This week

Industrial chloracne: a conspiracy of silence?

The extent of industrial chloracne has been covered up according to Dr George May, medical adviser to Coalite Chemicals. Coalite's plant in Derbyshire suffered an explosion in 1968 that released dioxin—the chemical causing all the trouble at Seveso. May chronicled the chloracne among Coalite workers caused by dioxin in the *British Journal of Industrial Medicine* in 1973.

Other companies, he claims, have not been so open. Since the Coalite explosion there have been, says May, at least two unpublicised leakages of materials that caused chloracne more serious than that seen at his plant. Both were deliberately hushed up, he alleges.

In an interview with the *Derbyshire Times* (13 August) he said that one of the leakages caused the closure of a factory within several months and, in both cases, the effects of chloracne were more serious than among the 79 men who contracted the disease at Bolsover. He gave no further account of these incidents, although the information came from an "impeccable source" to whom he gave "full credibility".

The only other known producer of 2,4,5-trichlorophenol, whose manufacture results in the dioxin by-product, was Lane Brothers, which was absorbed by the British Steel Corporation (Chemicals Division) in the early 1970s. It does not now produce 2,4,5-trichlorophenol. There is, however, controversy about an accidental spillage in 1970 of 2,4,5-trichlorophenol from a road tanker next to the plant. Some 150 sq. yd of soil was contaminated, removed and dumped at the Normandy Park steelworks. None of the workers moving the soil knew what they were handling. A member of the local health committee is pressing for a full investigation of the site by BSC and the Health and Safety Executive. Reassurances from the environmental officer of BSC's Scunthorpe plant appear to be based on the assumption that because weeds and grass now grow in the area, there is no apparent toxic residue.

It may be that the incidents which May alleges have been covered up involve chloracne caused by chlorinated aromatic hydrocarbons other than dioxin. Polychlorinated biphenyls (PCBs), polychloronaphthalenes, and chlorobenzenes (especially tetrachloroaxoxybenzene) also produce chloracne. It is not known whether PCBs, or polychlorodibenzofuran contaminants cause the disease.

The main producer of PCBs in Britain is Monsanto Chemicals Ltd at Newport, Gwent. Twelve men working in the bagging section of this plant have been suffering from chloracne for several years, according to a reliable source in the factory, though the company now claims that only two people are still affected. The same source says that fitters and maintenance men have also suffered sporadically from chloracne. Local factory inspectors refused to comment on the incidence of choloracne at the Monsanto plant.

Dr May could have been referring to other plants in his allegations. A Yorkshire plant making a herbicide closed down after a few months production because of the incidence of chloracne. Over a dozen men are still affected. However, in this case, none of the ingredients used to manufacture the herbicide has previously been implicated in the illness.

A new charter for laboratory animals

In their recent Memorandum to the Home Secretary, *Experiments on Living Animals*, Lords Platt and Houghton, and their colleagues, advising the government on what to do about the 100-year-old "cruelty to animals" Act, are uncompromising. From a situation in 1876 when animal experiments "could be counted annually in hundreds and experimenters were but a handful," we have reached a situation where Britain alone sustains some five million such experiments per year (see *Comment*, p 370).

"Present control," says the Memorandum, "under the Act is inadequate." Citing the urgent need for more information than is available via the three present sources on animal experimentation—*viz* the Home Office Return, the list of registered premises, and a Home Office card index of the names and addresses of licence holders—it continues: "The catalogue of mutilation, misery and downright cruelty to animals is both lengthy and horrifying. The public believes that all experiments are conducted for medical research. They do not realise that the use of animals has spread into cosmetics, testing of weedkillers, detergents, soaps, into university departments of psychology, zoology, forestry and agriculture."

The Committee recommends that the issue of licences for animal experiments be tightened up and reinforced by an increase in the number and quality of inspectors who visit laboratories. Moreover, it suggests that the Advisory Committee be granted increased powers.

As well as advocating greater vigilance over the use of animals for experiments, the committee is concerned about the conditions under which animals are bred and looked after for these purposes.

In summary, the presenters of the Memorandum, offer as their over-riding aims:

"a) There should be strong, constant emphasis upon the need to restrict procedure likely to cause suffering of any sort, including stress

"b) A determined effort should be made to restrict the use of animals in procedures which are not strictly for human medical therapeutic purposes such as the testing of cosmetics and toiletries, the testing of weapons of warfare and behavioural research

"c) Progressive restrictions on the use of animals (especially the highly developed species) in favour of non-sentient alternatives should be pursued wherever possible

"d) Greater importance should be attached to the need for training in, and the application of, the techniques of anaesthesia, analgesia and euthanasia

"e) Procedures no longer regarded as strictly experimental should not escape the disciplines of the 1876 Act. These include passaging, the transplantation of ova and similar agricultural procedures, the breeding of abnormal animals or animals susceptible to spontaneous diseases, the use of animals in the production of biological substances such as sera and vaccine, and for teaching, training and testing. Other scientific procedures which should not be left to the general laws dealing with cruelty to animals should include any which interfere with the animal's ordinary state of health or well-being (excluding procedures which form part of normal veterinary diagnosis or treatment). Certain invertebrate species should be brought within amending legislation as also should stock animals being bred and kept for purposes defined in the Act. The 1876 Act should also apply to the Crown."

A molecular probe for southern skies

Radio astronomy in Australia is strengthened this week with the inauguration of a new telescope designed to operate in the millimetre waveband of the spectrum. Located at the CSIRO division of radiophysics in Sydney, the new instrument has an aperture of four metres. Although this appears to be small compared to the giant radio telescopes at Jodrell Bank, Bonn, and Parkes, the resolution is similar to a large dish because it functions at a shorter wavelength. The facility has been funded by NASA and CSIRO.

Observations will be made in the range 2 to 6 mm, which is where the spectral lines of many interesting interstellar molecules are found. Among the problems that can be studied are the formation of new stars inside cold gas clouds, the distribution of molecules in the Milky Way, and the abundance of the chemical elements in cosmic clouds. Much of the southern sky cannot be seen by the millimetre dish at the Kitt Peak Observatory in Arizona. The Australian telescope will be important for obtaining complete surveys of the sky at millimetre wavelengths. □

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