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# Poisonings at Thor Chemicals

*CWIU-Durban*

It has been over two years since the Chemical Workers Industrial Union (CWIU), together with Earthlife Africa and residents living near Thor Chemicals at Cato Ridge protested outside the company premises to highlight the dangers of mercury poisoning. In 1992 the company hit the headlines again after a number of former employees were diagnosed with organic mercury poisoning. It was also found that employees had mercury in urine levels way above internationally accepted standards.

## **Thor exposed Poisoning of the Mngeweni River**

The Thor Chemicals Plant is situated in Natal at the source of a stream which runs into the Mngeweni River. Two kilometres downstream, the Mngeweni River flows through Fredville, a populated area of Kwazulu. Here residents use the river on a daily basis for washing of clothes and cooking utensils, and for swimming.

The alarm was raised in the area during 1990 when three independent investigations revealed alarmingly high deposits of mercury at the source of the Mngeweni.

Thor Chemicals responded by calling into question the validity of the reports. They accept that mercury deposits are in the sediment and soil, but claim that they do not pose a threat to anyone. This is not true. Not only is the soil itself poisonous, but there is a potential risk that mercury compounds could turn into organic mercury, dissolve into the water and poison those further downstream.

## **Workers poisoned**

After the protests in 1990, workers at Thor began to join CWIU. The union secured the assistance of the Industrial Health Unit (IHU) from the University of Natal to assist in monitoring workers health at the plant. The results

of these investigations and subsequent developments revealed just how dangerous it is to work at the plant.

The company's own records revealed that 32 of 36 workers had more mercury in their urine than the internationally accepted "safe" standard set by the World Health Organization (WHO) of 50mg per litre. The company believes that 200mg per litre is a safe level.

The public were only really alerted to the issue when in February 1992 former employees at Thor were found to be seriously poisoned. Eric Mkhize, whose job at Thor was to feed the incinerator furnace with imported wastes said that he was forced to resign when he went "mad" handing out money to everyone and playing with imaginary toys. "They made me sign a form to resign otherwise they said they would fire me and give me no reference. This way they said I would get a good reference and could find a job somewhere else".

Four other workers all displayed typical signs of acute mercury poisoning such as painful bleeding gums, and recurrent nose bleeds while working at Thor. While these ex-employees were being treated the union discovered that a further 3 ex-employees had been admitted to King Edward VIII Hospital with mercury poisoning. They had left the company in early 1992 and their condition was more serious.

Peter Cele and Engelbrecht Ngcobo are in a coma, still deteriorating and have little chance of recovery. Another ex-employee, Albert Dlamini shows little sign of recovering fully. He has improved and has gone home. However, he has to receive physiotherapy on a regular basis. He can walk with assistance but the damage is permanent.

All three workers were casuals in the same section of the mercuric acetate plant. This section of the plant was closed down in mid-January, 1992. The company has announced that it does not intend reopening the mercuric acetate section. It is highly problematic that workers were employed as casuals in what was obviously a highly dangerous sector of the plant.

## **Company agrees to Independent Enquiry**

Constant pressure from the union, coupled with widespread media coverage, forced the company to sign an agreement with CWIU in March 1992 in which they agreed to supply the union with a range of information and allow a site inspection and full medical investigation coordinated by Professor Tony Davies of the National Centre for Occupational Health. The

enquiry was to look for the sources of the suspected mercury poisoning and present recommendations for ongoing employees health monitoring.

The final report by Professor Davies released in April 1992 is significant in that it represents an authoritative inquiry into the possible causes of the mercury poisoning. It puts paid to management's "astonished" response when the first cases of mercury poisoning were revealed by CWIU and the Industrial Health Unit (IHU).

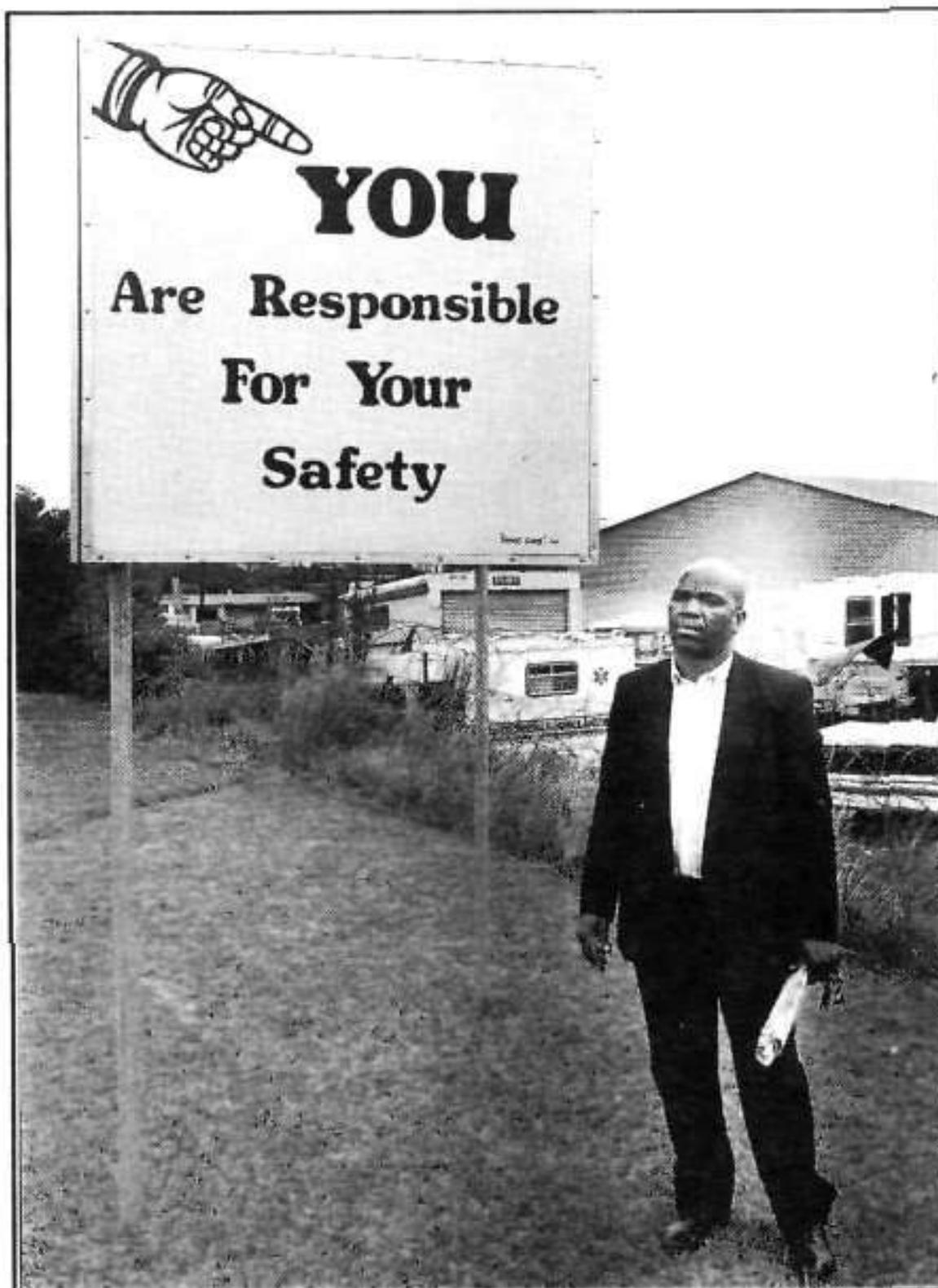
The report is important for health workers in South Africa as it documents some of the widespread abuses that have become everyday practices within a large number of South African and multinational companies. It also identifies ways in which some of these practices can be rectified. In addition to placing the responsibility for the poisonings at Thor's door, the report also notes that the lack of adequate health facilities to deal with occupational diseases and the government's failure to provide the necessary infrastructure, reasons for the inability to prevent such cases of gross negligence.

Whilst the report deals specifically with a number of problems at Thor Chemicals, its impact and recommendations go beyond this case. The report recognizes that the case of Thor Chemicals is not isolated from a range of social and political factors within the South African society.

## **Findings of Enquiry into Thor Chemicals Occupational Health**

Professor Davies identifies that there is a dire absence of health (as opposed to safety) legislation and regulation which could provide an effective backdrop to regulating health standards. This is especially the case with the Machinery and Occupational Safety Act (MOSA) 6 of 1983.

The report calls for an urgent commission of enquiry into occupational health with a special emphasis on redressing the imbalance between the laws which exist, and the consequent difficulties which factory inspectors face in regulating environmental conditions in the workplace. The report also recommends that medical inspectors of factories should be urgently designated in each health region by the Department of Manpower in consultation with organized workers and other experts in the field.



There is an absence of health as opposed to safety legislation which makes it difficult to monitor conditions at the workplace. *Photo: Rafe Mayet*

## **Widespread contamination at Thor Chemicals**

The report finds that there is no formal induction training at the plant and as a result work practices may have added to the possibilities of contami-

nation at the plant. The inspection revealed that there is ample evidence of widespread contamination of the plant and its surroundings with mercury and its compounds.

### **No proper sampling**

The report notes that the sampling methods used were insufficient. In sampling, both the method, and the sampling site are crucial to ensure that it is representative of actual conditions. The failure of the company to monitor appropriately has made it impossible to estimate the actual exposure of any worker anywhere in the works. It recommends the urgent and consistent implementation of appropriate sampling strategy.

### **No effective use of protective clothing**

Professor Davies remarks that the use of protective clothing should be used as a last resort only. The use of such personal protective clothing carries a very high risk. In addition to this, at Thor Chemicals, much of the respiratory equipment used until recently has been disposed of. There was very little evidence that a respiratory protection programme was effectively organized and managed. This, the report recommends, is very urgently needed.

### **Poor medical surveillance of workers**

The report asserts that workers who are presently suffering from mercury poisoning must have been poisoned while working at Thor with absorption taking place primarily through the respiratory tract; but skin and alimentary tract absorption are not discounted.

Because all estimations of mercury in urine levels were carried out in-house, with no evidence of an internal or external quality programme, there must be reservations about the reliability of the monitoring strategy. Degrees of variation, and fluctuations in levels over short periods of time reveal that the methods being used were unacceptable. This made it impossible to follow any trends with confidence and therefore, the surveillance methods do not accurately reflect the threat to health.

There are also problems with using only mercury in urine level tests for estimating inorganic exposure. Testing mercury in blood levels is the

effective way of estimating exposure to organic mercury. Past employees have been found to be suffering from organic mercury poisoning, which could not have been picked up by testing mercury in urine levels.

The report recommends systematic biological monitoring of workers through simultaneous blood and urine measurements.

## Cases of mercury poisoning

Professor Davies gives his view of how the poisoning occurred at the plant. Casual labourers were recruited into a hazardous situation without adequate formal training. The protective equipment they were using failed to prevent the rapid accumulation of a large amount of mercury and the various compounds produced at the plant.

The report continues that with the present overload of health services, it is essential that occupational diseases should be kept to a minimum. The whole episode at Thor Chemicals reveals, once again, that the majority of occupational diseases are not treatable, and once there has been excessive exposure, a progressive disease process might easily be



The report vindicates CWIUs view that leaving the health of workers and communities in the hands of management is inadequate. *Photo: Cedric Nunn*

set in motion.

Professor Davies claims that the proof is almost absolute that occupational exposure at Thor was the cause of the cases of mercury poisoning.

## **More Worker Control over Occupational Health**

The results of the investigation are encouraging in that they highlight some of the common problems facing workers involved in dangerous industries, and managements failure to seriously consider their health. The Thor case vindicates CWIU's view that leaving the health of workers and their communities in the hands of management is totally inadequate. Companies cannot be trusted to maintain proper health and safety standards when it is going to result in a slight cut in profits.

The report correctly points out that empowering workers and their organisations is the only way to address companies "profits at all costs" attitude.

"The Chemical Workers Industrial Union have played a key role and must be complimented for their determination. Under prevailing conditions in this country they have had to publicize the matter via the media. It is unfortunate that their first statements were not taken seriously. The most constructive outcome, I suggest, from this tragic situation is that management and government departments should in future listen carefully to what is being said by workers through their union structures and be prepared to discuss the matters raised in detail" - Professor JCA Davies: *Minimising Risks to Health in the Chemical Industry - an inquiry to the extent and causes of mercury related illness among workers at Thor Chemicals*; 15.4.92.

Similarly, the Department of Manpower cannot be trusted to adequately police companies. Companies are given a free hand to operate under exemptions obtained from the Department as a mere formality. No attempt is made to canvass union positions, or check the validity of company medical records. The situation is scandalous where there is often a high level of collaboration between companies and their doctors. In the case of Thor, the company relied on general practitioners who obviously were not qualified to deal with mercury poisoning. Under a system of mutual trust and responsibility, workers ought to have the right to appoint company doctors.

Multinationals in particular need special attention when they operate in developing countries. The importation of toxic wastes and carrying out of dangerous processes, outlawed or performed under strict control in the parent country, are carried out under the guise of providing jobs and investment. There are no obligations or regulations to ensure that proper standards and safety requirements are imparted. The total disregard for workers' rights to know and be informed is also alarming when companies, which clearly know better, choose to use inferior technology and exploit unorganized worker

## Thor Unrepentant

Thor's response to the enquiry has been to permanently shut down its dangerous operations (mercuric acetate plant) and unilaterally retrench 15 workers. Under South African law the company is required to merely consult with the worker representatives. This has been translated by the company as calling in the workers to a meeting and informing them of the company's intentions with no intention of entering into genuine negotiations whatsoever with the union. The retrenchments are at present the basis for a case in the Industrial Court. Worse still, the retrenched workers have not had proper medical testing or screening to establish whether they are suffering from poisoning in any way.

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