

US dispute on nuclear bomb safeguards

Agency and Administration at loggerheads

Washington

The State Department and the Nuclear Regulatory Commission (NRC) are drifting towards loggerheads on anti-proliferation safeguards. Both parties agree that the safeguards administered by the Vienna-based International Atomic Energy Agency (IAEA) need to be improved. The State Department, reflecting a general drift away from the policies of the Carter Administration, would prefer to use conventional diplomatic channels.

In contrast NRC, which under the Nuclear Non-Proliferation Act signed by President Carter in 1978 is required to assure Congress about the adequacy of IAEA safeguards, is pushing for a more direct approach. Following sharp criticism of IAEA procedures by two former inspectors (*Nature* 26 November, p.300), the five members of the commission have sent a letter to all members of Congress saying that the current safeguards system "would not detect a diversion in at least some types of facilities".

In the light of this concern and the general shadows that have recently been cast over the adequacy of IAEA safeguards, NRC has decided to carry out a review of its own policies on granting export licences for nuclear materials. The State Department, however, although embarrassed by disclosures about weaknesses in IAEA's safeguards system, does not seem to feel any such drastic action is necessary. Addressing the Senate Foreign Relations Committee last week, Mr Richard T. Kennedy, Under-Secretary of State for Management and a former member of NRC, repeated the Administration's commitment strongly to support the agency.

Introducing the Senate hearings, committee chairman Senator Charles Percy emphasized the central importance of IAEA, and pushed Mr Kennedy hard on whether the Administration was doing everything it could to prevent the spread of nuclear military technology, complaining that the Senate had been provided with insufficient information on procedures agreed with Pakistan and IAEA to prevent the diversion of civilian technology. Senator Percy put the suggestion — strongly denied by Mr Kennedy — that the Administration might be going "soft" on non-proliferation to help boost the sagging exports of the domestic nuclear industry.

Democrat Senator John Glenn went

even further, suggesting that the State Department should put pressure on other industrialized countries to provide a significant increase in technical and financial resources for the agency. To support his argument that such increases were badly needed, Mr Glenn produced a report prepared at the Pacific Northwest Laboratory under contract to the Department of Energy throwing doubt on whether IAEA was able to achieve its technical objectives of the surveillance and accounting of nuclear materials.

One issue on which there was little disagreement between Senator Percy and the Administration was over attempts by

Third World countries to gain greater influence on the activities of IAEA, both in terms of increasing their membership of the governing council and in appointing more inspectors from the developing nations. On the latter point it was agreed that, although an important objective, it should not be pursued at the price of sacrificing the quality of inspection procedures. On the other hand, Mr Kennedy made it clear that the State Department would resist attempts to "politicize" the agency, in terms of changing the current balance of control.

There is a deeper division over the extent to which a lack of detailed information about the technical data used by IAEA in

Is creation a science or a religion?

Little Rock

The state of Arkansas was accused on Monday morning of making "an unprecedented attempt to legislate what is science" at the opening of a trial over its efforts to determine how different theories of the origins of man should be taught in its public schools.

The American Civil Liberties Union (ACLU) is challenging as unconstitutional a law, passed by the state legislature earlier this year, which requires that whenever the Darwinian theory of evolution is taught, an equal amount of time should be devoted to presenting evidence in favour of what is described as "creation science".

ACLU contends that the law violates the first amendment to the constitution, which requires a strict separation of church and state. It argues, in the words of Little Rock attorney Robert M. Cearley, that "creation science is not science but religious apologetics, an attempt to prove or justify sectarian religious beliefs". The state argues that there is nothing inherently religious in teaching that the world came into being as the result of a positive act of creation, and that the evidence used to support this hypothesis is "at least as scientific" as the evidence for the "evolution science".

Setting the agenda for a debate that is likely to dominate the trial, state attorney-general Stephen Clark responded in his opening statement that "this is not a trial about religion but a trial about science".

In 1968, the United States Supreme Court struck down as unconstitutional a state law forbidding the teaching of evolution on the grounds that it contradicted a literal interpretation of the Bible. This time the issue has been reversed. ACLU has brought the case on behalf of 23 local religious leaders, biology teachers and schoolchildren, claiming that the new law infringes their rights to freedom of religion.

"For practical purposes it is a tremendously important case for us because it is the first of its kind, and the

decision of the court will get a lot of attention", said ACLU staff attorney Jack Novick before the case started. He pointed out that a similar bill has recently been passed in Louisiana, and that others are pending in up to twenty more states.

Three complaints are being made by ACLU. The principal charge is that the law violates the first amendment to the constitution. It is also being charged that the law infringes the academic freedom of teachers and schoolchildren, since it imposes conditions under which evolution can be taught; and that the language in the bill is unconstitutionally vague.

The state attorney-general in disputing each of these charges claims that, since there is nothing necessarily religious in the idea that the world came into being at the hands of some undefined form of creator, there is no problem with the constitution.

Each side will introduce a string of scientific witnesses to support its case. For ACLU, these include prominent academics in fields such as biology, geology and palaeontology; the state plans to introduce qualified scientists who claim their results substantiate the creationist theory of origins. Furthermore, unlike previous cases in which the relative merits of the two explanations were directly compared, this time the focus will be as much on the philosophy of science, with Judge William Overton deciding what types of ideas and reasoning can be described as "scientific" and "religious".

The case is expected to last for two weeks. If ACLU loses, it is already promising that it considers the case so important that it will take it as far as the Supreme Court, which has ultimate say on constitutional issues.

If the civil liberties group wins, then Mr Novik says it will press for full payment of its legal costs — calculated to be several hundred thousand dollars — against the state of Arkansas. But in that case, the state is expected to appeal against the verdict. So either way, the full legal debate is likely to last for a long time.

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