

THE COULTER CASE

On June 30 last year Coulter was retrenched from his job at the Institute of Medical and Veterinary Science (IMVS) in Adelaide, and the environmental mutagens testing unit which he headed was closed down. This case shows how scientists who speak out against corporate and bureaucratic vested interests can be stifled.

Coulter joined the IMVS in 1959 at 28, after practising general medicine for a few years.

During his time at the IMVS Coulter spoke out, in his private capacity, on numerous environmental and health issues, including uranium mining, water fluoridation, the proposed petro-chemical plant at Redcliff in SA, the consequences of nuclear weapons tests at Maralinga in the 50s, and the health hazards of drugs and industrial chemicals.

Quiet

Often Coulter has been willing to speak out when others with the same knowledge kept quiet. At one stage in the proposal for a petrochemical plant at Redcliff, it was planned to produce and export ethylene dichloride — a toxic intermediate product — rather than the usual final product polyvinyl chloride. The ethylene dichloride was to have been taken out of Spencer Gulf in 30,000 tonne tankers.

Coulter publicly pointed out that ethylene dichloride is highly toxic and a potential cause of cancer. Health commission staff were aware of this hazard, but said nothing, apparently feeling vulnerable because they were in a government department.

It is now accepted by the US National Cancer Institute that ethylene dichloride does cause cancer.

Epichlorohydrin is a bonding agent, one of numerous chemicals used in the pulp and paper industry. About two years ago, Coulter provided information to AMWSU workers at Mount Gambier about the health hazards of the chemical.

The workers knew what chemicals were being used in the manufacturing process, but could not obtain information about their hazards through normal channels.

In speaking out and advising of risks to health and environment, it is easy to offend corporate and government interests which have a financial or bureaucratic stake in products, practices or policies linked with the risks.

Research institutes such as the IMVS depend on government money provided through government bodies which are sensitive to corporate interests. The IMVS also receives some direct grants from corporations. As a result, those who speak out about risks to health and environment may experience pressures to keep quiet. This has happened to Coulter on several occasions.

Remarks

In 1978 the Bayer company brought a legal action against the ABC, partly due to remarks Coulter had made on a television programme regarding one of its products containing the mutation-causing pesticide dichlorvos. The action was subsequently dropped.

But Coulter was pressured through the Agricultural Chemical Trade Association and the director of the IMVS to keep quiet. Dichlorvos is currently under urgent review by the US National Cancer Institute, as some animal tests have suggested that it may cause cancer.

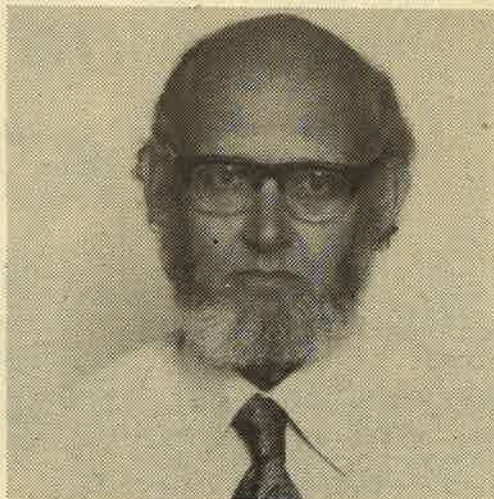
In 1979 Velsicol Australia

It's no surprise that Dr John Coulter's work has been unwelcome in the board rooms of chemical corporations and their allies in Government and science.

As a leading environmentalist in SA since the 50s his research, advice and public statements have helped people challenge health hazards on the job and in the community on several occasions.

But it has cost him dearly.

Brian Martin* reports on the case.



complained to the IMVS Director, about a lecture Coulter had given, in a private capacity, to a Melbourne seminar on pesticides.

Coulter had mentioned the way the parent company in the US had handled information on the capacity to cause cancer of two of their products, chlordane and heptachlor.

In the late 70s Coulter, on his own initiative, set up in the IMVS a unit for testing the capacity of substances to cause mutations — their mutagenic capacity. This environmental mutagens testing unit (EMTU) provided a cheap, quick and fairly reliable assessment of the cancer-initiating potential of substances.

The unit, which provided a routine service for the testing of chemicals, was the only one in SA and one of only three in Australia.

Workers

Some of the samples submitted for testing came from groups outside the scientific community, in particular from workers' health organisations. Coulter sometimes provided results directly to the groups or workers involved as well as to the IMVS. Such action escapes the control over scientific information normally held by the management in government scientific organisations.

A couple of years ago, workers who were coating steel pipes with pitch for the Engineering and Water Supply Department in SA were concerned about possible health risks from fumes.

Coulter investigated for the workers and found that levels of polycyclic hydrocarbons in the atmosphere were very high. Each 100 kilogrammes of pitch used in the coating process released 1.2 kilogrammes of benzpyrene. In terms of total mutagenic or potentially cancer-causing activity, this was equivalent to four million cigarettes, released in a fairly closed area.

After the workers protested, the job was contracted out to private industry. The SA Health Commission then inspected the work conditions but unlike Coulter, it gave figures on benzpyrene levels to the employer, but not to the workers.

On April 16, last year Coulter submitted a report to the Fire and Safety Committee of the IMVS on the mutagenic and potentially cancer-causing properties of ethylene oxide, which was being used in an IMVS laboratory as a sterilising agent.

At the same time as he released the report to the IMVS committee, Coulter provided copies to the workers at the laboratory using the chemical. The IMVS director rebuked Coulter for releasing the report to the workers, even though, the significance of the findings were not disputed and the use of ethylene oxide was immediately stopped. \$40,000 is now being

spent on an alternative sterilising apparatus.

It was in March, 1980 that Coulter was told that on June 30 the EMTU would be closed and that he would be transferred and demoted with a salary drop of \$10,000. However, instead, of demotion, on June 30 he was retrenched with just a few days notice.

The director of the IMVS, Dr Bonnin, said: "Many drugs and chemicals are now tested by, or for, their manufacturers and there is little need for this work in Adelaide which manufactures almost none of these substances".

However, it is well known that results of such testing by, or for, manufacturers are often unavailable, poorly publicised, inadequate or misleading. Whether or not the chemicals are manufactured in Adelaide appears irrelevant if workers and consumers are being exposed in Adelaide.

Work at the EMTU showed the mutagenic properties of the drug tinidazole. Unknown to Coulter at the time, two earlier researchers,

Lindmark and Muller, had obtained the same results using samples provided by the pharmaceutical producers Pfizer.

But the work of Lindmark and Muller was not mentioned by the company in its promotional literature when tinidazole was launched on the Australian market. This illustrates the necessity for independent testing facilities.

The closure of the EMTU, has left only two mutagen testing facilities in Australia. Only one is truly independent, that run by Dr Don MacPhee of the microbiology department at La Trobe University who, like Coulter has done testing for unions.

The other laboratory, in Sydney, is under the control of the Commonwealth Department of Health, and is subject to the same sorts of pressures as the IMVS.

Dr Bonnin has said: "It is not the role of this institute to establish a large routine testing service for the testing of chemical substances for cancer-producing properties". In a sense this is the key point. Who

makes the decisions about the direction of scientific research, and who benefits from the particular decisions made? The council of the IMVS obviously believes that it should be making these decisions.

Coulter and his supporters believe that the IMVS actions are serving the interests of chemical and drug companies at the expense of the public interest. Coulter says: "As a public institution the responsibility of the IMVS is to defend the public — not to defend the private interest of drug and chemical companies. . . This is the fundamental difference between us".

A large number of individuals and groups have expressed their concern about Coulter's retrenchment and the closing of the EMTU. Many letters have been written to newspapers and to the SA Minister of Health.

Trade unions, led by the United Trades and Labour Council of SA, have expressed concern about the removal of a service which has frequently benefited their members and the AMWSU in SA has actively protested.

Inquiry

The opposition Labor Party in SA called for a public inquiry into the IMVS, questions have been asked in SA Parliament by members of the ALP and the Australian Democrats, and an inquiry into the IMVS has been held.

Whatever the outcome of the Coulter-IMVS affair, it is certain that this struggle will not be the last one of its kind.

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BAYGON DAZE

Dr Coulter produced this can of Baygon on the ABC current affairs programme Four Corners in May 1978, claiming it contained the insecticide dichlorvos. He said the insecticide had been shown to be mutagenic and that there was probably a 90% chance it was carcinogenic.

Within days Bayer issued a \$10 million writ against the ABC claiming their product had been said to be carcinogenic. The matter was dropped by Bayer almost a year later without reaching court. However, the action stifled all further public discussion under the sub judice rules and the film could not be reshowed.

To counter Coulter's claim Bayer produced a copy of a study done for the National Cancer Institute of the US (NCI). It concluded: *Under the conditions of this study* dichlorvos was not demonstrated to be carcinogenic." (emphasis added).

In the study, three of the group of 200 treated mice (180 survivors) developed cancer of the oesophagus but none of the control mice did. For reasons not explained, only 43 of the 179 surviving control mice had their oesophagus examined. This result did not reach statistical significance.

When these results were submitted to the NCI's Data Evaluation/Risk Assessment Subgroup (DE/RAS) this committee rejected a motion that the test was "properly designed and conducted" and unanimously voted that dichlorvos be referred back to the Chemical Selection Committee for retest.

Dr Brown of the DERAS claimed that the oesophageal cancers were dichlorvos related.

Investigation of the NCI computer files, requested subsequently by Coulter, showed that, in 5,898 mice of the same strain used as controls in a wide range of

experiments, only one spontaneous cancer of the oesophagus had ever been found.

There is a highly significant

statistical difference between this result and the appearance of three such cancers in 180 mice treated with dichlorvos.

Coulter's appearance on Four Corners was named by Dr Bonnin, former director of the IMVS, as one of the factors leading to the dismissal action taken against Coulter.

Meanwhile dichlorvos, in a number of products, remains on the shelves of Australian supermarkets when alternative insecticides, which don't have mutagenic properties, are available.

