

In the years immediately after the war Oppenheimer became much involved in giving advice to the government, especially on defense problems. While he advised that our atomic armaments be efficient and strong, he belonged to the group which advocated restraint in this field. With many others he advised against exclusive emphasis on the strategic use of large atomic weapons and for more emphasis on tactical warfare and air defense. The battles he fought are still going on.

The most famous advice was the recommendation of the GAC late in 1949 against a U.S. crash program to develop the hydrogen bomb. After a bitter fight President Truman decided for the H-bomb program. This fight left its mark, as did Oppenheimer's earlier and subsequent recommendations against overemphasis on strategic atomic weapons. In 1953, under the influence of the McCarthy madness, the government withdrew Oppenheimer's clearance for secret work for the Defense Department and the AEC. Oppenheimer requested and obtained a hearing. The transcript has become one of the most widely read of political and military documents. From the testimony of over 20 witnesses, American and foreign readers could form a rather complete picture of the development of U.S. defense thinking in the early postwar years.

The hearing board, with a majority of 2 to 1, and then, on Oppenheimer's appeal, the AEC, with a vote of 4 to 1, decided that Oppenheimer could no longer be cleared for secret information. Oppenheimers' opinions on defense matters, while presumably the cause of the attacks on him, did not constitute legal reasons for withdrawing the clearance. Instead, the decision, especially of the commission, was based on early associations of Oppenheimer's with Communists. The main argument was that in 1942 when Oppenheimer had been asked to reveal secrets of the electromagnetic separation of uranium isotopes to the Russians, he had given to the FBI the name of the person who originated this request but not the name of the personal friend who had transmitted it. Of course Oppenheimer had refused to give any information to the Russians.

I could not understand then, and I cannot understand now, how anyone could argue that this misdemeanor of Oppenheimer's, being then 12 years in the past, could justify the withdrawal of his clearance.

The award of the Fermi prize recognizes the outstanding merit of J. Robert Oppenheimer in connection with the development of atomic weapons in wartime Los Alamos and in advising the government on the further development of atomic energy for war and peace afterward.

It also recognizes his stature as a

physicist who has greatly influenced theoretical physics and who has, through many years, led the most important school for theoretical physicists in America. By this award the U.S. Government has shown, though somewhat belatedly, that it can recognize unusual merit regardless of political controversy

World Atom Agency: Negotiations on Indian Reactor Hold Promise of Brighter Future for IAEA

United Nations, New York. Prospects appear to be brightening for the International Atomic Energy Agency (IAEA) to come out of the wings and play a significant role in the promotion and safeguarding of nuclear energy.

IAEA has a long way to go before it will attain the position envisioned for it in the Atoms for Peace proposal that led to its founding. But despite gloomy forecasts that were made toward the end of last year, it now seems that the Kennedy administration has resolved whatever doubts it may have had and is pushing a number of measures aimed at strengthening the organization.

For reasons that are rooted in IAEA's beginnings, the critical issue now facing it is the matter of safeguards for a 380-megawatt power reactor that the Indian government is planning to buy in this country (*Science*, 14 December). IAEA's *raison d'être* was to provide assurance that the spread of nuclear power would not be accompanied by the spread of nuclear weapons, and throughout its 6-year history the agency has sought to win acceptance as the international organ for making certain that power reactors were not diverted to the production of weapons-grade plutonium. So far it has failed to win such acceptance, largely because nuclear power has come along far more slowly than was anticipated, but also because most nations, the U.S. included, are not eager to have international inspectors poking around their atomic installations. The projected Indian reactor is of especial significance because it will be the first reactor with weapons potential to be placed in the hands of a nuclear have-not. Thus, IAEA has looked with especial concern on the safeguards issue, and it was understandably demoralized to learn that the Indians were opposed to IAEA safeguards and that the United States was willing to consider apply-

ing safeguards on a bilateral basis. It is on such a basis that the United States has provided nuclear materials for some 40 nations, but the very size and potential of the Indian reactor made this particular case a critical crossroads for the agency.

Against this background, deep fears were aroused in the agency's supporters last December when Harlan Cleveland, Assistant Secretary of State for international affairs, stated that the United States "preferred" international safeguards but was not rigidly tied to this principle. His remarks caused some supposedly knowledgeable people to predict that IAEA was bound for ruin, but there appears to be little basis for such despair.

Negotiations between the United States and India have been going on over the past several months, and while no firm results have yet been attained, the United States has been pushing hard for IAEA safeguards and is reasonably optimistic that some arrangements beneficial to the agency can be worked out.

In addition, a seven-nation committee is now meeting in Vienna to discuss raising the 100-megawatt (thermal) limit on IAEA safeguards, presumably in anticipation of the Indian reactor. The limit has given the major powers a seemingly sound technical excuse for not accepting IAEA inspection themselves, but now that a power outside the nuclear club has prospects of obtaining a major reactor, proposals to remove the limit have gained momentum.

And finally, the United States is prodding its bilateral partners in nuclear affairs to replace American safeguards with IAEA safeguards. This is difficult business to negotiate, since many smaller nations regard IAEA inspection as a sign of second-class status, but an effort is being made to convince them that it doesn't hurt to do business with IAEA, and administration officials are optimistic that they can swing some of the bilaterals over to the international organization.—D. S. GREENBERG