highest possible level into what is going on at Koeberg," Professor Abramowitz said.



Mr Roger Hulley



Professor Abramowitz



Dr R J Coogan

By COLIN HOWELL

THE banned African National Congress (ANC) last night claimed responsibility for four explosions at the Koeberg nuclear power station near Melkbosstrand at the weekend.

Police investigators have disclosed that the blasts on Saturday afternoon and evening and early on Sunday morning were caused by "explosive devices".

The ANC statement, issued in Dar es Salaam, Tanzania, said the sabotage was carried out by a unit of Umkhonto We Sizwe, the ANC's military wing.

The movement said the attack was intended "as a salute to all our fallen heroes and imprisoned comrades, including those buried in Maseru this afternoon". Thirty ANC members killed in last week's SADF raid in Lesotho were buried in Maseru yesterday.

Colonel Chris Coetzee, of the South African Police Directorate of Public Relations in Pretoria, said yesterday that the first explosion had occurred at 3.23 on Saturday afternoon in a nuclear auxiliary building on the site.

Boland roadblocks

A NUMBER of roadblocks were set up and manned by policemen and traffic officers in the Peninsula and the Boland yesterday after the explosions at Koeberg.

A police spokesman said, however, that some of the roadblocks were "routine exercises". Army personnel were not involved, the spokesman said.

More than five hours later, at 8.36pm, a second explosion shook the same building. Two further blasts occurred — one at 11.24 on Saturday night and another at 2.53am on Sunday. Colonel Coetzee could not divulge where these explosions took place.

He said the extent of the damage was still being investigated by Escom, but no one had been injured and there was "no danger" of radio-activity to anyone on the site or to members of the public. Cable trays and other equipment had been damaged.

Colonel Coetzee said a team of police explosives experts was being flown to Cape Town from Pretoria to assist in the investigations. Lieutenant-

General Johann Coetzee, head of the security police, was due to arrive in Cape Town yesterday and was expected to visit the scene.

Brigadier H W Kötze, the Western Cape security police chief, yesterday declined to comment on the sabotage.

"I'm not in a position to do so," he said. "I have been to the site, but Melkbosstrand is not in my division — the Boland security police are handling the investigations."

Shut off

A virtual news blackout was imposed during most of yesterday as local and foreign newsmen tried to ascertain the cause and extent of the explosions. The nuclear plant site was completely shut off to visitors and the press. Senior Escom and police personnel were flown in by helicopter for a meeting at midday.

Mr G F Hellstrom, Escom's Western Cape manager, said yesterday that the damage caused by the blasts was "still being assessed".

Mr Hellstrom said there had been no radio-active material on the site at the time.

Asked whether the explosions had been "large", he said: "As far as I'm concerned, they were small explosions. But what do you call a small explosion? It's relative — and, in any case, I'm not experienced in this field."

Foreign agency

News of the explosions was broken by a foreign news agency with contacts among contractors at the Koeberg site. The South African authorities confirmed there had been several explosions and that nobody had been hurt, but withheld further details until last night.

It is not yet known whether the explosions will affect plans for Koeberg to go on to full power by May or June next year.

● In Paris, a spokesman for Framatome, a major contractor at the R2 300-million complex, said: "It certainly was an attack, an act of sabotage."

The official, who declined to be named, said one of the reactors had been damaged but since it was not on line there was no possibility of any leakage.

4 blasts at Koeberg ANC claim responsibility

CPK Times
20/12/87
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PRETORIA. — Police said today a massive manhunt was under way for ANC saboteurs believed responsible for four explosions at the Koeberg nuclear power station at the weekend.

Police were reluctant to say anything other than that they were working "flat out" on the investigation into the blasts, which apparently damaged cable trays and other equipment and came close to damaging one of the reactors.

Nobody was injured, and Escom says there was no danger of radioactivity.

Cape Town's Medical Officer of Health said today that the penetration of security and the bombing had heightened the need to provide an emergency plan before the power station came into operation.

Dr Reg Coogan said a top-level meeting would take place today between Escom, the Atomic Energy Corporation (AEC) and the local authorities involved in emergency planning for the power station.

"The meeting was planned last week, prior to the incidents at Koeberg over the weekend," he said.

Meanwhile, an Escom spokesman said nuclear fuel held in store at Koeberg had posed no threat at the time of the explosions. He said the fuel became highly radioactive only when placed in the reactor.

"Tight"

The "extremely low level of radioactivity" of the fuel — uranium pellets — allowed it to be packed into rods by hand in France. On arrival at Koeberg it was stored in a maximum security area. It had not been stored in any of the auxiliary buildings hit by the blasts.

The spokesman added that security at this stage was as tight as possible.

"With 5 000 workers passing through the gates of the plant every day as construction still continues on Koeberg I and II, we have a problem keeping a check on every worker."

It was not yet possible to state the extent of the damage.

Earlier, Dr Coogan said: "The fact that the power station can be penetrated in this way gives heightened impetus to the necessity for producing a plan which has been rehearsed and seen to work before nuclear fission takes place at the plant."

Necessity

"Such a comprehensive workable emergency plan, involving all the local authorities in the Peninsula area — 18 in all — needs to be prepared to the satisfaction of the licensing branch of the AEC well in advance.

"It's my opinion that such a plan of necessity involves the general public in its application. It must be thoroughly comprehensible to the people who will be affected, and it must also be such as to inspire their confidence."

The acting chairman of Koeberg Alert, Professor Arnold Abramovitz, said Escom had no right to start up the Number One reactor while there

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Worry about Koeberg security, safety

ARGUS 20/12/82

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were still workers, who might be saboteurs, on the site.

Prior to the blasts, the Number One was due to come on stream early next year. The Number Two reactor was expected to be in operation late in 1984.

Opposition spokesmen today expressed concern about an apparent weakness in security, and said they would raise the issue in Parliament at the earliest opportunity.

Mr John Malcomess, MP for Port Elizabeth Central and the Progressive Federal Party's chief spokesman on energy affairs, said a disaster could cost thousands of lives.

He called on those responsible for the blasts to "leave Koeberg alone."

He said in a statement: "This second breach of the security at Koeberg is most disturbing. We were assured by the Minister after the last episode that 'the standard of security is considered adequate.' It has proved to be the opposite.

"Koeberg is perhaps the potentially most dangerous target in South Africa, and it must be secure. The Minister concerned as well as the Prime Minister and Cabinet must see to that security.

"I intend to raise the matter during the next session of Parliament.

Mr Roger Hulley, MP for Constantia and the PFP's spokesman on Western Cape energy affairs, said he intended to call in Parliament for a parliamentary select committee of local MPs to help ensure satisfactory security and safety measures at Koeberg.

The plant should not be allowed to go into operation before it had been established that such measures were "fail-safe".

Mr Hulley said Escom spokesmen had claimed for a long time that the plant was safe and that there was nothing to worry about.

"The causes of a blast at the plant are less important than the fact of a blast. That such blasts can happen at all is intolerable."

There was no margin for error in nuclear safety.

Mr Brian Page, the New Republic Party spokesman on police and security matters, said the Government owed it to the citizens of the country to build an impregnable security network round Koeberg.

He was horrified that the blasts had taken place at a major installation which was a prime target for any urban terrorism group.

The African National Congress has claimed from Dar es Salaam, Tanzania, that a unit of its military arm, Umkhonto We Sizwe, carried out the attack on Saturday.

MASERU

It said the attack was intended to salute those killed in the recent South African raid into Maseru.

A joint SAP-Escom statement last night said: "There were altogether four explosions at the Koeberg power station construction site.

"These occurred at 3.23pm, 8.40pm and

11.24pm on December 18 and at 2.53am on December 19.

"The explosions caused damage to cable trays and other equipment.

"The extent of the damage is being investigated by Escom.

"South African Police are investigating the explosions, which were caused by explosive devices.

EXPERTS

"South African Police experts are on their way from Pretoria to assist with the investigation.

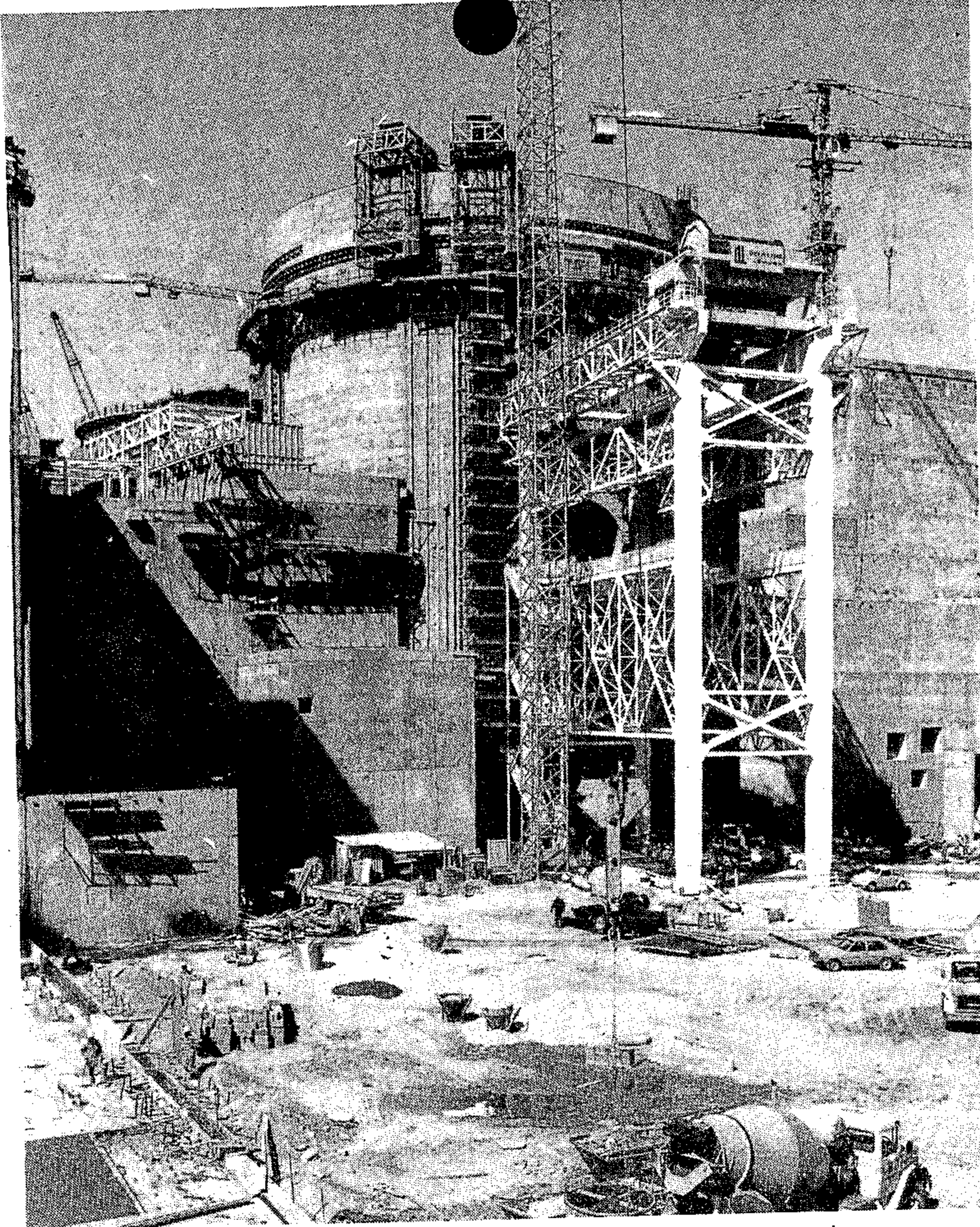
"Nobody was injured and there is no danger of radioactivity either to staff at the construction site or to any member of the public." - Political Staff, Staff Reporters and Sapa.

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A section of the Koeberg nuclear power station under construction.

This picture was issued by Escom

Cape Times 20/12/82 (SS) (P)

Catalogue of trouble

Staff Reporter

SEVERAL incidents involving breaches of security at the Koeberg nuclear power station have made headlines recently.

The following incidents were reported this year:

● May 19: Three workers broke into the premises of an engineering firm on the Koeberg site.

● July 18: An electrical fire inside the Koeberg plant caused damage amounting to R350 000. Details of the fire were disclosed to the media only 24 hours later. Escom denied claims by the

military wing of the ANC that the movement had been responsible.

Escom did not inform either the Cape Town City Council or the Regional Liaison Committee about the fire. Mr Roger Hulley, PFP deputy spokesman on energy affairs, later described Escom's report on the incident as "inadequate".

● In August, two job-seekers got to within "spitting distance" of the nuclear reactors without

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tious 10pm to 5am curfew on "unqualified" blacks in the urban areas and the blanket curfew clause conferring wide powers on the Minister of Co-operation and Development were introduced in this committee. It is also likely that key aspects of the bill were scrutinized by the powerful State Security Council before it was referred to the cabinet committee on constitutional development. The bill, which deals with influx control and the rights of urban blacks, was referred to the parliamentary select committee on the constitution after its publication earlier this year, and further comment from interested parties was invited.

Outcry

The measure evoked an outcry and sharp criticism from a broad spectrum of expert opinion. It has been dubbed a "war measure" which would make the lives of blacks in the cities intolerable and invite "massive police raids" in what would amount to a state of perpetual martial law for blacks. Although the select committee on the constitution, under the chairmanship of Mr Heunis, has agreed subsequently not to deal with the measure until black local authorities have been set up in terms of the new Black Local Government Act, public calls for the measure to be scrapped have continued unabated.

Although the Department of Co-operation and Development, which has borne the major brunt of criticism that has accompanied the bill, bears ultimate political responsibility for the bill, the Minister of Co-operation and Development, Dr Piet Koornhof, like other ministers on the committee, is bound by decisions which are taken on a consensus basis.

Other departments

In addition to the five departments already mentioned, it is understood that the departments of Labour, Justice, and Foreign Affairs were also represented on the committee.

The Orderly Movement Bill was already a redraft of legislation introduced by Dr Koornhof in October, 1980, as part of a "new deal" for urban blacks.

From page 20/12/82

being challenged for permits or identification.

● September 11: A trade union leader, Mr Brian Williams, was dismissed after he allegedly investigated the hazards of nuclear exposure to workers at the site. The Electrical and Allied Trade Union questioned the safety training of unskilled workers at the Koeberg power station.

● September 17: An electrician was fined R600 after being found guilty in the Cape Town Magistrate's Court of photographing electrical work at Koeberg.

● The Cape Times correspondent reports from Johannesburg that in the 10 days since the South African Defence Force raid on African National Congress targets in Lesotho, several violent inci-

dents have taken place in South Africa, in addition to the Koeberg blasts — some of which, according to the police, have been the work of the ANC.

There has been an explosion at another Eskom power station, the Innerdale sub-station near Vereeniging; there has been the assassination of an ANC defector and State witness in many political trials, Mr Batholeme Hlapane, in his Soweto home on the Day of the Vow.

There has been the discovery of two caches of arms near Durban and the arrest of a man in connection with one cache and a woman with the second. In addition an insurgent has been arrested in the Eastern Transvaal.

Colonel Chris Coetzee, head of the Police Directorate of Public Relations, said yesterday that the discovery of caches

and documents was further justification for the "pre-emptive" raid on ANC targets in Maseru by the Defence Force.

But Mr Tom Lodge, author of a forthcoming study on the ANC and a defence witness in several security trials, questioned the validity of that deduction.

It could be held that the "pre-emptive" raid was not really pre-emptive in the sense that it had not forestalled the attacks since then, Mr Lodge said. He was sceptical about reports that the Hlapane assassination had been carried out by the only survivor of a Lesotho-based assassination squad.

The killing, he said, did not appear to be the work of a skilled assassin: He had fired 12 bullets and "hit two more people (Mrs and Miss Hlapane) than he was meant to".

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Weekend TV

TV1

JASON ROBARDS — remember him as the President in "Washington behind Closed Doors?" — was one of the stars in the Saturday night film "A Christmas to Remember".

Eva-Maria Saint and George Parry played his wife and grandson and were equal to him in this heart-warming story of a Christmas in the United States during the Depression. It was an above average offering.

Jim Nabors presented "Christmas in Hawaii" supported by, among others, Carol Burnett and Tom ("Magnum") Sellicks. Nabors's version of the "Twelve Days of Christmas" was a sheer delight.

Sunday night's viewing has taken an upturn with the first episode of Louisa M Alcott's "Little Women".

"The Wonderful World of Disney" featured the boat-niks, part one.

I have seen this film in its entirety and regret the ham-handed manner in which Auckland Park has seen fit to cut it.

ROBERT CAW

TV2 and 3

EVEN though viewers were still fuming over the screening of the same episode for two successive Saturdays of "Kumbula Tata", it has been quite enjoyable to watch.

The last episode, shown on Saturday afternoon, had an element of sadness. Watching Sam recovering after nearly drinking himself to death following his beloved daughter's tragic death was quite something for those facing similar depressing problems to take note of.

This short soapie was not in the class of "Le Tla Mpona" and "USenzekile", but frankly it showed great improvement as it progressed. Pity it was not longer.

TV 1, 2 & 3 tonight

- 5.27: Programme Schedule.
 - 5.30: From The Book. Scripture reading by Elaine Lun and children from Happiness Chinese Creche.
 - 5.34: The Lone Ranger Christmas Story. The gold fever took hold of Ben Talbot and he left his family with the dream of returning a rich man. When Tonto and the Lone Ranger learn that Talbot's son believes that his father will be home for Christmas, they search every mining camp.
 - 6.00: News
 - 6.14: Video Two. A programme for teenagers presented by Richard Loring and Delia Sainsbury.
 - 6.41: The Facts Of Life. Mrs Garrett, the housekeeper of 50 pupils at a private girls' boarding school, does her best to meet life's problems.
 - 7.06: 240 Robert. First Loss. Brad, the younger member of the 240 Robert team, finds himself in the helicopter with the early-morning announcer, Morning Mike. When Mike suffers a heart spasm, he has to make an emergency landing on the edge of a rock.
 - 8.00: Nuus
 - 8.28: Weer
 - 8.40: Verslag. A look at events in the news.
 - 9.14: Lucia Di Lammermoor. The opera Lucia Di Lammermoor by Gaetano Donizetti with the Choir and Symphony Orchestra of Rome conducted by Carlo Felice Cillario.
 - 10.40: Nuus
 - 10.50: Oordenking. The Rev Tony Simpson.
- TV2 & TV3
- 6.30: Ezikasikhova (Fabels). Miss Stork is very ill and the animals don't believe her — they think she is pretending.
 - 6.35: Ubhokoloshe Ibhene (Bolke The Bear). Mellis wants to go back to the circus.
 - 6.45: Radio Buza (Radio Who). There's great excitement at the radio station as decisions are made about Christmas gifts. Even the listeners will get presents.
 - 7.00: Izindaba/lindaba (News).
 - 7.10: Ezangomsombuluko/Ezangomvulo (Monday Deadline).
 - 8.00: Dipapadi (Sport).
 - 8.20: Di A Bere. A programme of light-music for...

Another electricity subsidy this month

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Post Reporter

21/12/87
E. Post

PORT ELIZABETH people who last month received unusually low electricity accounts will not get accounts as low this month though they will be reduced.

Mr Andre Lemmer, Assistant City Treasurer, said that about half the city's electricity consumers had received 39% subsidies on their accounts last month.

"The subsidy was an accumulated one for a four-month period and some people got unusually low accounts for November," he said. "Those who received the subsidy last month won't get it again this month and their accounts, although slightly reduced, will not be as low again."

Those who received the November subsidy can expect a further 20% subsidy based on actual readings at the end of January. Users who did not receive the November subsidy can this month expect a subsidy of 59% calculated on the total amount of electricity used for December.

The 59% is made up of the 39% subsidy received by some users in November and the 20% the same users will receive at the end of January.

Blasts:

Top

officials

meet

CAPE TIMES

21/12/82

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was difficult to assess the damage, it was "fairly big" (redelik groot). He could not confirm that limpet mines were used and would only say that "explosives" were used.

Asked about the five-hour interval between the first two blasts, Mr Hellstrom said Koeberg was a complex site with numerous passages and corridors and police had said it would take about a month to do a thorough search.

About 5 000 people moved through the security gates every day and security was being carried

such as the clothing worn by workers in the reactors.

On security measures, he pointed out that once the reactors went on stream the construction workers would no longer be on site.

The security police, Escom officials and officials of the Atomic Energy Board are investigating.

Brigadier M van Eyk, head of the SAP Directorate, said last night that there were no new developments.

Contacted later, Colonel Chris Coetzee, also of the Directorate, said

Koeberg: Prime target, page 2

out "to the best of our ability". At the time of the blasts the reactor was not loaded and presented no danger to the public, he said.

'Fuel inert'

The public relations officer for Escom in the Western Cape, Mr Andre van Heerden, told the SABC in an interview that there was no risk of increased radio-activity after the explosions.

The only radio-active material on site was nuclear fuel, which at this stage was inert and safe to handle.

The building most severely damaged by the explosions was an auxiliary storeroom, between the two reactors, used to dispose of low-level waste

police were "not prepared at this stage to attribute the blasts to any specific group or organization".

Meanwhile, a statement by the African National Congress in Dar es Salaam said a unit of Umkhonto we Sizwe, the military wing of the ANC, blasted the plant with limpet mines early on Sunday morning.

Brigadier Van Eyk refused to confirm newspaper reports yesterday that a massive manhunt was under way for ANC saboteurs believed responsible for the blasts.

"Intensive round-the-clock investigations are

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To page 2

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By MARK VAN DER VELDEN and COLIN HOWELL

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However, in an interview on SATV news, Mr George Hellstrom, Escom's Western Cape manager, said that although it

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MOORE PARAGON

Koeberg: Council concern

ARGAS 21/12/82
55
848

Municipal Reporter

THE Cape Town City Council today expressed its "deep concern" over events at Koeberg at the weekend and called for tighter security at the nuclear power station.

In a debate on the issue, councillors described Escom's explanation that it was impossible to screen all the workers on the site as "ludicrous".

Mr Norman Osborne proposed a motion of exigency and said Escom should have foreseen the security risk and done something about it.

If it had been impossible to screen 5 000 construction workers on the site it would have been better if the entire construction had been completed before the sensitive parts were installed, he said.

In his statement the Mayor, Mr Kosie van Zyl, said Koeberg's operating licence had to be withheld until security was tightened up and the problem of the emergency plan was solved.

Mrs Joan Kantey said as custodians of public health the council had to be seen to be doing something about the matter.

Mr W H D Scales admonished the councillors for their statements and said they had to be more realistic about the matter.

"Nuclear fuel is the fuel of the future and not a single life has been lost as a result of a nuclear accident," he said.

Blasts: Top officials meet

CAPE TIMES

21/12/82

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By MARK VAN DER VELDEN and COLIN HOWELL

SENIOR government officials, police and security experts held a series of meetings in Cape Town yesterday following the four explosions at Koeberg nuclear power station at the weekend.

Escom spokesmen refused to divulge any further information on the blasts and the extent of the damage and referred all inquiries to the South African Police Directorate of Public Relations in Pretoria.

However, in an interview on SATV news, Mr George Hellstrom, Escom's Western Cape manager, said that although it

was difficult to assess the damage, it was "fairly big" (redelik groot). He could not confirm that limpet mines were used and would only say that "explosives" were used.

Asked about the five-hour interval between the first two blasts, Mr Hellstrom said Koeberg was a complex site with numerous passages and corridors and police had said it would take about a month to do a thorough search.

About 5 000 people moved through the security gates every day and security was being carried

such as the clothing worn by workers in the reactors.

On security measures, he pointed out that once the reactors went on stream the construction workers would no longer be on site.

The security police, Escom officials and officials of the Atomic Energy Board are investigating.

Brigadier M van Eyk, head of the SAP Directorate, said last night that there were no new developments.

Contacted later, Colonel Chris Coetzee, also of the Directorate, said

Koeberg: Prime target, page 2

out "to the best of our ability". At the time of the blasts the reactor was not loaded and presented no danger to the public, he said.

'Fuel inert'

The public relations officer for Escom in the Western Cape, Mr Andre van Heerden, told the SABC in an interview that there was no risk of increased radio-activity after the explosions.

The only radio-active material on site was nuclear fuel, which at this stage was inert and safe to handle.

The building most severely damaged by the explosions was an auxiliary storeroom, between the two reactors, used to dispose of low-level waste

police were "not prepared at this stage to attribute the blasts to any specific group or organization".

Meanwhile, a statement by the African National Congress in Dar es Salaam said a unit of Umkhonto we Sizwe, the military wing of the ANC, blasted the plant with limpet mines early on Sunday morning.

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"Intensive round-the-clock investigations are

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To page 2

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Delay Koeberg' petition

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Internal	External
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By Frans Esterhuysen, Political Staff

A PUBLIC campaign aimed at persuading the Government not to activate the Koeberg nuclear power station until all construction activities had ended and adequate safety and security measures had been provided was launched by the Progressive Federal Party today.

The Delay Koeberg Campaign will include a public petition to the Government and a series of information meetings at which public support will be sought.

Announcing the campaign today, Mr Roger Hulley, MP for Constantia and Western Cape chairman of the Progressive Federal Party, said yesterday's statement on Koeberg by the Minister of Energy Affairs, Mr P T C du Plessis, was inadequate.

"We have had bland assurances and an in-house investigation before, which have not prevented the present sabotage. It is therefore not enough to say Koeberg's commissioning might be delayed — I believe it must be delayed," Mr Hulley said.

Strong appeal

He emphasised that the public petition would not represent opposition to nuclear power as such. It was no more than a strong appeal that there had to be no starting up of the nuclear power station until it was "incontrovertibly safe to do so".

Mr Hulley said the decision to launch the campaign was taken by the Western Cape regional executive committee of the Progressive Federal Party.

The aim was to persuade the Government to delay the commissioning of the power station until all construction work had been completed on the site and until the public had received "absolute assurances that operational systems are fail-safe and security measures will be impenetrable".

"Radiation"

"The public has a right to complete protection from even a remote risk of any incident that could cause a release of radiation so close to Cape Town.

"Now that it has been demonstrated that Koeberg's security has been penetrated during the construction phase it would clearly be irresponsible to activate reactor No 1 on schedule early in the new year while construction activities on No 2 reactor are still in progress.

"Furthermore, it would be no more than commonsense prudence to insist that the plant as a whole should not be switched on until an independent clearance of security and operational safety at the plant has been obtained."

Mr Hulley said it was realised that a delay could mean an expensive
(Turn to Page 3, col 4)

ARGUS 22/12/82
(Contd from Page 1)

capital installation might lie idle for a period, "but we believe this would be far preferable to a situation in which the Western Cape might be at risk".

In view of the festive season, the campaign would only get into full stride in January, but in the meantime members of the public were already being invited to indicate their support and to offer assistance.

Mr Hulley said the text of the petition for which signatures were invited was:

"ASSURANCES"

"We the undersigned citizens of the Western Cape call upon the Government not to activate the Koeberg nuclear power station until all construction activities have been completed and until independent safety and security assurances have been provided to the public."

Mr Hulley invited interested persons to write to the Delay Koeberg Campaign, P O Box 174, Constantia 7848.

He said individuals who wished to submit signatures immediately in support of the petition were welcome to do so.

The Argus Political Correspondent reports that Mr du Plessis said

Koeberg petition

yesterday the weekend explosions at Koeberg had damaged electrical cables and other equipment but there was no danger of radioactive pollution.

He announced that present security measures at the Koeberg site were being investigated.

After a meeting with Escom and Atomic Energy Corporation officials in Pretoria Mr du Plessis said the explosions may delay the commissioning of the first unit at the power station.

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books, notes, pieces of paper or other material may be brought into the examination room as candidates are so instructed.

Candidates are not to communicate with other candidates or with any person except the invigilator.

Part of an answer book is to be torn out.

Answer books must be handed to the commissioner or to an invigilator before leaving the examination.

and to possible exclusion from the

Each such thing that

Mofolo North plugs in — illegally

SS
Sowetan
22/12/82

SOWETO residents, impatient with the progress of the electrification project, have found a way of speeding up the process — by connecting power into their homes illegally.

And the townships' electricity defaulters — who have had their lights switched-off — are also re-connecting the power into their houses illegally.

This was confirmed yesterday by a senior Soweto council official, who added that some residents found doing this had already had their electricity cut off.

The SOWETAN discovered that several Soweto houses — though fitted with wire and cables — had electricity without the knowledge of the council. This meant that they were receiving electricity free-of-charge.

A resident in Mofolo North admitted that he had connected electricity to his house illegally. "We were just tired of waiting for lights, so we spoke to one of the whites fitting the cables and wires and, within a short period, power was connected," the resident said.

Another council source was surprised when told that some houses were already using electricity.

Blast damage 'considerable'

By JANE ARBOUS
Municipal Reporter

THE Koeberg sabotage caused "considerable" damage to the secondary switching equipment, but the nuclear heart and dome were unscathed, the City Council was told yesterday.

Councillor Frank Van der Velde, who after a visit described security at the plant as "token", said that although nuclear material was on site at the time of the blasts, no fission had taken place.

More information on the weekend explosions was given to the council, but because it was on confidential green paper at yesterday's monthly meeting, it was discussed later in committee.

The council unanimously supported an urgent motion put forward by Mr Norman Osburn that the Government should not allow Koeberg to go on stream until maximum security measures had been taken and emergency planning details approved by all authorities.

Halfway through the two-hour debate when Dr R Coogan, the Medical Officer of Health, was outlining the potential hazards facing the City in the event of a radio-active release, the Mayor, Mr M J van Zyl interrupted, saying that more "negative" aspects would "scare" the people of Cape Town.

Earlier, Mr Van Zyl had expressed deep concern over the weekend explo-

sions and called for better security measures.

Councillors urged Dr Coogan to continue, but a short while later Mr Emil Riese warned his colleagues and officials not to go "entirely overboard", and introduced a motion to stop the debate.

After a narrow majority vote in support, Mr Frank van der Velde called for a division. When the names of individual councillors and their votes were called out, several crossed sides and the motion was defeated.

Continuing, Mr Osburn said Escom had failed to gain the public's confidence. The council had been given platitudes and excuses, one of which was that it was impossible to screen all the 5 000 construction workers at the plant.

Why, he asked, did Escom keep sensitive material on site if it knew it could not control its employees?

If the authorities could not guarantee more adequate safeguards, then the entire project should be aborted, even at this late stage.

Several councillors said there was no such thing as "100 percent" security. Nuclear power stations were built to withstand a great deal of damage.

As for Cape Town, it would have to live with Koeberg. Nothing the council said during the debate would have any effect on the administration of the plant, they said.



Mr Pieter Croucamp ... a picture taken some years ago.

Mr Pieter Croucamp, of Maraville Court, who had no hands, is thought by police to have been strangled sometime over the weekend. He had also been beaten about the head with an unknown object.

His pair of artificial arms was lying near his body, his feet had been tied up and he was gagged.

Two neighbours, Mr Ilho Lezar and Mr Karl Neethling, made the gruesome discovery about 10.45pm on Monday night. Mr Neethling climbed through a broken window after Mr Croucamp did not answer when they knocked loudly.

"He was completely helpless without his mechanical arms," Mrs Norma de Wet, a housewife who lives in the flat next to Mr

hands in a print could get parole sentence. He was spoken. A lot of to drink in his flat never any trouble.

Mrs De Wet said had been a security Woodstock clothing

A friend of Mr Linda van der Me

Wessels: Aussies may face backlash

From MARSHALL WILSON MELBOURNE. — Australia is likely to face trouble from black member-nations of the International Cricket Conference over the selection of South African-born Kepler Wessels in its test team.

There are indications here that some members of the ICC — India, Pakistan and the West Indies — will choose the Prudential



Kepler Wessels

World Cup tournament to be played in England in May as the event from which to attack Australia.

If that doesn't happen, then Australia's tour to the West Indies in 1984 is seen as another good chance to stage a protest.

Peter McFarlane, one of Australia's best informed cricket writers, has suggested in the Melbourne Age that the selection of Wessels is going to make things extremely awkward for Australia's cricket administrators and politicians.

● Stormy times ahead for Kepler, back page

Koeberg may be delayed

CAPL TIMES

22/12/82

55
85

Own Correspondent

JOHANNESBURG. — The four explosions at the Koeberg nuclear power station at the weekend might delay the commissioning of the first unit, the Minister of Mineral and Energy Affairs, Mr Piet du Plessis, said in a statement in Pretoria yesterday.

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A From page 1

of activating number one reactor while they are still building the second one.

"I think that would be a ridiculous risk. There should be no activation of the plant until all construction work has been completed and until we are satisfied with the security measures."

● Colonel Chris Coetzee, of the SAP Directorate of Public Relations in Pretoria, said yesterday that no further information concerning the blasts could be divulged at this stage.

"Investigations are continuing and a statement will be made in due course."

Police explosives experts were still investigating the damage and materials.

The minister gave an assurance that Koeberg would not be commissioned at the risk of public safety.

He also said there was "absolutely no danger of radio-active pollution". The explosions, he said, had damaged electrical cables and other equipment.

Mr Du Plessis said he had given instructions that present security measures be investigated anew, and for in-depth consultation with other special organizations.

Investigations by specialists from Escom, the Atomic Energy Corporation and the contractor had been in progress since Sunday. The police were also investigating.

The plant was still under construction and several thousand construction workers needed to enter the site daily.

"Intensified security measures are being implemented in accordance

with progress in the completion of the plant, and as such measures become practical."

When the plant became operational, only strictly-screened operating personnel would be allowed on site.

Mr Du Plessis said there were more than 200 nuclear power stations in operation throughout the world, the first of which came into commercial use 25 years ago.

The operational safety of Koeberg was determined and controlled in terms of the Nuclear Energy Act by the Atomic Energy Corporation, as well as by the Council for Nuclear Safety.

"In the case of South Africa, these provisions are among the strictest in the world. I again wish to give the public the absolute assurance that all aspects of nuclear safety continuously enjoy serious and intensive atten-

tion of the government, the Atomic Energy Corporation, Escom, as well as the independent Council for Nuclear Safety."

● In Cape Town, Mr Roger Hulley, chief Opposition energy spokesman in the Western Cape, said yesterday: "The important issue is who will be doing the investigation."

"The last time it was an 'in-house' investigation and they could not establish what exactly had caused the fire they were looking into. There is no point in repeating this exercise."

"What we want is an independent inquiry by an independent body to clear the security measures before there is any switch-on at the power station."

"They say they cannot control all the construction workers going on site, yet they are talking

Koeberg blasts intensifies

row over safety

SABOTAGE at the the Koeberg nuclear power plant has intensified an already bitter row among politicians, environmentalists and scientists over safety measures to protect people living in the Cape Town area in case of a major disaster.

Responsibility for four blasts at the still unfinished plant last weekend has been claimed by the banned African National Congress. But the fact that the blasts could have occurred at all was denounced by a spokesman for the Progressive Federal Party, Mr Roger Hulley, as unacceptable, and a matter of grave public concern.

"The public has the right to expect that all systems at Koeberg should be fail-safe and its security impregnable before the plant becomes fully operational," he said.

A University of Cape Town physicist, Dr David Aschman, has estimated that a major disaster at the plant about 48 kilometres north of Cape Town could kill 350 000 people in and around the city.

A spokesman for Koeberg Alert, a Cape Town pressure group which opposes the use of nuclear

energy, said the sabotage attack had highlighted the potential danger of having a nuclear reactor as a target in a society characterised by violence.

"Had Koeberg been operational, the health and safety of the citizens of greater Cape Town would have been placed in jeopardy," the spokesman said.

Despite all the assurances from Escom it was clear that security at Koeberg was grossly inadequate, he added.

The ANC has carried out a series of attacks on power plants, fuel depots, government buildings and police stations in the past two years. Guerillas using Soviet-type limpet mines, which stick to their target, took part in an attack which damaged Sasol installations in the Transvaal in June 1980.

Earlier this month South African commandos raided ANC targets in Maseru in what they said was a pre-emptive strike aimed at preventing ANC "deeds of terror" in South Africa and

By DAVID REID
in Johannesburg

the black homelands of Transkei and Ciskei over Christmas.

The Koeberg plant would appear to have been a prime target in the ANC campaign.

In an interview Escom's Western Cape regional manager, Mr George Hellstrom, said there was no radioactive material on the site at the time of the explosions.

He also spoke of the difficulties of ensuring cast-iron security while construction on South Africa's first nuclear plant was still in progress, with 5 000 workers entering the site every day.

Damage was still being assessed, he said, and it was impossible to say at this stage whether there would be a delay in bringing Koeberg on stream as planned. Normal work on the plant had already resumed.

Mr Hellstrom declined to

comment on reports that one of the two reactors had been damaged or that Escom employees or construction workers might have placed the explosives.

The French-designed, \$1.7 billion (R1.9 billion) plant is due to begin supplying power from one of the reactors into Escom's electricity grid within two months and to go onto full power by May or June next year. Two-thirds of the Western Cape is due to be supplied by Koeberg by the end of 1983.

According to a police spokesman in Pretoria, one of the four explosions at the weekend occurred about 20 metres from a nuclear reactor but "there was no danger as the wall around the reactor was several metres thick."

Opponents of the Koeberg nuclear plant have cited several incidents involving what they say were breaches of security at the plant in recent months.

Among these were thefts and damage on the site, the fining of an electrician who

photographed installations at Koeberg and the case of two job seekers who said they got to within "spitting distance" of a reactor without being challenged.

On November 3, Cape Town's Medical Officer of Health, Dr R J Coogan, accused Escom of going back on pledges that the City Council would be involved in drawing up an emergency plan for Koeberg. Under this plan, sirens would alert people living in the danger zone — a five kilometre radius around Koeberg — if a serious accident occurred.

People outside this zone would be warned by police or emergency workers using loud hailers, and normal programmes on all broadcasting channels serving the area would be interrupted for warnings to the public.

The plan provides for evacuation of people in extreme cases, but according to nuclear physicist Dr Aschman it is still imperfect and needs more clarification over which civil bodies would have the final authority in carrying it out.

South Africa's Atomic Energy Corporation must approve the plan before it grants permission for Koeberg to go on stream.

Wrab warns on Soweto's illegal lights

55

~~7/12/82~~

Sowetan

23/12/82

RESIDENTS connecting electricity into their homes illegally were risking their lives, the West Rand Administration Board (Wrab) warned yesterday.

Wrab's director of electricity, Mr Melt van der Spuy, said residents connecting power without the permission of the authorities would be prosecuted.

This follows a SOWETAN investigation which revealed that numerous Soweto residents, impatient with the progress of the electrification scheme, were using electricity in their homes illegally.

It was also found that several householders who had their lights cut off because of being in arrears with payment, were reconnecting electricity without the knowledge of the authorities.

"We should like to issue a very strict warning to residents that they are also risking being electrocuted because the electricity they are using has not been approved.

"That is, the normal procedure is that the board submits a report from each household to the Johannesburg Electricity Department for tests. It's only after this report has been passed that power is connected to a house," Mr van der Spuy said.

He appealed to the residents to be patient and wait until their areas had been switched on officially. All the houses in the townships were scheduled to be switched on by the end of the next year.

So far 56 609 houses had been tested and passed and were already on line.

Province 'will have Koeberg disaster plan'

ARGUS 23/12/82 (98) (55) (56)

Science Reporter

THE Cape Provincial Hospital Services have been working on the medical aspects of emergency plans for any disaster, and will be ready for any accidents at Koeberg nuclear power station when it is activated, the Director of Hospital Services says.

Dr Radie Kotze said work had been going on for at least three years.

A specialised study group was working on emergency plans to deal with any conceivable accident at Koeberg.

He had been asked what role the Provincial Hospital Services were playing in emergency planning for the power station.

System

Dr Kotze said a system existed of general preparedness for medical emergencies.

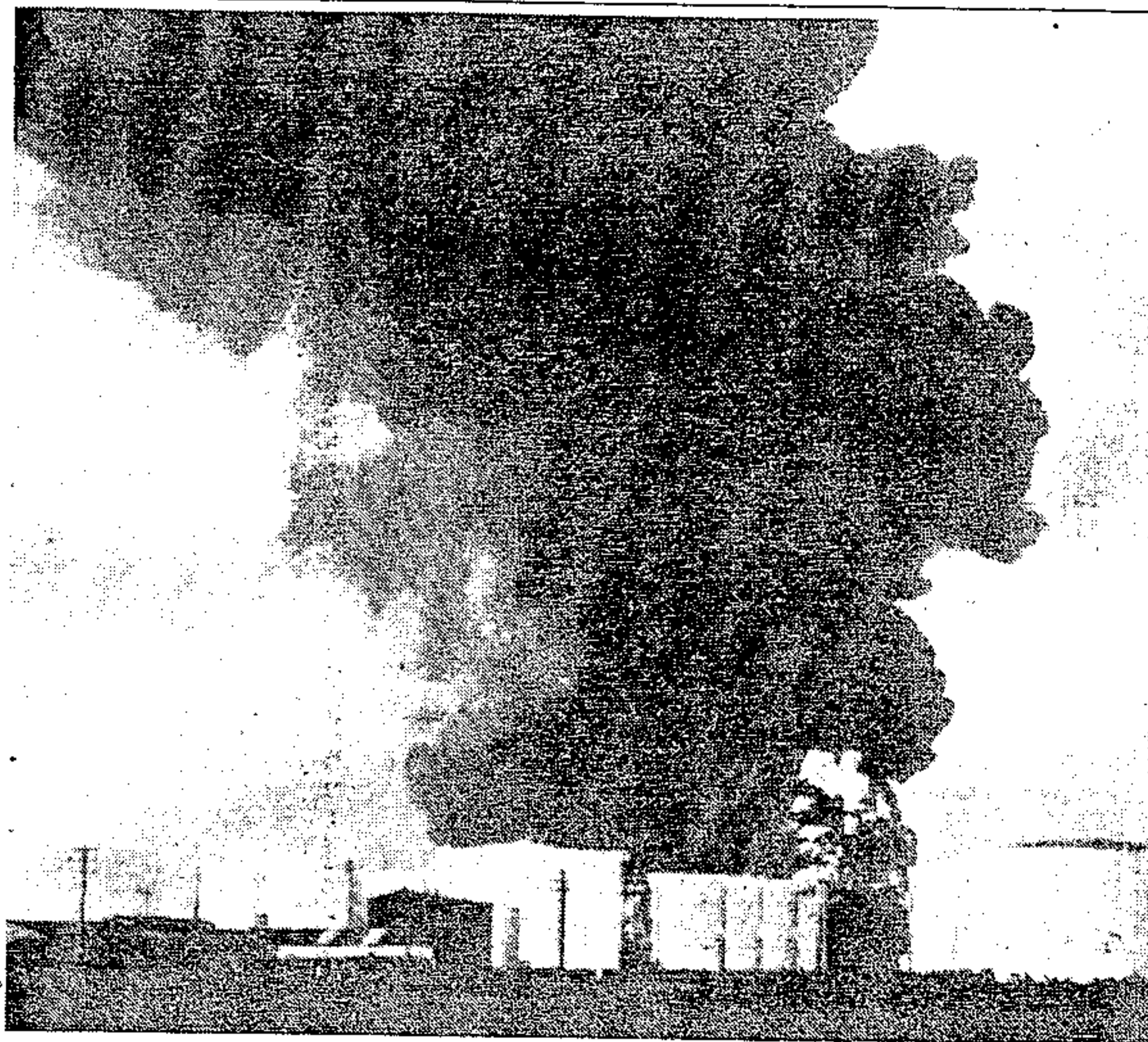
"We think we have a plan that can be adjusted to deal with major emergencies of any kind, including those that may occur as a result of an accident at Koeberg.

"The existence of Koeberg is a special situation that deserves special attention, in order that we may adjust our general emergency system to respond to the specific demands it creates."

His department kept the emergency planning system up to date in every respect.

All aspects

"We are members of the International Civil Defence Organisation, which supplies us with the most up-to-date information on every aspect of emergency and disaster planning, including that which relates to nuclear power stations.



SMOKE billows from the fuel tanks at the Kenya pipeline main depot in Nairobi's industrial area after fire broke out there yesterday. Two tanks have been destroyed and 9-million litres of fuel lost.

"The over-riding priority, as far as we are concerned, is keeping abreast of the new knowledge in this field. To this end, a special effort is made to organise diversified study groups which are expected to keep abreast of knowledge and research in their specific areas."

In a disaster which affected thousands of people, both private hospitals and medical staff would be included in the emergency operation.

Metro

"The very existence of the Metro Rescue Centre means we have 24-hour call on anybody who may be needed to render assistance. The civil defence plan involves the Defence Force. Its resources can be called on, if needs be."

Dr M Jooste, Deputy Director in charge of planning, said the Peninsula had hospitals with large-scale casualty-handling facilities.



**UNIVERSITY OF CAPE TOWN
EXAMINATION ANSWER BOOK**

EVERY CANDIDATE MUST enter in column (1) the number of each question answered (in the order in which it has been answered); leave columns (2) and (3) blank.

SECTION B

All answer books must be numbered

Number of books handed in	<i>4</i>
Number of this book	<i>4</i>

'No output before safety probe ends'

ARGUS 23/12/82 (SS) (FF) (DIA)

By Tos Wentzel
Political Correspondent
THE Minister of Mineral and Energy Affairs, Mr P T C du Plessis, today repeated an assurance that the first unit at Koeberg nuclear power station would not be commissioned until security investigations were complete.

He was reacting to a move by the Progressive Federal Party to launch a "Delay Koeberg" campaign following the

weekend explosions. He said a team of overseas consultants had for a considerable time been helping with a security analysis.

Criticising the announcement of the Progressive Federal Party plan by Mr Roger Hulley, MP, Mr du Plessis said there was no need for a public debate on the matter as the responsible bodies were prepared to discuss it with Mr Hulley and others.

Physical security formed part of the investigation.

The first Koeberg unit would not be commissioned until the investigation had been completed to the satisfaction of the Nuclear Energy Corporation and the independent Nuclear Security Council.

The Minister also repeated an appeal to the public not to go overboard on the matter. It served no purpose to try to sow unrest, he said.

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Examiners' Initials		

Paper No. *PAPER I*
(to be copied from the heading on the Examination Paper)

NOTE CAREFULLY

1. Enter at the top of each page and in column (1) of the block on this cover the number of the question you are answering.
2. Blue or black ink must be used for written answers. The use of a ball point pen is acceptable. Red or green ink may be used only for underlining, emphasis or for diagrams, for which pencil may also be used.
3. Names must be printed on each separate sheet (e.g. graph paper) where sheets additional to examination book(s) are used.
4. Do not write in the left hand margin.

WARNING

1. No books, notes, pieces of paper or other material may be brought into the examination room unless candidates are so instructed.
2. Candidates are not to communicate with other candidates or with any person except the invigilator.
3. No part of an answer book is to be torn out.
4. All answer books must be handed to the commissioner or to an invigilator before leaving the examination.

Any dishonesty will render the candidate liable to disqualification and to possible exclusion from the University

Minister rebukes PFP on Koeberg

CAPE TIMES

24/12/82

SS
[scribbles]

Own Correspondent

PRETORIA.—The Progressive Federal Party's public campaign to delay the activation of the Koeberg nuclear power station has provoked a sharp rebuke from the Minister of Mineral and Energy Affairs, Mr P T C du Plessis.

Mr Roger Hulley, PFP MP for Constantia and regional chairman of the Cape Western executive of the PFP, said on Wednesday that the statement made by the minister earlier this week on the four weekend explosions at Koeberg had been "inadequate".

The PFP has called on the government to stop the nuclear power station from going on stream until all construction work has been completed and the public assured that every precaution on safety has been taken.

Reacting to Mr Hulley's statement, Mr Du Plessis issued the following statement last night: "In view of my statement when I gave the assurance on behalf of the government that Koeberg 1 will not be commissioned at the cost of the safety of the public, and my appeal to the community not to over-react as a result of rumours presently in circulation, I

am surprised that Mr Hulley, MP, intends launching a campaign which can only result in furthering unfounded anxiety among the general public.

"In doing this it would seem that Mr Hulley apparently does not understand my statement and now accuses the government of acting in an irresponsible manner regarding public safety, in spite of my assurance in this regard.

"In my view, matters like these, which are in the national interest, should be kept above party politics."

Mr Du Plessis reiterated an earlier assurance that a licence for the commissioning of Koeberg 1 would not be issued until all investigations on the safety of Koeberg by specialist and responsible bodies had been satisfactorily completed.

"In my opinion there is no need to initiate a public debate on this matter as all the responsible bodies are still, as always, prepared to discuss this matter in a responsible manner with Mr Hulley and other persons concerned," Mr Du Plessis said.

PPP to go ahead with campaign on Koebergs

AG65 24/12/82 55



Mr Roger Hulley

Political Staff

THE Delay Koeberg Campaign would go ahead in spite of objections from the Government, the Western Cape regional chairman of the Progressive Federal Party, Mr Roger Hulley, said today.

He said the question of the Koeberg nuclear power station — which could affect public safety — was precisely the kind of issue that should be fully aired in public.

Mr Hulley was reacting to allegations by the Minister of Mineral and Energy Affairs, Mr P T C du Plessis, that the Delay Koeberg Campaign could create "unfounded anxiety" among the general public and that such matters should be kept above party politics.

Opinion

The Minister said in a statement yesterday that in his opinion there was no need to initiate a public debate on the matter.

He also repeated his assurances that Koeberg would not be commissioned at the cost of public safety.

Mr Hulley, MP for Constantia and party spokesman on energy affairs in the Western Cape, said today the campaign would go ahead as planned. It was aimed at preventing a switch-on at Koeberg until it was quite safe to activate the power station.

"It is the function of an opposition to take up an issue of public importance," he said.

"Duty"

"I believe we would be failing in our duty if we did not vigorously represent the public's present concern about Koeberg"

The Progressive Federal Party believed it was right to give the man-in-the-street the opportunity to be heard on a matter that could affect his safety.

Rejecting the Minister's argument that there was no need to initiate a public debate, Mr Hulley said: "This is precisely the sort of issue which should be aired in public. The public has a right to know and to hear all sides of such an important issue."

"The Government's tactics seem to be to try to play down the whole affair as much as possible and to provide the public with minimal factual information, accompanied by soothing reassurances."

Approach

"I disagree with such an approach. The Government should rather play open cards."

"A public debate will not cause alarm and unfounded rumours. These flourish in a climate of excessive secretiveness, which is increasingly becoming a hallmark of the present Government."

Mr Tian van der Merwe, the Progressive Federal Party MP for Green Point, said Mr du Plessis had "a cheek" to attack Mr Hulley for initiating the campaign.

Mr van der Merwe, whose constituency faces Koeberg across Table Bay, said he had put questions to Mr du Plessis's predecessor, Mr F W de Klerk, in Parliament about the safety of Koeberg.

"I repeatedly received assurances that everything was being looked at and that security arrangements were perfectly adequate and were constantly under review."

"Mr du Plessis should not now be surprised if Progressive Federal Party members are not satisfied with mere assurances."

24/12/82 (55)
Power cut
by blast *Stan*

By Gavin Engelbrecht
West Rand Bureau

Randfontein and the West Rand Consolidated Gold Mine were plunged into darkness last night after an explosion at 10 pm at an electrical sub-station between Krugersdorp and Randfontein.

A transformer was destroyed and Escom officials estimated damage at R700 000.

Major Q Papenfus of Police Headquarters in Pretoria, said sabotage was not suspected.

"A transformer overheated and short-circuited and set others alight," he said.

Police, mine security officials, traffic police and the Krugersdorp Fire Department were on the scene within minutes.

Two trucks from the Krugersdorp Fire Brigade extinguished the blaze within half-an-hour. Police explosive experts could find no evidence of any explosive devices.

Escom engineers managed to restore power by midnight.

'Good chance of viable oil find off coast'

55 E. Post 27/12/82

JOHANNESBURG — In view of the recent successes enjoyed by Soekor in their off-shore oil exploration programme, there is a good chance that South Africa will discover economically viable quantities of oil.

This was stated by Soekor's general manager, Dr Piet van Zyl, in the Springbok Radio programme, *Top Level*, last night.

He said the availability of good source rock around South Africa's coast and improved drilling techniques, as well as Soekor's recent successes, had created a favourable climate for significant oil discovery.

Dr Van Zyl added that a well would have to yield at least 20 000 barrels of oil a day, as well as 3,5 cubic metres of gas, with reserves for at least 15 years before it could be considered economically viable.

Another speaker on the programme, a researcher with the Department of Mining and Geology at the University of the Witwatersrand, Mr Tony

Cadle, said there was promising oil strata around South Africa's coasts. He added the source rock where Soekor was concentrating its search had the best potential for a good find and this rock also showed good reservoir characteristics.

Mr Cadle said Soekor's two finds during the past year had been significant.

Dr Van Zyl said the land search abandoned by Soekor four years ago would not be resumed, although there were still some private companies involved in limited land exploration.

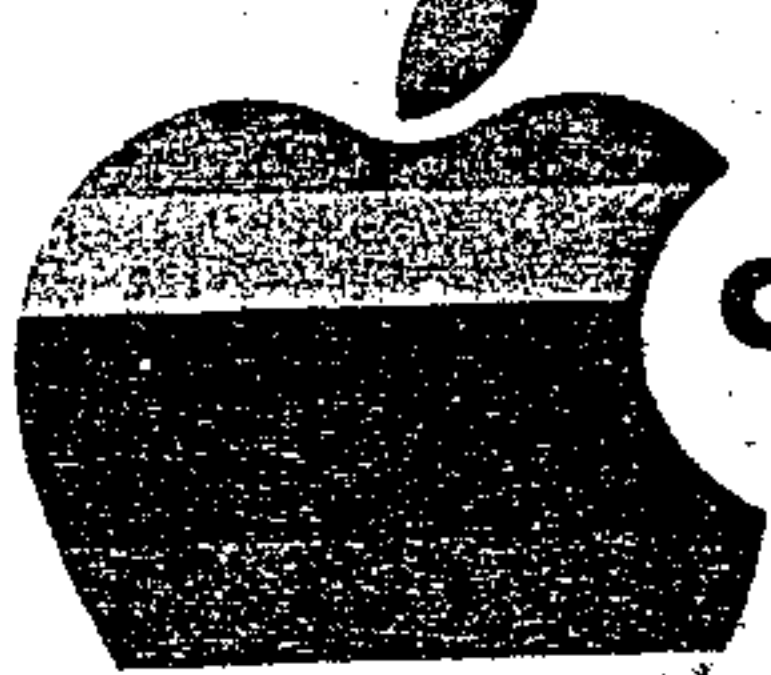
Asked if a significant oil find would bring about a drop in fuel prices, Dr Van Zyl said this was unlikely.

He said experience in Britain had shown fuel prices had risen in the wake of the large oil discoveries in the North Sea and the same tendency would probably prevail in this country.

But South Africa would save large amount of foreign exchange by not having to import oil. — Sapa

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Storm kills two, chaos to US

tors and nurses to relieve staff who have been on duty since Friday night. Denver's Stapleton Airport, reputed to be the seventh busiest in the world, was closed over Christmas for the first time in 20 years, disrupting thousands of people's travel plans. Police yesterday repeated warnings to residents of Rocky Mountain and Great Plains states not to travel. The blizzard gathered on the California coast last week where it contributed to 14 deaths and levelled homes and businesses. Meanwhile tornados that ripped through Arkansas and

Missouri over Christmas injured more than 30 people and caused damage costing millions of rands, national weather service officials said.

In Canada hundreds of families in the suburbs of Montreal began the festivities without electricity as sleet short-circuited transformers.

Residents of mid-western towns began evacuating homes as rivers rose in low-lying areas.

In the mountains, the heavy snowfall raised the prospect of avalanches in coming days. — Sapa-Reuter.

SA may
make ^{ROOM} (55)
good oil
27/12/82
strike

THE chances of a significant oil find off the South African coast have improved, the general manager of Soekor, Dr Piet van Zyl, said yesterday.

Speaking in the Springbok Radio programme, "Top Level", Dr Van Zyl said the availability of good source rock around South Africa's coast and improved drilling techniques, as well as Soekor's recent successes in its off-shore oil exploration programme, had created a favourable climate for significant oil discovery.

There was a good chance that South Africa would discover economically viable quantities of oil.

He said a well would have to yield at least 20 000 barrels of oil a day as well as 125 cubic feet of gas, with reserves for at least 15 years, before it could be considered economically viable.

Another speaker on the programme, a researcher with the Department of Mining and Geology at the University of the Witwatersrand, Mr Tony Cadle, said the source rock where Soekor was concentrating its search had the best potential for a good find.

Soekor's former general manager, Dr Frans Quass, said the corporation's latest successes had created a greater interest among international oil companies and although these companies were not at present actively involved in Soekor's search, major oil discoveries might encourage them to rejoin the exploration work.

Dr Van Zyl said the land search abandoned by Soekor four years ago would not be resumed, although there were still some private companies involved in limited land exploration.

He said it was unlikely the oil find would bring about a drop in fuel prices.

He said experience in Britain had shown fuel prices had risen when large discoveries were made in the North Sea and the same tendency would probably prevail in South Africa. — Sapa.



The bouncing baby is Sandra Alegria, born on Christmas morning to Sandra and Johnny Alegria.

the Marymount Maternity Hospital reports a doubling of figures in their records.

Six Christmas babies were born at the Johannesburg Hospital, and three at the Florence Nightingale Maternity Home in Hillbrow.

Other hospitals would not disclose their figures.

Meanwhile, Sapa reports from Cape Town that one of South Africa's oldest Christmas babies, Mrs "Ouma" Carelse of Retreat, celebrat-

ed her 101st birthday this year.

Mrs Carelse, who was born in Stanford near Hermanus, spent most of her life as the local midwife near Caledon.

According to a relative, Mrs Carelse has 12 children, 45 grandchildren and 87 great-grandchildren, and at last count boasted 11 great-great-grandchildren.

● Pictures
— Page 4

with wages, and is still the likelihood of future troubles the issue of allocation of occupations.

The wage also sparked a spread of unrest at mines in the fields and Genconing houses in July with black workers protesting in some cases. More than 1 000 dismissed, hundreds were arrested and died during the ineffective worker representation was seen as a factor in the unrest.

In June the Intimidation Act came into being and was used by trade unions as a weapon to interfere with union activities.

The Act appeared to have largely been used against unionists, but courts usually have remained in charge of being drawn.

Fosatu's Metal Allied Workers' Union whose members borne the brunt of the intimidation Act of this year, has called for the repeal of the Act.

Many of the unionists who were detained in widespread Security Police searches late last year were released.

Three senior officials of the South African Allied Workers' Union — its president, Thozamile Gqwane, vice-president, Mr Njikelana, and general secretary, Mr Sarikine — were released this year while charges after they were held in detention for long periods.

BANNINGS

The leadership of the Port Elizabeth-based Motor Assemblers and Components Workers Union (Macwusa) was stifled effectively by detentions last year. After five officials were released in March this year, four were served two-year banning orders, including Macwusa's chairman, Mr Dumile Makanda.

The issue of detentions of trade unionists caused a row at the Trade Union Council of South Africa's annual conference in Cape Town in September.

Some affiliates called for the condemnation of unionist detentions and support for those affected by such police action.

Of bills and potholes

Sowetan 27/12/82 (55)

Soweto waits for light

By LEN KALANE

IT WAS again the year of the trenches, the potholes, the cables, the bumps and the humps... but above all, the year of near-reality for the massive Soweto electrification scheme.

The year of astronomical electricity bills, some accounts a huge joke, other maddeningly serious.

Take the case of the Orlando East man who was landed with a R1 249 electricity bill. On checking it out, it was found the man didn't have electricity supplied to his site at all. Just one of those 1982 electricity 'jokes' from the Soweto scheme.

The Soweto household bills, argued one, reflected something next to the accounts paid at the posh club Easy by Night, the East Rand entertainment mecca which boasts psychedelic lights and all.

Once, MP for Lower Houghton, Mrs Helen Suzman had to step in to challenge these "abnormal" bills.

Civic leader Dr Nthato Motlana is on record as saying (as a joke?) the electricity bills were "a grand design to drive away blacks to the homelands".

These were just some of the happenings which took out the brightness

from the Soweto electricity programme.

There were the trenches too, called "progressive holes" by Wrab officials and called "death traps" by some cynics. At least five people are known to have died as a result of these trenches...

By the end of 1983, officials have promised, Soweto will have new upgraded essential services and electricity in every house. The cost of the project will total to R376-million.

Talk has been about the big switch ON... and impatience was evident.

But then it appears the much awaited big switch ON is OFF. Authorities are said to be connecting power from area to area, a near reality for the Soweto scheme. After all you don't have to wait for December 1983 — when initially it was said the houses would be switched on at once.

Officials said power was being connected in Soweto at a rate of 3 000 houses a month to meet the 1983 deadline. Already, officials said, 25 000 houses had been

connected to the new power system and it is hoped a total of 105 000 will be connected when the project is completed in 1983.

1982 was also the year that saw Soweto switch over to Escom power after the old Johannesburg City Council electricity system was abandoned because it is loaded to capacity.

Soweto consumers would be charged 3,5 cents per unit from the direct power of Escom and the average amount of the monthly bill would be R35 to R40, officials said.

But the R35 to R40 average monthly bill was not to be. In fact, the situation worsened to R1 000 bills, one householder discovered.

Meter readers were blamed for this because "they don't read the meters and in some cases don't turn up for more than a year." But an official, Mr G J Jacobs of the Soweto Council, blamed the high bills due to excess use of electricity or arrear accounts. Nobody seemed to know precisely the cause of the huge bills.

The electrification

scheme turned sour for hundreds of Soweto residents this year because of impatience. Residents observed that other areas were already connected to the power while they were still waiting.

Wrab's acting director of electricity, Mr Steve Burger, said technical problems had delayed the switch on in other areas. He said some houses had already started receiving power.

By June over 39 000 Soweto houses were fitted with wire and cables. Another 41 000 were expected to be wired in July and another 44 700 expected to go through the same process in January 1983.

But impatience, we get it through the grapevine, has driven some residents who have their houses wired connecting power illegally from bases. Just how on earth they do it is your guess and their secret.

It is now the end of 1982 and trenches are refilled for the festive period. A festive break for the electrification scheme.

A bright Christmas and New Year for those with power switched on, the normal black Soweto for those without power. Let's wait for December 1983, the deadline to this massive project.

These disputes largely successfully were resolved after negotiations.

RESPONSIBILITY

Fosatu raised the issue of corporate responsibility for industry giants as the result of two strikes this year.

Barlow Rand was taken to task over a dispute at Veldspun in Uitenhage. Although the textile firm is owned by Durban-based Romatex, Romatex is owned by Barlows.

Senior Barlow officials were involved in

ing share of the car market.

as well as Port Elizabeth-area employers criticised SATS

The overriding issue for many months is likely to be retrenchments as there is now no end in sight to the recessionary problems facing South Africa.

Wage issues are likely to come up again soon as public servants have been promised negligible increases by Government officials for 1983.

to be another year in labour relations.

Terrorists hit SA—French nuclear deal

64

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Star

28/12/82

Own Correspondent

PARIS — France's most dangerous and mysterious terrorist movement has warned the French Government to drop plans to sell a second nuclear power plant to South Africa.

The Bakunin Movement, named after the 19th century Russian anarchist Mikhail Akun, has already attacked 14 targets with explosives in Paris in the past year. Yet police are no nearer to discovering the size of the movement, identifying any of its leaders or members or finding its real aims.

The most recent victim was Belgian industrialist Baron Edouard Empain whose small aeronautical equipment firm in Paris was blown up on Sunday.

A letter sent to three newspapers and signed by the movement claimed to have attacked the firm because it was "selling arms to massacre peasants in the Third World". It then went on ominously to say that "if the French Government does not abandon its plans to sell a second nuclear power plant to South Africa then it will have to

bear the consequences".

Police are taking the threat seriously. Previous targets have included several firms trading with the Soviet Union and the communist bloc, firms dealing with rightwing dictatorships in South America and a branch of the Rothschild Bank in Paris.

The Soviet ambassador here last month requested special police protection for his diplomats.

The movement's 14 previous explosions were all carried out just before dawn, usually on Sundays when nobody was about. So far there have been no casualties.

Police believe the movement is composed of militant anarchists who have clearly been given special training to carry out sophisticated explosive attacks.

South Africa has so far not asked firms to tender for a second nuclear power plant but in the past four weeks the French Press has reported a split in the French Cabinet over such a deal worth R2 000 million.

All systems go for oil search off Durban

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Mercury 29/12/82

Mercury Reporter

A FULL staff complement has been hired and logistical planning completed for the start of extensive oil-drilling operations about 20 km north-east of Durban, Soekor's general manager, Dr Piet van Zyl, announced yesterday.

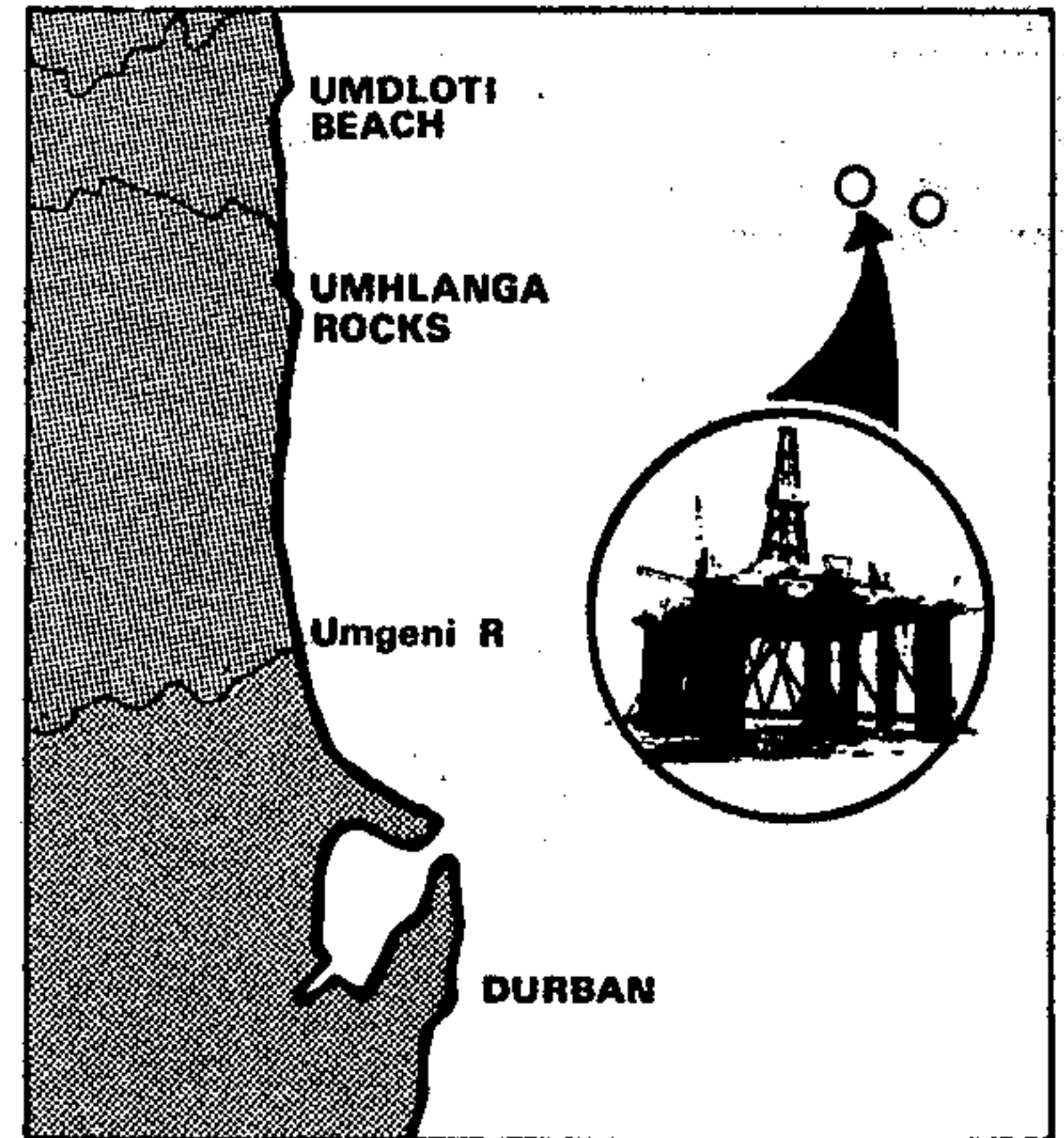
He was optimistic that operations would result in a 'find', but said this was self-evident in that such a massive investment would not otherwise be warranted.

Indications of sea-bed deposits off the city's coastline had been known about for some time, but had not hitherto been fully investigated because a rig for drilling was not available.

It would have cost at least R3 000 000 to move Soekor's other rig from its present Mossel Bay location and final costs of the Durban undertaking, taking the full contract price of the rig Actinia into account, could amount to R100 million.

Dr van Zyl said work would begin within days of the Actinia's expected arrival from Japan in February. Two holes would be sunk a few kilometres apart.

More than 80 men would make the rig their home for the minimal three-month period — and they would 'obviously be there quite a lot longer' if true deposits or other encouraging results were found.



THE approximate location of the two wells to be sunk by Soekor's new oil rig, Actinia.

The availability of good source rock and improved drilling techniques, as well as Soekor's recent successes, had created a favourable climate for oil discoveries.

However, wells would need to yield at least 20 000 barrels of oil a day, with reserves to last at least 15 years, to be considered economically viable.

Moved

Durban, being the country's largest port and near the Richards Bay-Reef pipeline, was the ideal place for an oil discovery — 'in fact from our point of view, there could not be a better site', he said.

If nothing materialised the rig would be moved to Port Elizabeth.

Arrangements had been made for regular air and sea shuttles between the city and the rig.

Dr van Zyl said it was unlikely that even a significant oil find would result in a drop in fuel prices, but South Africa would save large amounts in foreign exchange.