

## news in brief

**US Senate agrees to circumvent environmental legislation:** The US Senate agreed last week to support President Carter's proposals to establish an Energy Mobilisation Board to cut red tape on selected large energy projects. This was despite the objections of environmentalists and state and local groups that the board's powers to speed up the review process could undermine many of the environmental laws that have been passed in recent years, and would trample on the rights of local governments. An intense lobbying effort by Carter and by the oil industry managed to secure the defeat of an amendment from Senator Abraham Ribicoff and Senator Edmund Muskie that would have eliminated these provisions from the Bill setting up the board. The measure now passes to the House of Representatives, which is already considering two versions of the Bill, one of which — passed by the House Commerce Committee three weeks ago — would give the board even stronger powers to ignore what it considered to be unreasonable environmental legislation. Meanwhile, a report prepared by a Senate budget committee and issued last week stated that the President's proposal to reduce oil imports through massive development of synthetic fuel production cannot presently be justified on economic grounds.

**Fuelling guided missiles can seriously damage your health,** as well as causing a major threat to the environment, according to Chinese military experts. Charging a missile with liquid fuel is a delicate task, involving an accurate determination of the temperature in the fuelling trough. Conventional sampling methods entail drawing off a sample of up to 40 kg. This deteriorates in contact with the air during the measuring process, and is afterwards voided, seeping into the soil and polluting the ground-waters. There is also considerable atmospheric pollution and health hazard, apparently from reaction fumes. To overcome these disadvantages (and to save the state the 1500 yuan spent annually on the wasted fuel), two members of the "fuelling squadron" — platoon leader Wang Enchen and technician Xun Chengzhi — have developed a closed-loop test method which gives a direct readout from a temperature gauge permanently fixed inside the test chamber. In a recent broadcast, Peking radio stressed the prolonged research in metallurgy and the science of refractories needed before an effective system was perfected. But now, said the commentator, this sophisticated system has saved state research and development funds, improved working conditions for the fuelling personnel, and shortened the average fuelling time from ten hours to six (and on one occasion, only 2.5).

**US experiments carried by Soviet satellite:** An international collaboration on the effects of weightlessness on animal and bacterial growth was launched 26 September in the Soviet Union. The major payload consists of 38 white rats and 60 fertilised Japanese quail eggs shared among experimenters from the participating countries which include the US, France and Czechoslovakia. The launch is similar to two previous Cosmos missions in 1975 and 1977 in which the US also participated. In addition to experiments on embryonic growth in both mammals and birds, studies will be made of changes in animal muscle and bone in an attempt to investigate the reasons for calcium loss in the bones and loss of muscle strength by astronauts and cosmonauts during prolonged space flights. The flight will last three weeks.

**West German government outlines biotechnology programme:** In response to a formal parliamentary question, the Federal Ministry for Research and Technology (BMFT) has published its appraisal of West Germany's present position in biotechnology. West Germany is in the middle rank for biotechnological research, well behind the US and Japan but with a research effort comparable to the UK and France, says the BMFT. In certain sectors, West

Germany has reached international standards — for example in the production of single cell proteins from methanol, in cell culture technology, in basic research for bioreactor development, and in the production of compounds by enzymatic conversion.

For the first time the 1980 research budget contains a separate entry for research and development in biotechnology, amounting to 37 million DM. The government's aim is to improve the current standard of research and to facilitate industrial implementation of research results. The government also wants to reach international standards in the following areas: design and construction of bioreactor systems in sewage treatment; biosynthetic processes; fixation of bio catalysts; gene technology and plasmid research; biological nitrogen fixation; and bioenergetics and renewable raw materials.

**French government backs down on faulty nuclear start up:** A five-day strike by the socialist and communist trade union federations, the CFDT and CGT, has forced the French government to postpone the loading of its Gravelines 1 and Tricastin 1 nuclear reactors. The French electricity authority will convene health and safety committees to investigate the implication of the fissures in the tubular plates of the heat exchanger (*Nature* 27 September) and will make further checks, not expected to take more than three weeks, on the faulty parts. The existence of the cracks up to 6 millimetres deep was made public on 22 September but the government announced its plans to go ahead with the fuelling on 3 October. Although up to 20 reactors are affected, the government argued that the cracks would have to be 60 millimetres deep to constitute a serious hazard. The government's decision provoked a storm of criticism throughout France as political and environmental groups joined the trade unions in protesting the government's decision. Eighteen organisations issued a joint statement on 3 October calling on the government to "refuse this fantastic industrial gamble which could have very heavy consequences." The faults in the heat exchanger plates raise the question whether the plates could actually break. Collapse of the plates means instant and uncontrollable release of water from the primary cooling circuit which would result in a complete loss of coolant.

**WHO report criticises current European occupational health programmes:** The World Health Organisation has released a stinging critique of routine health examinations for workers exposed to occupational hazards. The report says that European countries have placed too much emphasis on medical examinations and not enough on elimination of industrial hazards. "The fact is sometimes overlooked that the examination of a worker does nothing to eliminate the hazard . . . . Technical improvements should be considered first and the goal should be to make examinations unnecessary by eliminating hazards in industries." The study, a survey of industrial health practices in Finland, the German Democratic Republic, Poland, the USSR and the UK, questions the efficacy of periodic health examinations which are undertaken on a "considerable" scale by European governments. Criticising the lack of knowledge of physicians of the physical and mental requirements of specific jobs, the difficulty of predicting the consequences to health of exposure to industrial hazards and false negative results of many clinical and laboratory tests, the report claims that present practices are wasteful and avoid the real problem of prevention. "If the cost and benefits of the examinations are compared with the really effective alternative, the elimination of the hazards, the present practice in many countries will be shown to be uneconomic."

● The second author of last week's article on geological aspects of nuclear waste disposal (4 October, 332-4) should have been D.A. Gray, not D.A. Greenwood.