

SWEDEN

● The National Environment Protection Board has proposed to the government that, from 1 January 1979, no aerosol pack containing halocarbons as a propellant should be made in Sweden or imported without permission from the Board's Product Control Division.

The Swedish initiative follows American research into aerosol packs and their effect on the ozone layer—an area in which the Swedes have not done any independent research. The present proposal was stimulated by last May's joint recommendation by America's Food and Drug Administration, Environmental Protection Agency and Consumer Product Safety Commission that would forbid the manufacture of halocarbons or of sprays containing them and the sale of both by April 1979.

The American recommendation exempts aerosols for certain essential uses, mainly medical (sprays for asthmatics, for example), and envisages other uses deemed essential in the future being added to the list of exemptions. The Product Control Division chemist who wrote the Swedish proposal, Ingrid Jedvall, sees much the same sort of situation emerging in Sweden, with certain aerosols being given permission to be sold. As an administrator she prefers her proposal to the American one because if all decisions about particular aerosols are taken within the division, no publication and updating of exemptions will be necessary. It could also be argued that the public should be informed which aerosols are being sold at any time. Critics will no doubt label the proposal as typical of a Swedish trend, which they see as government by bureaucrats whose tenure does not depend on responsibility to the people.

Sweden does not manufacture halocarbons, and uses less than 1% of the world's consumption. In 1975, the country used about 5,200 tons of halocarbons, but this amount has decreased to the extent that the 1977 total is expected to be only about 1,200 tons. The 1975 amount was used in the following proportions: cosmetics 65%, household products 6%, medical and veterinary 3%, colour, waxes and polishers 9%, insecticides 4%, products used in industry 12%, and other uses 1%. In the same year, 29 million packs were sold, an average of about 3.5 for every inhabitant.

The decreased use of halocarbons is partly due to changes in production introduced successively since 1973 by the Aerosol Packing Co., which sells

75% of aerosol cans in Sweden. It has changed from halocarbons to propane and butane and, as a company spokesman pointed out, will not be at all dismayed if halocarbons are regulated. To offset the fire risk present during manufacture under the new régime, the company has computerised the system so that the cans are monitored and the whole system can shut off automatically if concentrations of the gases reach the danger zone.

● Sweden's first wind power station was recently opened on the coast north of Stockholm, at Älvkarleby. Its 18-metre-wide vane, which rotates about an axis perched on top of a tower 25 metres high, generates between 50 and 63 kilowatts. Ungainly though it looks, its computer—which automatically adjusts the angle of the vane to the wind—should provide the state Committee for Energy Research with useful data about the way its design stands up to stress and vibrations under different wind conditions. It is, says one committee member, Sven Hugosson, a sort of laboratory bench unit whose performance will determine whether it will be worth building others of the same type. The first evaluations of the way it is going will be made this summer.

Whatever the results, they will not influence the next phase of the Committee's wind programme, due to begin in August. Three full-size wind power stations, each generating 2 megawatts but differing in design, will be located in various parts of the country with the help of a survey done by the Meteorological Institute describing wind conditions around the coasts. Their performances will determine which designs will be built in future. At the opening of the Älvkarleby station the Energy Minister, Olof Johansson, looked forward to the turn of the century, when he envisaged wind energy providing between 4,000 and 10,000 megawatts.

Sven Hugosson says he does not doubt the technical feasibility of wind power for Sweden, but that very little money has so far been appropriated for experimentation. He does not think it could replace any other source of energy, but is certain it could play a part—especially in conjunction with hydro-power—in providing total energy needs. It does have, however, some surprising hazards: chunks of ice may be flung off the vane in winter and scattered like mini-missiles.

Wendy Barnaby

IN BRIEF

JET: still waiting

Some intensive lobbying is expected throughout Europe over the next couple of weeks in the run-up to the EEC Council of Foreign Ministers in Brussels on 25–26 June, when a decision on the siting of the Joint European Torus (JET) fusion project is now due. The subject came up at the meeting of European heads of government in London last week. Reports of a West German effort to secure a greater UK contribution to the Community budget in return for the project going to Culham instead of Garching were not in the event borne out. The leaders failed to agree and the matter was passed over to the Foreign Ministers for them to decide in a make-or-break meeting.

At a press conference after the meeting, the UK Prime Minister, James Callaghan, said he doubted whether any individual country could carry on on its own if a solution satisfactory to everybody wasn't reached. But with such an excellent team at Culham, he said, "It would be my desire to see whether we could work out bilateral, trilateral, quadrilateral or multilateral agreements with any group of countries that will keep the project in Europe, even if it wasn't a European project in the technical sense".

World climate conference

At its 29th session in Geneva last month the executive committee of the World Meteorological Organisation (WMO) decided to convene in 1979 what it calls a high-level scientific and technical conference, called the World Climate Conference, gathering together meteorologists and experts on the effects of climate on economies.

The timetable of the first global experiment of the Global Atmospheric Research Programme (GARP) was approved. Gathering of atmospheric and oceanographic data for research will be planned this year and observations will be carried out from December 1978 to November 1979, especially during January–February and May–June 1979. The aim of the experiment will be to improve meteorological forecasts and to obtain a better understanding of climate.

Energy balance urged

Governmental machinery for striking the right balance between different energy sources, bearing in mind not only availability but the differing community and environmental costs, is "entirely lacking", says Sir Peter Kent in a letter to *The Times* this week. Sir Peter, chairman of the UK Natural