

NUCLEAR ACCIDENTS

Medvedev testifies

London

DR Zhores Medvedev, the biologist and former dissident who was deprived of his Soviet citizenship under Brezhnev, returned to the Soviet Union last week to testify before a special commission of the Supreme Soviet on Nuclear Safety. Medvedev is the author of *Nuclear Catastrophe in the Urals*, the only book so far on the accident in 1957 which until a few weeks ago had been covered by a veil of official secrecy. The hearing was chaired by Yury Shcherbak, author of a major work on the Chernobyl disaster (*Chernobyl: A documentary Story*, Macmillan, 1989) and now chairman of the Supreme Soviet's sub-committee on nuclear ecology.

Speakers at the hearing included Boris Nikipelov, first deputy minister of medium machine building (the cover-name for the nuclear industry), who testified that the accident, on 29 September 1957, had taken place at a "defence enterprise in the southern Urals", where there had been "violations" in the cooling system of a 300 cubic metre concrete vessel, used for storing radioactive waste. There was a partial evaporation of water, Nikipelov said, leading to a rise in temperature and the consequent explosion of acetate-nitrate salts. The seal on the vessel was ruptured, and there was an emission of radioactive material into the environment. "Twenty million curies of radioactivity" were ejected from the vessel, Nikipelov said, but 90 per cent of this fell in the immediate vicinity of the vessel. The remaining 10 per cent was eventually deposited over some 15,000 square kilometres of the Chelyabinsk, Sverdlovsk, and Tyumen regions, from which some 270,000 people had to be evacuated and 100,000 hectares of land taken out of agricultural use.

Medvedev's evidence related mainly to the medical aspects of the disaster, which took place, he stressed, at a time when the hazards of exposure to ionizing radiation were not fully appreciated, and to his own role in revealing the catastrophe to the West. He related how his first mention of the disaster — in a general survey of Soviet science — had attracted a flood of criticism from Western supporters of nuclear power, who had accused him of being a KGB agent, sent to discredit the US nuclear programme.

Reviewing the session, Shcherbak observed that this was the first step in a "major, very complicated and very long march" towards openness in matters relating to nuclear power.

While Zhores Medvedev was testifying before the commission on nuclear safety, his dissident twin brother Roy was working as head of another special commission, investigating the activities of T. Gdlyan,

an official attached to the Soviet chief prosecutor's office. Gdlyan had been responsible in 1983 for the prosecution of Johannes Hint, an Estonian physicist and Lenin Prize winner for "embezzling state property on an especially large scale", (see *Nature* 354, 307; 1983). Hint died in prison in 1985, but was posthumously rehabilitated earlier this year. It then emerged that Gdlyan was still in high official favour, and was now in charge of investigations into the notorious corrup-

BRITISH RESEARCH

No way to prepare for 1992

London

As 1992 and the European "single market" approaches, British science is falling behind, according to the Advisory Board for the Research Councils (ABRC). In a report to Kenneth Baker, the former Secretary of State for Education, published on 27 July, the ABRC points to "worrying signs the UK's share of scientific output is declining", and says that a boost of £360 million is needed over the next three years to prepare for 1992.

The government announced last autumn an increase of nearly £100 million in the science budget over the next three years but the ABRC, which advises the government on the distribution of research funds to the universities, says this represents a reduction of 3 per cent in real terms, and that even allowing for this increase the UK is spending between £150 million to £200 million per year less than its main European competitors.

Britain's ability to contribute to the international debate on environmental change is questioned. The United Kingdom is involved in a number of important international research programmes, says the report, but "our assessment is that without additional resources, UK scientists will be unable to play a full role in these."

Britain will have to be content with a reduced role in the European space programme and British scientists will miss the chance to research into the ability of the oceans to absorb the 'greenhouse' gas carbon dioxide. A number of health programmes are under threat, including plans to mount clinical trials in breast cancer screening, a vaccine for whooping cough and studies of the causes of deaths amongst the elderly in winter. And unless action is taken soon to improve the climate for science "there will be a critical shortage of suitable qualified researchers in the 1990", the ABRC says.

With 1992 on the horizon, the report also warns that Britain is poorly prepared to take advantage of the increased co-operation and exchanges of manpower

and nepotism scandals in Uzbekistan. A special commission of inquiry was hastily convened, but, in Roy Medvedev's opinion, it is liable to take some time in reaching a conclusion. **Vera Rich**

■ In the article "Byelorussia collects dose" *Nature* 27 July, 1989, p.255, the fourth paragraph should begin "Unlike similar 'popular fronts' in other Soviet Republics, Adradzennie was not even allowed to hold its inaugural congress in its own republic, but had to be across the frontier, in Lithuania, while Pazniak's 'Statement to Western Journalists' had to be sent out via Latvia." □

and expertise which will emerge. Britain is "lagging well behind" France and West Germany in its support of materials science, chemistry, physics, medical and biological sciences.

The board is asking for an extra £94 million in 1990, £131 million in 1991 and £135 million in 1992. The blunt message to the government is: "Increased investment in science is essential to provide both the equipment and personnel the UK needs to meet the challenges of the 1990s".

Ben Webb

Science and Public Expenditure 1989: A report to the Secretary of State for Education and Science from the Advisory Board for the Research Councils is available from Publications Despatch Centre, DES, Honeypot Lane, Stanmore, Middx.

SPACE TELESCOPE

Demand sufficient for nine more 'Hubbles'

Washington

OUT of 556 proposals for observational programmes using the Hubble Space Telescope (HST), 162 have been selected for the first 12-month run of telescope time, due to begin about a year from now. HST should be launched in March 1990, but the first seven months is devoted to commissioning. About one-fifth of the successful proposals come from members of the European Space Agency.

The total of submitted proposals represented an oversubscription to the available observing time of almost a factor of ten, and even with the pruning that has now been done, HST time is oversubscribed about three times. High priority has been given to 108 of the proposals and the remaining 54 will be included in the schedule only if vacancies open up during the first year of operation.

Observations of particular importance are those of the cores of globular star clusters, of nearby supernova remnants, and of the central regions of active galaxies, in all of which HST's high resolution may reveal qualitatively new detail. **David Lindley**