

# international news

FOR the second time in less than a month, the Atomic Energy Commission has been hit hard with a critique of its safeguards against the theft of weapons-grade nuclear materials. The latest attack is particularly damaging to the AEC's public defence of its safeguards because it comes not from acknowledged critics of nuclear power but from an internal AEC study by four AEC consultants and one AEC employee.

Released last week by Senator Abraham Ribicoff, in spite of strenuous objections from the AEC, the study concludes that the commission's safeguards are "entirely inadequate" to prevent ingredients of nuclear weapons being stolen from the United States nuclear power programme.

A central criticism is that diversion of weapons-grade material from the power programme poses a greater threat to the public than the risk of a nuclear accident, yet "the relevant regulations are far less stringent". The study goes on to note that "It is our strong feeling that the point of view adopted, the amount of effort expended, and the level of safety achieved in keeping special nuclear material out of the hands of unauthorised people is entirely out of proportion to the danger to the public involved".

The AEC's reaction to these charges, outlined in a statement hastily distributed by its press office, is that there is not much danger of diversion of weapons-grade material at present be-

## More criticism of nuclear safeguards

*Colin Norman, Washington*

cause very little highly enriched uranium or plutonium is used to fuel the light water reactors which now form the basis of the nuclear power programme. But the commission added that it is "taking a hard look at the study to determine what additional measures should be taken to further strengthen the requirements to safeguard nuclear materials from theft".

The point is however, that towards the end of the 1970s light water reactors will probably be operating on a plutonium cycle, which means that large quantities of weapons-grade nuclear material will be shipped around the country as reactor fuel. And if the fast breeder reactor lives up to the AEC's expectations, by the end of the century the amount of nuclear material flowing through the power programme could be sufficient to manufacture a quarter of a million bombs a year.

The study first finds fault with the system for accounting for nuclear materials in the fuel cycle. "The uncertainties in the accumulated material balances of the atomic energy operation of the country already make it impossible to say that an explosive

mass has not been diverted, and if reliance is placed solely on material balance methods that statement will have to be expanded many, many-fold in the near future," the report says. Furthermore, the present system will not pick up the diversion of nuclear material quickly enough: "A skilled diverter [could] have constructed an explosive device before the system can reach a conclusion that diversion has taken place".

A major recommendation is that the federal government should establish a special security force to guard nuclear materials in transit and for "all protection functions which could require the use of force". The study also recommends that the commission should forge strong relationships with the Central Intelligence Agency and the Federal Bureau of Investigation to make sure that those agencies are devoting sufficient resources to the problem of nuclear theft.

The whole issue of nuclear safeguards is rapidly building into a potent weapon in the hands of nuclear critics in the United States, particularly in respect of plans to build a string of plutonium-producing fast breeder reactors around the country. In response to such criticisms, Representative Melvin Price, chairman of the powerful Joint Committee on Atomic Energy, announced last week that his committee has launched a special review of the matter and will be holding some hearings later this year.

AFTER years of debating the construction of nuclear power stations, a proposition always vetoed by officials in the Finance Ministry because overseas experts assured them that power generated by conventional plants would be far less expensive in the foreseeable future, the Israeli Government has decided to put all its eggs in the nuclear basket.

Minister of Commerce and Industry Haim Bar-Lev has announced that from 1980 onwards, every power station built will be nuclear. The 1970s will see the construction of Israel's last new conventional power plant and her first nuclear one with a power-generating capacity of 600 MW, expected to be completed by 1982, when total national capacity is expected to be 4,200 MW.

An international tender for construction of the nuclear power station

## Israel's nuclear plan

*Nechemia Meyers, Rehovot*

will be issued later this year by the Israel Electric Corporation, which has been charged with construction of the plant; the Israel Atomic Energy Commission, which operates the country's two existing research reactors at Sorek and Dimona, will be responsible for ensuring stringent safety standards.

While some locally-made equipment will be used, reactors will almost certainly be bought from the United States, and a representative of General Electric, Asher Engler, has stated that his company is willing to provide the required enriched uranium for the first few years of operation but that future supplies of the strategically important material would depend on an agreement between the governments of

Israel and the United States. Uranium could be extracted from phosphates from the Negev Desert, using locally developed methods, but it would still have to be enriched abroad.

Israeli environmentalists say that if Israel must have atomic power stations, they should be located in the furthest depths of the Negev, but the parched southern half of Israel lacks the large quantities of water required by nuclear power facilities for cooling purposes.

Whatever the validity of their arguments, the environmentalists have little chance of influencing government policy on this project. The first nuclear power station will soon be going up, probably near the new Mediterranean port town of Ashdod. If all goes well, there will be seven more by the turn of the century.