

US biological weapons

New test facility defended

Washington

DESPITE delays in construction forced on it by the courts, the United States Army has defended its plans to build a biological aerosol test facility (BATF) at the Dugway proving ground. In a report to Congress, the Army calls BATF a "small but critical facility" needed to provide adequate defence against biological weapons. But critics worry that the facility may easily be mistaken for the harbinger of a new offensive biological weapons programme, putting arms control agreements at risk.

Language inserted into last year's defence appropriations bill required the Army to respond to a set of specific questions about the planned uses of the Dug-

double their pay

have Britons employed by the United Kingdom Atomic Energy Authority on British salaries, while non-Britons (some 162 in all) are employed by Euratom on the very comfortable salaries of a European civil servant.

The European Commission is resisting any change in the JET salary arrangements, however, and an official pointed out on Monday that there were precedents. Euratom helps support a number of other European fusion research centres besides JET, though these are national (such as Britain's own laboratory at Culham, France's at Fontenay aux Roses, and West Germany's at Garching). There are a number of non-nationals (30 at Fontenay, 10 at Garching, but just one at Culham) who are supported at these institutions on Euratom contracts somewhat more favourable than the local, national pay scales. JET is unique, however, in having a roughly 50:50 ratio of local and Euratom-supported staff.

According to a spokesman for the British group at JET, the loyalty and commitment of the Britons to the JET project remains high, and some of the Euratom employees at the laboratory are supporting the case. The late director of the JET project, Hans-Otto Wüster, in fact first suggested the Britons seek legal advice, although he resisted that advice when it proved favourable to the Britons' case. Morale is good at JET, staff insist, and the case is being pursued "without passion". The European Commission hopes for a court decision by the end of this year. Meanwhile, the British at JET are waiting for the recommendations of the new Advocate General appointed to the case; unfortunately for them, the first, who found in their favour in the lower court, has now retired.

Robert Walgate

way facility. In its written response, delivered to Congress earlier this month, the Army states that "the United States cannot defend itself adequately against conventional biological warfare agents", making increased defensive efforts crucial. Two factors convince the Army that greater vigilance to the threat of biological warfare is necessary. The United States still maintains that yellow rain in South-East Asia is evidence of Soviet use of biological weapons in violation of the 1972 biological weapons convention.

In addition, new biotechnologies provide cheap and easy methods for production of biological agents that can be used as weapons. BATF is designed to test defensive equipment against a variety of potential biological agents. Despite the fact that Army plans call for a biosafety level 4 facility, the level traditionally associated with recombinant DNA experiments involving virulent agents, the Army has no plans to test genetically engineered material in BATF.

But critics feel the Army's own arguments will force it to resort to testing recombinant DNA organisms. Barbara Rosenberg, a molecular biologist at the Sloan Kettering Institute in Rye, New York, and a member of the committee on the military use of biological research, argues that developing a defence against the many agents formed by recombinant DNA techniques will require similar technology. Indeed, the Army report does not permanently rule out such activities.

The Biological Weapons Convention prohibits signatories from developing, producing or maintaining stockpiles of biological weapons. The Army maintains that BATF does not violate the convention because research on biological agents for "prophylactic, protective or other peaceful purposes" is permitted by the treaty. But critics point out that toxic agents used for testing could quickly be transformed into offensive stockpiles. Possessing such a capability only heightens uncertainty about US intentions, says Rosenberg.

The Dugway facility has faced problems since it was proposed in 1984. At first, the project was held up by Senator Jim Sasser (see *Nature* 312, 189; 1984). After Sasser's objections were resolved, Jeremy Rifkin successfully thwarted Army plans by convincing a federal judge that the Army had not made an adequate environmental assessment for its facility. The Army has now commissioned a complete environmental impact statement due to be completed at the end of this year. But even an acceptable impact statement may not persuade the court to lift its injunction blocking construction of BATF. **Joseph Palca**

Chernobyl

Eastern bloc reactions

THE chief inspector of the Czechoslovak Atomic Commission, Jiri Beranek, has called for a re-evaluation of all nuclear safety measures, on both a national and an international level. Interviewed on Prague radio, Beranek stressed the need for a long-term study of possible chemical reactions within reactors that would lead to the generation of hydrogen, the presence of combustible material in reactors, and the reliability of the human factor.

The first two points clearly relate to the Chernobyl disaster. Although the Soviet government's special commission on Chernobyl has not yet reported, Soviet experts have already accepted a scenario in which a surge of power led to the production of steam, which reacted with the zirconium fuel-cans to produce hydrogen. Whether human error was directly involved at Chernobyl is unclear. In mid-May, the Soviet media made brief mention of an "experiment" being in progress at the time of the accident, which could mean that someone tried some unorthodox method of dealing with the reactor which was already causing problems.

Beranek's concern for increased nuclear safety coupled with a firm commitment to nuclear power is typical of Comecon officials — although most of them, privately, have a good store of "black" post-Chernobyl jokes. In Poland, where some 300 inhabitants of the Bialystok area signed a petition calling for a halt to construction of the country's first nuclear plant at Zarnowiec, the official reply was that a future without nuclear power would put Poland back in the dark ages.

In Hungary even the dissident ecological "Danube Circle" has refused to condemn nuclear power, which it sees as less threatening than the controversial Gabeikovo-Nagyymaros hydroelectric dam. And the Soviet Union itself, of course, is still committed to an energy policy based on the "accelerated growth of nuclear power", which, according to the current five-year plan, should produce an output of 390,000 GW in 1990 (against 167,000 GW in 1985).

It is only the Soviet Union's non-aligned and neutral neighbours that changed their energy strategy in the aftermath of Chernobyl. Yugoslavia, which already had a vocal antinuclear lobby, has postponed any decision on further nuclear power plants "until the long-term programme for the development of the energy industry has been adopted", and has decided to concentrate on energy conservation and hydroelectric power. And Finland has likewise dropped plans for a fifth nuclear power plant. **Vera Rich**