

# **ACTU HEALTH AND SAFETY POLICY: CHEMICAL HAZARDS**

## **(Originally adopted by ACTU Executive May 1983, revised ACTU Executive March 1989)**

1. The ACTU recognises that chemicals in the workplace constitute a major source of occupational injury and disease. Most chemical products have been and continue to be introduced into the workplace with minimal pre-testing to check for their likely health effects on humans. Indeed in many instances workers have been used as guinea pigs in establishing connections between chemical exposure and disease, as for example, between:

- \* vinyl chloride monomer and cancer of the liver and brain;
- \* carbon disulphide and heart disease;
- \* dibromochloropropane and sterility;
- \* benzidine and bladder cancer;
- \* toluene di-isocyanate and asthma;
- \* benzene and leukaemia;
- \* dioxin-contaminated substances

(e.g. 245-T, Pentachlorophenol) and birth deformities, chloracne and cancer,

and continue to be used as guinea pigs in other industries.

Chemicals pose hazards in that they can be:

- \* corrosive;
- \* irritant;
- \* sensitising;
- \* flammable and explosive, and
- \* toxic.

It is the toxic effects of chemicals which are the most insidious, for they can express themselves in many and varied ways, in organs far from the site of absorption, and sometimes, as in the case of cancer, many years after exposure.

Chemicals in Australian workplaces are still largely unregulated. New chemicals are allowed into workplaces without the suppliers being legally required to carry out any pre-testing, nor to supply the results of tests which have been carried out. A federal notification procedure introduced in October 1981 is largely ineffective, since it is voluntary only, and subject to major exemptions, and secretive and compliant in its demands, and largely underfunded.

Control limits for exposure of workers to existing chemicals, as laid down in the NH&MRC Occupational Health Guide Threshold Limit Values are voluntary only, and have not been adopted as statutory obligations in any State. Controls over especially hazardous materials, such as cancer agents, reproductive hazards and sensitisers, are again minimal.

Under these circumstances the ACTU calls on affiliates to step into this regulatory vacuum and take bold initiatives to protect their members from the occupation hazards of chemicals.

2. New chemicals are coming on to the market world-wide at the rate of 1,000 to 2,000 per year, and many of these materials are being introduced into Australia. ACTU affiliates should focus their efforts to control chemical hazards on these new chemicals, to ensure that they be adequately tested prior to their introduction. Experience teaches that chemicals should be assumed to be hazardous until shown to be otherwise. Reliance on laboratory assays and short-term tests to predict likely long-term effects on health is essential. It is unacceptable to rely on the monitoring of exposed human populations as the only means of identifying hazardous substances - although public health monitoring has an important role to play as a back-up to adequate screening procedures.

New chemicals should be submitted to a battery of toxicological tests including;

- \* tests for short-term (acute) effects;

- \* tests for mutagenicity and other serious effects, in bacteria, fruit flies etc;
- \* tests for cancer in lifetime animal bioassays, and
- \* tests for reproductive effects in multiple generation animal bioassays.

Tests should be conducted humanely, and in strict accordance with animal testing guidelines.

Affiliates should insist that the results of these be made available to members prior to a new chemical being introduced into a workplace. If these data are not made available, then affiliates should take steps to prevent the chemical concerned from being used.

Depending on the results of the toxicity tests, procedures for labelling the new chemical; for handling it; for coping with emergencies; for monitoring its environmental concentrations (if relevant); should all be agreed prior to its introduction.

Research and toxicological testing poses special problems, and should not be conducted at the expense of the health of research or laboratory staff. Codes of practice to cover these workers are essential.

3(a). Existing chemical products in Australian workplaces have never been counted, but they are likely to number in excess of 20,000. Affiliates should insist on their members' right to know the details of chemical composition of these products, and the known or suspected health hazards associated with these constituents (where anything is known at all).

In the absence of such information, appropriate safe working procedures cannot be developed and implemented. Thus in the interests of health and safety, substances and chemical products for which inadequate information is provided to members, must be considered potentially harmful to workers' health and safety.

Affiliates should press for the drawing up of Registers of chemicals in use in each workplace, with the following information being recorded for each product as a minimum requirement:

- \* Trade name, or serial number of product as adopted in the workplace;
- \* Chemical ingredients in the product, and their proportions;
- \* Physical and chemical properties of the product;
- \* Health and safety hazards of the product, both long-term and short-term, including health or medical conditions which may increase susceptibility to hazards;
- \* Standards (both Australian and overseas) and regulations applying to the product;
- \* Recommended workplace environmental monitoring procedures (if appropriate);
- \* Necessary health and medical monitoring procedures (where appropriate);
- \* Ventilation requirements, and any special precautions to be taken in handling the product;
- \* Safe disposal procedures and applicable regulations;
- \* First aid and emergency (spillage and leakage) procedures;
- \* Name, address and telephone number of supplier, and

\* Name and designation of person compiling this information.

The Register should be compiled in co-ordination with the local joint health and safety committee or union health and safety representative.

Copies of the register should be prominently displayed in the workplace, and be available in the Health Centre.

A deadline should be set for this information to be collected and new products should not be introduced without the information.

### 3 (b). Material Safety Data Sheets (MSDSs)

MSDSs are an important mechanism in providing information on known health and safety hazards associated with chemicals and chemical products and are useful in the development of workplace registers of chemicals.

The ACTU has contributed significantly to the national standard which lays down what a Material Safety Data Sheet must contain. This publication is available from Worksafe Australia and is entitled 'Guidance Note for Completion of a Material Safety Data Sheet'.

Accordingly, the ACTU calls for the provision of MSDSs conforming as a minimum standard to the Worksafe Guidance Note on MSDS for all substances.

Affiliates should insist that their members have ready access to conforming MSDSs for all substances used in their workplace.

Affiliates should seek to ensure that any substance or chemical product for use in the workplace shall not be handled or used by members unless supplied with MSDSs conforming to the latest edition of Worksafe Australia Guidance Note on MSDSs, as minimum standard.

4. Control of chemicals in the workplace should be according to the following hierarchy of priorities:

- a) Elimination of the most toxic materials, or refusal to allow their introduction.
- b) Substitution of hazardous materials by less hazardous ones.
- c) Containment, or total enclosure of toxic processes or substances.
- d) Adoption of safe handling procedures.
- e) Exhaust ventilation, using efficient hoods, ducting, filters, and fume cupboards, and noise-controlled fans or suction devices.
- f) Environmental monitoring - fixed point, grab sampling and/or personal monitoring - should always accompany containment and ventilation control measures, to monitor their effectiveness.
- g) Protective clothing and equipment (but subject to the controls listed below).
- h) Administrative procedures, such as limiting time of exposure, and job rotation.
- i) Health and medical monitoring of individuals who are required to wear protective gear or are the subjects of administrative procedures for limiting exposure, to monitor the effectiveness of these measures.

5. Use of protective clothing and equipment should be seen as a last resort in the control of chemical hazards, for it contradicts the fundamental trade union principle that the workplace should be adapted to the worker, and not the worker to the workplace. Protective gear should only be agreed to by affiliates as part of a comprehensive package, including the following points:

- a) A particular management representative should take full responsibility for all aspects of the protective gear package, and identify the responsibilities of other representatives.

- b) All management representatives responsible for the personal protection programme should receive training that is adequate to allow them to discharge those responsibilities
- c) Members should be trained in the safe fitting and use of protective gear.
- d) All protective clothing should be personally fitted and issued.
- e) All protective clothing and equipment purchased should be in conformity to Australian standards, and its use and maintenance should also be in conformity to relevant Australian standards.
- f) Items of protective clothing or equipment lost or damaged should be replaced immediately.
- g) No member should ever be charged for any item of protective clothing or equipment.
- h) No member should be required to clean or in any way maintain his or her own protective clothing or equipment. equipment should be cleaned and maintained by trained staff.
- i) Use of protective clothing or equipment should not in general be agreed to as a condition of employment
- j) Protective clothing or equipment is uncomfortable and sometimes hazardous, and so should always be used for short periods only. Paid rest breaks should be negotiated as part of a protective clothing package.
- k) Use of protective clothing or equipment should always be accompanied by a comprehensive programme of medical or biological monitoring to check that the individual really is being protected.

It is recognised that specific sections of industry have a requirement to use, wear and maintain specialised items of equipment.

6. Special procedures are needed for the control of especially toxic materials. Cancer agents present particular problems because:

- \* there is no known safe level of exposure;
- \* development of cancer can occur up to 40 years after exposure, and
- \* cancer is irreversible and normally fatal.

The ACTU recognises the schedule of substances having "sufficient evidence" of carcinogenicity, as published by the International Agency for Research on Cancer, as being an authoritative schedule of materials which must be regarded as posing a cancer risk to humans. The schedule is appended to this policy.

Affiliates are urged to check these schedules against the chemicals known to be in use in their workplaces. Where cancer agents are identified, affiliates should press for their complete removal and substitution by less hazardous materials. Failing this, affiliates should press for their total containment, or reduction of exposure to lowest technically feasible levels.

7. Health and medical monitoring of members exposed to chemical hazards should not be seen as a means of protection, nor as a means of identifying the materials they may be exposed to. Medical monitoring should be seen as a second line of defense only, offering a warning to susceptible individuals over and above the protection offered by control of chemicals at source and environmental monitoring of workplace air.

On the other hand, medical monitoring should be seen as the essential accompaniment of all control measures which are directed at the individual, such as use of protective clothing or equipment, or use of administrative measures. Baseline and ongoing health monitoring of the workforce in these cases is seen as valuable.

Where pre-employment medical screening exists, it is often used by management as a means to select only the "fittest" workers and to deny employment to others who may be less fit or more vulnerable but nevertheless have the right to work in a safe and healthy environment. Hence pre-employment medical screening should be restricted in scope, or eliminated altogether. Denial of employment to particular groups of members, such as pregnant women or women of "reproductive capacity", should be opposed under all circumstances.

8. In accordance with ACTU health and safety policy, affiliates should avoid negotiating danger money for members exposed to chemical hazards. In accordance with this present policy, affiliates should place primary emphasis on controlling the hazards at source.

#### Demands on Government

9. In support of the above policy, the ACTU calls on the Federal Government to establish:

1) A national chemicals licensing scheme, under the overall control of a tripartite committee that draws together representatives of employers and unions. There are clear Constitutional powers for the Federal government to control new chemicals in Australia, for the majority are imported from overseas, and are involved in interstate trade and commerce.

The chemicals licensing scheme should be constructed according to the following principles:

- \* all new substances should be put through a battery of short-term laboratory tests, and, until reliable alternatives can be developed, full life-time tests in animals to check for cancer and reproductive effects;
- \* only substances which pass these test should be licensed for use, subject to safeguards indicated by the results of the tests;
- \* labelling requirements and industrial hygiene and emergency and disposal procedures should all be worked out by the suppliers, in the light of the toxicity results;
- \* all data submitted should be subject to public review,

and

- \* data on all licensed materials should be brought together to form a registry of toxic effects of chemicals, to be mounted on a computer and made available to workers, employers and the public, free of charge, through terminals strategically located in libraries, government offices and community health centres.

"New substances" should be defined as those introduced after an inventory of existing chemicals has been established. Licensing requirements for the backlog of substances listed in this inventory should be introduced, according to hazard priorities.

- 2) A National Institute for Environmental and Occupational Health, to:
- a) commission and perform research into environmental and occupational health issues;
  - b) establish appropriate disease registers for monitoring the incidence of, and the environmental causation of, diseases in Australian society;

- c) act as a repository of health and safety information (including a computerised registry of chemicals and their toxic effects) to be made available free of charge to other government authorities, employers, unions, and the general public;
- d) prepare criteria documents and research particular topics in the preparation of general environmental and workplace standards; and
- e) contribute to the training of environmental and occupational health professionals.

The Institute should be governed by a tripartite council, and it could draw together existing expertise as well as create new expertise through its training programme.

- 3) Improved public health monitoring procedures, to establish current patterns of death and disease in the community, and to investigate their possible occupational origin through collection of good occupational histories of selected patients.

10. The ACTU calls on State governments to:

- a) Establish workplace licensing schemes to ensure that workplaces compile and maintain adequate chemicals registers, and design and maintain workplace conditions to reduce exposure to chemical hazards to a minimum;
- b) Place mandatory requirements on suppliers, manufacturers etc. of chemical products and substances to provide Material Safety Data Sheets (MSDSs) conforming to the Worksafe Australia Guidance Note on MSDS, as minimum standard;
- c) Adopt statutory control limits for exposure to chemicals, and to enforce these through carrying out comprehensive environmental monitoring in industry and prosecuting employers found to be in breach of the limits;
- d) Enact comprehensive occupational health and safety legislation and regulations which give health and safety delegates statutory rights to carry out chemical hazard inspections and to receive the information detailed above;
- e) Enact a statutory requirement for occupiers of buildings where chemicals are used and stored to display standard placards giving information such as the Hazchem code and other relevant codes needed by fire fighters and emergency personnel who have to deal with fires and other chemical emergencies at these buildings;
- f) Enact statutory requirements for packaging and labelling of all chemicals containers;
- g) Adopt the Australian Code for the Transport of Dangerous Goods by Road and Rail, as well as its future amendments, as a statutory requirement;
- h) Enact comprehensive systems for the licensing of vehicles carrying hazardous chemicals by road; for the designation of specific transport routes through urban areas; for the mandatory training by industry of heavy vehicle drivers, and for their licensing;

- i) Establish 24 hour emergency response computerised chemical data banks for the use of emergency personnel, and make it a mandatory requirement for industry to supply a chemical emergency telephone advice service;
- j) Establish a register of hazardous chemical wastes; designate special areas for the storage of intractable chemical wastes; introduce a licensing system for transporters and disposers of wastes; establish a comprehensive docketing system to track hazardous wastes from their generation through to disposal;
- k) Require licensed chemical waste operators to maintain permanent rather than casual staff; to provide the staff with full training facilities; offer them full protective gear; and make available to safety delegates details of all consignments being carried;
- l) Allocate specific responsibilities to different emergency services in the response to chemical emergencies; equip the fire services as frontline chemical emergency services; provide appropriate training and protective gear and decontamination facilities for the fire fighters; offer the fire services a preventive role by giving fire fighters access to all installations handling or storing hazardous chemicals; provide for the emergency service to be given access to chemical data supplied under the workplace licensing scheme; protect emergency service personnel from prosecution or civil action arising from any damage they may cause in the course of performing their duty; provide for the notification of all chemical incidents, accidents and emergencies, and for the recording of all such incidents in a publicly accessible register;
- m) Require all emergency services to compile a complete personnel attendance record for every incident involving hazardous chemicals;
- n) Review town planning guidelines to maintain a suitable degree of separation between industrial premises handling hazardous chemicals and land or premises used for residential or other purposes.