ASBESTOS IN SOUTH AFRICA

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Introduction:

Health of workers in South Africa has always been neglected. They are subjected to poor living conditions with little or no sanitation, low wages, overcrowding and are often unable to buy good food. All this contributes to disease among working people in South Africa.

A big factor which undermines the health of workers is poor working conditions. People are exposed to poisons, dangerous dusts, chemicals and unguarded machinery. They have too few breaks at work, and work very long hours. Accidents occur frequently claiming lives and limbs. Disease and disability at work has been neglected for a long time.

Capitalists set up factories with the express purpose of making profit. They need to protect the worker only to the extent that he/she can carry on working. In a situation where there is vast unemployment workers are easily replaced. Safety equipment, machinery guards and safe processes are all expensive to the capitalist and decrease his profit. Thus it can be seen that because profit is the main object and numerous workers are readily available measures to protect the health of workers are neglected.

Asbestos is one type of material which workers are exposed to which causes severe disability and even death. This paper attempts to discuss asbestos in South Africa, how it effects workers and their families and why the situation continues to exist.

What is Asbestos?

Asbestos is a type of non-metallic mineral rock that splits into fine fibres when processed. There are two groups :

Serpentine Group:

Chrysotile falls under this group - also called white asbestos, it is used for textile manufacture, brake linings, clutch facings, boards, insulation products and asbestos cement products. In South Africa this is found near Barberton and is mined by Kaapsehoop Asbestos, Stella mine and Beatrice mine and mill.

Amphibole Group:

a. Crocidolite - also called blue asbestos. It is very strong and is acid resistant. The longer fibres are used for heat insulation (lagging), acid resistant packings and battery boxes, gaskets and gasmark fitters. The shorter fibres are used in asbestos cement pipes. South Africa is the main world producer of blue asbestos. The mines are owned mainly by General Mining, Barlow Rand and Everite, and are situated in the northern Cape near Kuruman.

b. Amosite - also called brown asbestos. It is used for insulation in blankets, covers for heavy duty jet engines, and in lightweight board for partitions in ships. It is only found in South Africa, in the northern Transvaal.

In financial terms, for South Africa, asbestos is the second most important non-metallic mineral mined (after coal). 95% of sales were in foreign countries and thus very important in earning foreign exchange for South Africa. Export sales of all asbestos in 1978 were valued at R107,48 million (Financial Mail 3-8-1979).

Manufactured Asbestos Products:

There are more than 3000 products containing asbestos. Some common ones are :-

- Asbestos cement products (about 70% of the world's asbestos is used for asbestos cement). These are building material such as asbestos cement roofing, tiles, boards, gutters, sewerage and other heavy duty pipes.
- Paper, felts, yarn used to insulate roofs and cover pipes.
- Friction materials for brake linings and clutch facings.

The finished products containing asbestos range from heaters to hairdryers.

The companies which produce asbestos cement are also the major raw material producers, i.e. Everite and General Mining.

Because the factories are owned by the same people who mine the raw materials, it means that substitutes for asbestos in these products are likely to be resisted by these factories - they need a place to have their raw materials processed, and their factories assure them a market for the asbestos mined. There are a number of similar materials which could be

substituted, e.g. ceramic foam (1). However these substances although apparently safer than asbestos have not been fully tested yet and one needs to be wary of them.

Diseases related to Asbestos.

1. Asbestosis - in this disease the lungs or the linings of the lungs are scarred,by asbestos fibres inhaled from the air. When the lung is scarred it does not function as well as it should. Depending on the amount of damage the person may have difficulty in breatning especially when exercising.

   The fibres remain in the lung and can continue to cause more and more damage even if the person is no longer exposed to asbestos dust (2).

   This lung damage may eventually result in heart failure if the exposure has been heavy enough.

   If only the linings of the lungs are scarred (pleural asbestosis) the person will not feel breathless. Only special tests like X-Rays will show up the damage.

   It has been found that between 20% and 50% of people with asbestosis die of lung cancer or mesothelisma (6).

2. Lung Cancer - in the 1950's it was shown that a person exposed to asbestos has a 9 times greater chance of getting lung cancer than a similar person who is not exposed.

3. Mesothelioma - this is a type of cancer of the lining of the lung and sometimes the lining of the abdomen. It was found that mesothelioma is much more common in people exposed to asbestos (not only people who work with it but who live near mines and whose families work with it),than in the general population. In fact it is virtually unknown, except associated with asbestos (3).

   The lung cancer and the mesothelioma can take between 15 and 30 years to develop. Both these cancers are fatal within a short time, most people die within five years of diagnosis.

People exposed to Asbestos in South Africa.

The amount of people exposed is very difficult to estimate. One can work out how many people work directly with asbestos: in 31 mines,21 665 workers (4). In 1976 the Erasmus Commission of enquiry into occupational health reported a total of 6000 workers employed at 34 different factories in South Africa

manufacturing and using asbestos as one of the materials.

The number however of those exposed while mixing and using insulation compounds, doing building work, working with asbestos textiles, repairing brakes and clutches is unknown. It is also very difficult to know how much exposure these people get.

There are other ways of being exposed to asbestos too :-

Environmental Exposure: 35% of household members of families of asbestos exposed workers have been found to have x-ray changes of the lung, i.e. asbestosis (there is also an increased incidence of mesotheliomia.)

People who live in the vicinity of asbestos factories and mines have higher rates of mesothelioma than the general population. In a series of 100 cases of mesothelioma in South Africa, almost all were corrected with the area of the Western Cape Asbestos fields. In some cases exposure was only for a period of days or weeks (5,6).

Construction, demolition work, wear and tear leading to disintegration of asbestos products in buildings may expose people. Many roofs in South Africa are made from asbestos cement.

Mining for other materials may be in contaminated rock resulting in the exposure of these miners and the general public.

Household goods such as toasters and hairdryers emit small quantities of asbestos fibres - these may be a source of contamination in the home.

The result of asbestos use in South Africa.

In South Africa asbestos is an important earner of foreign exchange. South Africa produces 5 of the world production of asbestos, and is the only country which produces blue and brown asbestos.

SOUTH AFRICA'S ROLE IN WESTERN WORLD MINERAL SUPPLY						
MINERAL COMMODITY	EXPORTS		PRODUCTION		RESERVES	
	RANK	%	RANK	%	RANK	%
Platinum group metals	1	91	1	91	1	89
Vermiculite (crude)	1	80	2	38	2	29
Vanadium (metal)	1	73	1	56	1	90
Gold (metal)	1	67	1	73	1	64
Manganese metal	1	67	1	55	—	—
Ferrochrome	1	58	1	33	—	—
Andalusite/Sillimanite	1	49	1	37	1	45
Diamonds (gem)	1	46	1	46	1	large
Chrome ore	1	40	1	51	1	84
Manganese ore	1	36	1	36	1	93
Ferromanganese	1	22	2	12	—	—
Fluorspar	2	21	1	13	1	46
Uranium (metal)	2	20	3	11	2	18
Zirconium (concentrate)	2	9	3	11	3	12
Titanium (ilmenite, rutile)	3	20	3	18	5	8
Asbestos (fibre)	3	12	3	10	2	8
Coal (bituminous, anthracite)	4	13	4	7	4	10
Antimony (metal)	6	7	2	20	2	18
Iron ore	7	5	7	5	6	6
Nickel (metal)	7	3	5	5	5	8
Copper (metal)	7	3	8	3	13	2
Tin (metal)	9	1	8	2	13	1

The results in South Africa of the use of asbestos can be seen from the mesothelioma register (1979) (7):

Total number of cases of mesothelioma = 712.

	% Total Cases:	% Composition of work-force in asbestos mines:
White	51,8	5%
African	28,0	92%
Coloured	20,0	3%

It can be seen that the above table must have excluded numerous cases of mesothelioma among Africans - 92% of the workforce but only 28% of the cases of mesothelioma. This is because there is no statutory follow up of miners after they have left the mines, poor facilities, and general unawareness in the medical profession of mesothelioma.

We can therefore assume that the total number of cases is more than 712. If one bears in mind that mesothelioma is rapidly fatal, this is an enormous number.

IO. In the 1978 report of the Medical Bureau for Occupational Diseases, the following figures were found :-

Total number of asbestosis cases certified in the preceeding year

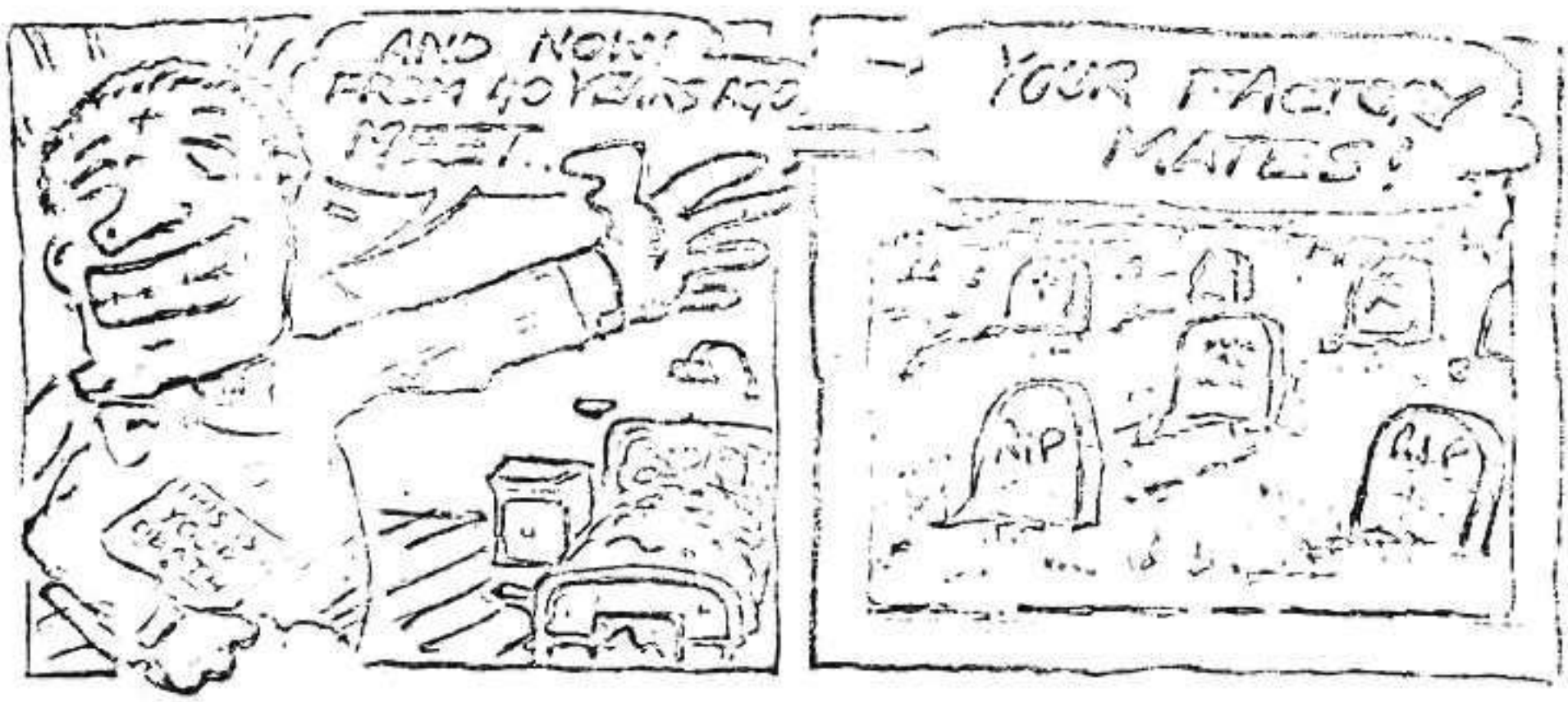
Whites - 241
Blacks - 323

If we consider again the fact that blacks make up 92% of the workforce, we must be forced to admit that the real figure for blacks must be much higher.

It should be noted that there are no unions for African mine workers. The African mine workers union was suppressed after a period of labour unrest in the 1940's. There are a number of white unions, the most important being the White Mine Workers' Union.

This is significant as the position of the asbestos industry and conditions at the workplace can be seen in terms of a conflict between the industry (managers), the workers in an organised form (union) and the state.

The roles played by these 3 parties is discussed below :-



Morgan and Seaton, *Occupational Lung Diseases*, Saunders, 1975

The Role of Management:

The asbestos industry is responsible for putting out a lot of information showing only the benefits of asbestos.

The South African Asbestos Producers Advisory Committee was set up especially for this.

The industry does research into the effects of asbestos on workers, research into the levels of asbestos fibre in the air which are safe. The industry also pays for research to be done by other people - either directly or indirectly - by giving money to research institutions. This "encourages" the researchers to see the asbestos problem from the industry's point of view. And if research does show excessive harm caused by asbestos it is not allowed to be published.

Genmin asbestos profits edge up

By Geoff Shuttleworth

The Genmin asbestos twins have both increased profits slightly for the June 30 ended quarter.

Msauli increased taxed profit to R864 000 from RS35 000 while Gefco rose to R1,2m from R934 000 This brings Gefco taxed profits for the year to date to R2,1m compared with R3.0m in the same period while in the case of Msauli it reflects a taxed profit of R1,7m (R1.8m).

The amount of dust in the air is measured as fibers per cubic centimeter of air. This measure is often inaccurate and although there has been a lot of research, the "safe" levels in various countries have not proved to be safe. The "safe" level has changed numerous times over the years.

3. Workers may be compensated for diseases they have acquired while working with asbestos. Although this is necessary it is obviously not the most desirable position - workers should not be exposed to these dangers in the first place. Money cannot compensate for lost life.

The Results of the Conflict in South Africa.

There are no statutory limits to levels of exposure on mines, factories, or in the local environment.

Mines: There has been a reduction in dust levels on the mines, but the levels at the moment are still very high.

Table 2:

Airborne Concentration of Asbestos.

Fibres per cubic centimeter.

Years:	Crocidolite (Cape):		Amostite(Tvl):		Chrysotile:	
	Surface:	Underground:	Surface:	Underground:	Surface	Underground:
1940-45	430	23	234	7	17	1
1970-71	12	4	40	2	7	5
1976-77	6	2	7	3	4	5
1971(England) *	0,2		2,0		2,0	

* Recommended Levels.

This can be seen as a result of a weak and divided labour situation with uneven organisations of mine labour as a whole (even though whites are better organised they are still exposed to dangerous levels).

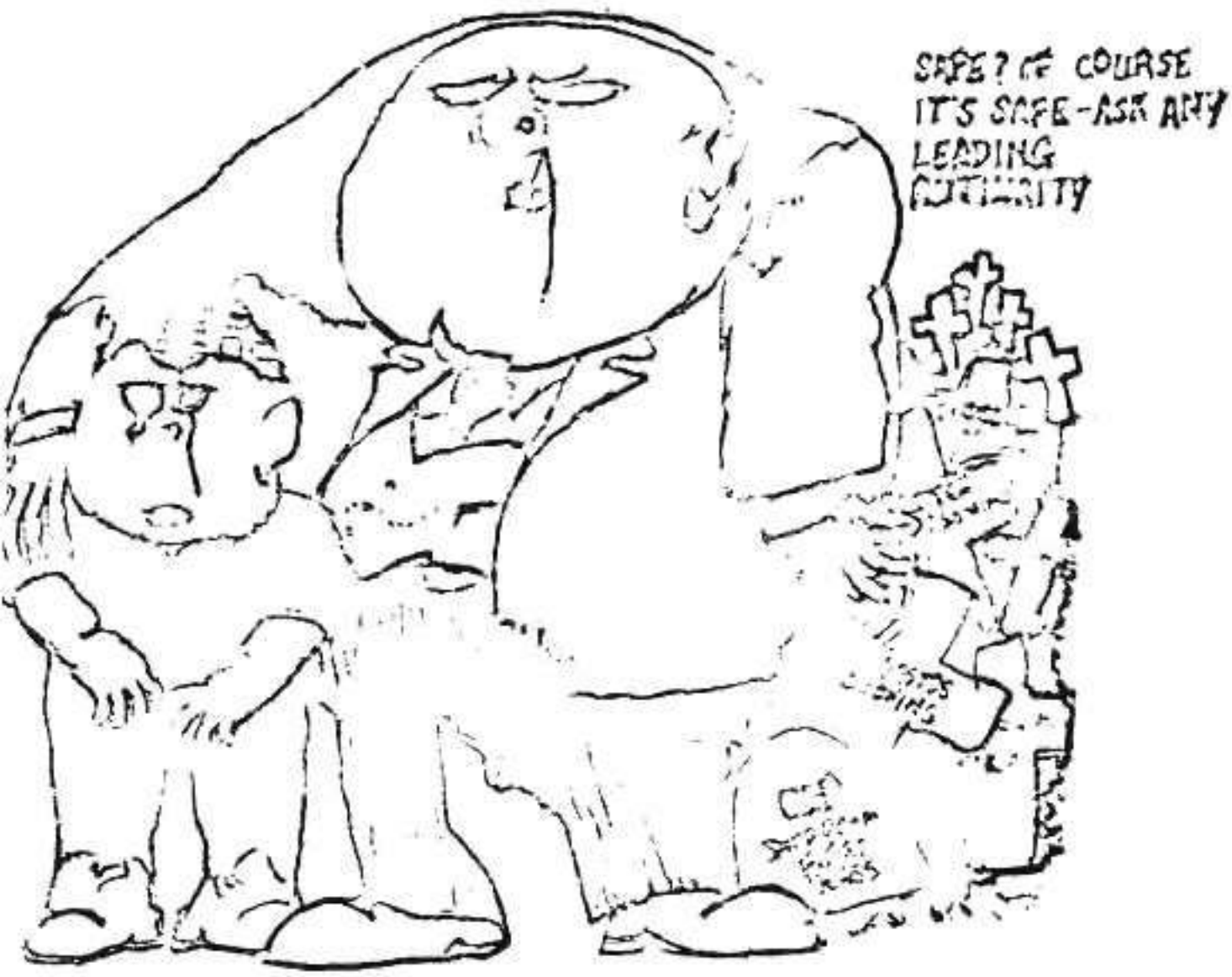
Manufacture:

The asbestos manufacture falls under the Atmospheric Pollution prevention act. An air pollution control officer with the factory owner decide on a level of asbestos fibres in the air.

Management has largely the support of the state as profits are seen to be in the national interest. The industry provides employment for numerous workers also seen to be in the national interest (albeit dangerous employment).

When pressure is put on industry to decrease levels of asbestos in the air or to increase other safety measures - the industry brings out these arguments.

When all arguments and pressures fail management can then transfer production from areas of strict health regulations to areas where they are not strict. This is usually relatively easy as the companies are usually international.

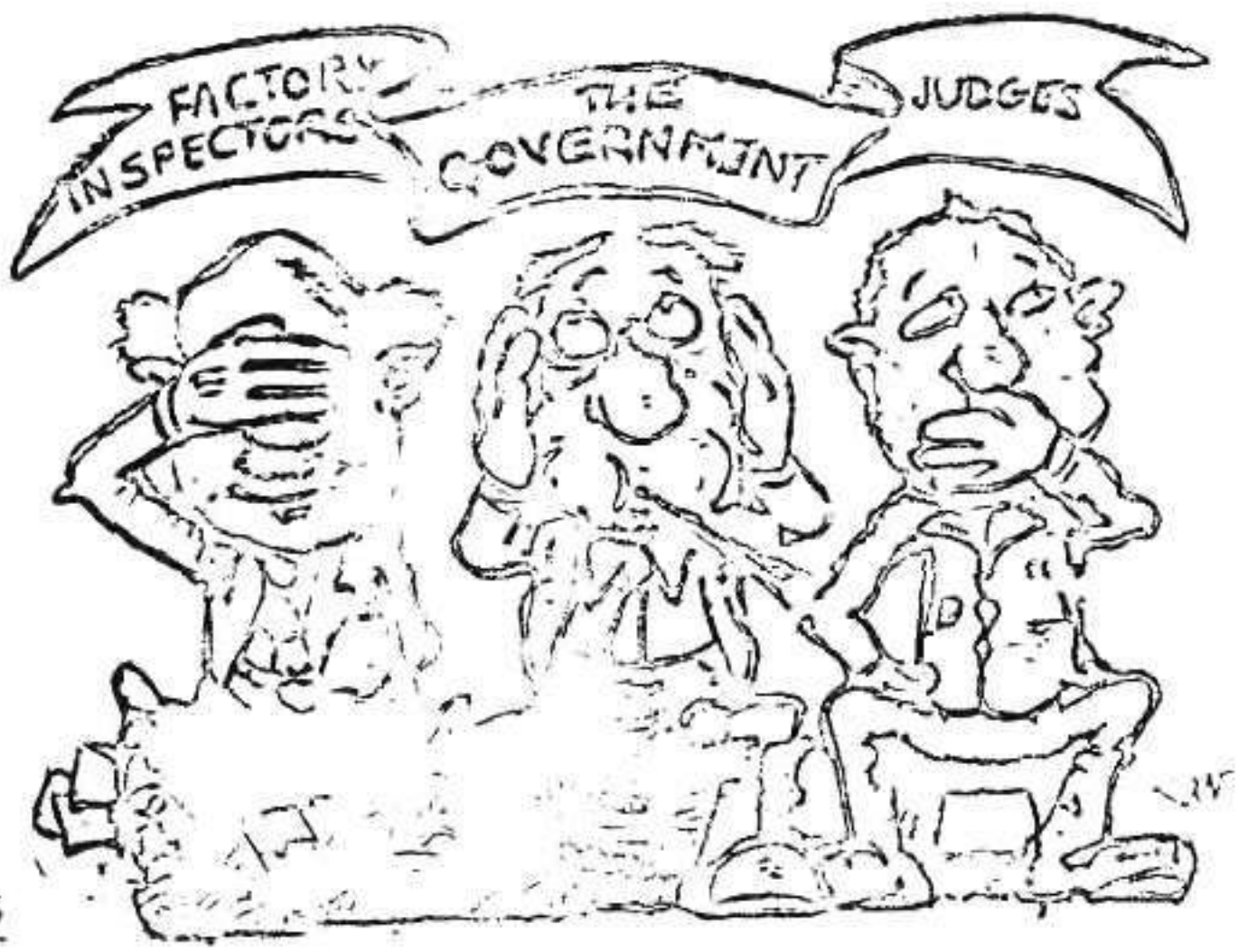


Health, vol 3, [illegible]

The Role of the State:

Some of the State's functions are to maintain production and national unity. The state having to maintain production will therefore tend to support management. It does this in various ways: management representatives are often included in state research bodies; some countries have legislation which prevents workers finding out the results of an inspection of their factory.

The State also polices the safety regulations by means of factory inspectors. In 1975 in South Africa there were only 29 inspectors for occupational safety covering 30097 factories. The inspectors could not possibly see even a small proportion of these.



The Role of the Unions

The labour movement has rarely the power or the finances to compete with industry and the state. However where there is a strongly organised movement it has been increasingly successful. Pressure from these labour movements has resulted in "safe levels" of asbestos in the air being progressively revised.

It is obvious that where there are no forms of labour organisation the position of the individual exposed is very dangerous and the chances of intervention minimal.

There are 3 possible results of the conflict.

1. The substitution of asbestos by other materials and eventually banning the use of asbestos because of its danger to health.

2. Preventing excessive exposure by keeping down the levels of dust in the air which workers breathe, by using methods such as vacuum extractors.

Taken into account is the cost to industry of reducing fibre levels, thus one can see that the levels are very arbitary, a' the levels are monitored by the factory owner; subjected to inspection. There is however one inspector in the Cape for a area stretching from Okiep to Port Elizabeth. What is striking is that the setting of safe levels is left to the discret of the inspectors, that there are very few inspectors and thus the monitoring is left to the factory management.

In other countries the work situation is quite different, especially in countries where labour organisation is strong.

United Kingdom:

The safe levels of asbestos are statutory; for chrysotile the safe level is 2f/cc, for crocidolite (blue asbestos) the level is 0,2f/cc which has resulted in an effective ban on its use since 1971. The Trade Union Council in the United Kingdom is pushing for a total ban on asbestos.

The Advisory Committee on asbestos set up on 1976 by the U.K. government has recommended that the legal limit be reduced to 1 f/cc for chrysotile, o,5f/cc for amosite and that the use of blue asbestos be formally banned. It also says that there is no safe level for asbestos and that substitutes should be used wherever possible.

Sweden:

Sweden banned blue asbestos in 1976 and instituted a ban on working with asbestos cement products at the same time. In May 1979 a total ban on all asbestos containing products were instituted.

U.S.A.

The U.S.A. has a standard of 2 f/cc for all types of asbestos. The National Cancer Institute and National Institute for Environmental Health Services state in a report that 20-25% of peopleheavily exposed to asbestos die of lung cancer. 7-10% die of mesotheliama and 8-10% die of cancer of the gastrointestinal tract.

CONCLUSION:

Asbestos is mined and used in manufacturing under conditions which are dangerous to all the workers involved, and which would be totally unacceptable in most other countries.

There is virtually no protective legislation for workers, and although there is workmen's compensation, there has been very

Asbestos ruling by EEC

BRUSSELS. — EEC governments have agreed to introduce legislation within four years requiring compulsory health surveillance of workers exposed to asbestos and lead.

At the same time, EEC ministers responsible for employment and social affairs, undertook to introduce regulations within three years which would ensure that workers exposed to five substances are told about their hazards. They are cadmium, mercury, arsenic, asbestos and lead.

The adoption of a draft directive covering health surveillance and warnings means that each member state will undertake to meet the agreed standards through national legislation within the specified period. Originally, the European Commission proposed an 18-month deadline for introducing the monitoring of workers' health after contact with asbestos and lead, but the UK, supported by Ireland, insisted on longer.

Not all states will have to take action on the provision of information on the five dangerous substances because the UK, for example, already requires employers to pass on such information.

Responding to several months of pressure from European unions, the ministers also adopted a long resolution on "guidelines for a Community labour market". In essence this amounts to little more than agreement on what a labour market policy should be in terms of providing training and matching job seekers with available employment. — Financial Times.

— WORKERS STRUGGLING TO SURVIVE OFTEN HAVE NO CHOICE

little attempt to prevent the asbestos related diseases in South Africa.

The asbestos industry, aided by the state, maintain the unhealthy conditions as they are. Change will only occur if workers organise themselves and fight together for their rights.

Workers need to organise themselves into unions which will represent the needs of all the workers. In this way workers can have some say in their work situation, and enter the conflict (management-union-state) from a much stronger position. If a worker or small group of workers enter the conflict alone they will easily be crushed, this is why good organisation among workers is necessary. Once there is good organisation workers (unions) can demand better working conditions, lower asbestos levels, safety equipment, etc.

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