delegation and the congressional advisers. Fresh from the midterm elections, Democratic Senators Hubert H. Humphrey, George McGovern, and Dick Clark arrived in Rome and began pressing the delegation to increase the commitment of U.S. food aid by 1 million tons, for immediate use in famine areas. In this they were finally unsuccessful, but not before making plenty of sound political capital and provoking Earl Butz, head of the dele-

gation, to a spirited defense of the Administration's position.

The three Democratic senators, said Butz, had put the American nation "in a stance of being reluctant to go along with food aid" which was not true at all. The Administration was reluctant to offer more than it already had because of budget restraints, the likely impact on grain prices at home, and the simple availability of grain.

All this was good knockabout stuff

for home consumption, but had little to do with the conference, which had not even been called to discuss the immediate problems. These have been handed over to a group of major exporters and importers of grain who were involved in a series of meetings with Addeke Boerma of FAO at Rome. Little really hard information emerged from these meetings, but the general impression was that the "gap" between supplies and expected demand for

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#### Inventor's Suit Could Break New Ground

A David and Goliath type struggle, now under way in California in the form of a lawsuit between one of the nation's corporate giants and an immigrant inventor, could set a precedent in strengthening the rights of inventors to privileges and royalties resulting from their patents.

The suit has been brought by MCA Discovision, Inc., a division of the giant entertainment business, MCA, Inc., against a former employee, Manfred H. Jarsen, who came to the United States from East Germany, was educated as a chemist, and subsequently went to work for the company. Lawyers for Jarsen say that their defense of him, if successful, could prove an important test of the so-called preinvention assignment agreement which Jarsen signed with MCA Discovision when he was hired. By extension, the suit could test similar arrangements in many other companies, since nearly all inventors sign such agreements when they are employed.

The details of the suit are sealed by a Los Angeles Superior Court judge from public disclosure, but it is known that the dispute revolves around several pending patent applications in Jarsen's name which relate to a device known as a video disk system. This is a machine which enables home TV sets to play full-length movies using inserted disks.

Video disk systems are believed by many in the industry to be the next major breakthrough in the trade, and one which will boost the business in the 1970's the way color TV did in the 1960's.

A heated corporate race is now being run between MCA, Inc., Zenith, RCA Corp., and others to see who will be first with a system for the mass market. But last fall, MCA appeared to be well in the lead because it signed a long-term agreement with the giant Dutch conglomerate, N. V. Philips, to build and market video disk systems. At that time, it announced that it could market its laser-based system as early as 1976 for as little as \$500. The company also plans to market a line of individual disks priced from \$2 to \$10, which will be based on the extensive film library of MCA's movie subsidiaries such as Universal City Studios, Inc.

Hence, Jarsen's patents could be part of a major industry development. And the outcome of the suit could determine who, in the long run, makes a great deal of money. If Jarsen is successful, according to his lawyers, he will retain the privilege of negotiating a licensing agreement with MCA or any other company and in return be entitled to a share of the royalties. MCA is contending, however, that the patent rights fall under the terms of his preinvention assignment agreement with the company.

Alan C. Nixon, a former president of the American Chemical Society who has been involved in the cause of industrially employed scientists, says that most preinvention assignment agreements give everything resulting from a patent to the company and, in return, the inventor gets \$1 in cash. Only rarely, he says, is the inventor offered pay increases or stock options. "The mechanism to achieve a better break for inventors would be a different type of assignment agreement," Nixon says. If Jarsen is successful in retaining his rights, other inventors might, so to speak, follow suit.—D.S.

# GAO Calls Security Lax at Nuclear Plants

Existing security systems at nuclear power plants are insufficient to prevent a "takeover for sabotage" by as few as two or three armed attackers, the General Accounting Office has told the Atomic Energy Commission. The GAO, an investigative unit of Congress, said that storage areas for spent nuclear fuel seemed particularly vulnerable as a potential target for saboteurs. The spent fuel, made highly radioactive by waste fission products, is usually stored in pools of water inside concrete buildings but outside the huge containment dome that covers a nuclear plant's reactor.

"A takeover, particularly of a nuclear power plant near a large metropolitan area," the GAO said, "could threaten public health and safety if radioactive materials were released to the environment as a result of sabotage."

The agency acknowledges that experts disagree on the vulnerability of nuclear plants to sabotage, and it notes that the AEC intends to complete studies defining this vulnerability by next June, at which time some 60 nuclear power plants will be licensed to operate in the United States. Meanwhile, the GAO is strongly urging the AEC to improve plant security.

The GAO's report consists of a fivepage letter to AEC chairman Dixy Lee Ray dated 16 October, but not made public until 20 November. The AEC said it was studying these questions.

GAO officials said they based their conclusions on visits to nine nuclear plants at five locations (which were

emergency food aid could be met.

Looking further ahead, good agreement was reached on forward planning of food aid for the next 3 years. All the major producers, including the United States, the European Economic Community, Australia, and Canada, accepted a target of 10 million tons of food aid for each of the next 3 years, thereby providing the worst hit among the developing countries with at least a safety net. Only Britain's

voice was raised against the idea of planning food aid in advance. One of the U.K. delegation suggested that it might reduce the incentive for poor countries to become self-sufficient, but this was not an argument which found any support.

The developed countries go their way very easily on the question of reserve stocks. Everybody accepted that they had now fallen to a dangerously low level and should be built up

again as quickly as possible. A potential source of conflict was exactly what form the stocks should take, but the United States and Canada quickly made it clear that they were only prepared to discuss nationally held stocks with some element of international coordination. The idea of a large internationally held stockpile sent shivers through the major grain producers, particularly Canada, who remember how easily a large stockpile can depress

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not disclosed) between February and May of this year. At several plants, investigators found unlighted security fences, unlocked outside doors, unarmed watchmen, and a lack of intrusion alarms.

These specific weaknesses are being corrected, the GAO said. But they appeared to reflect a more general laxity in security traceable to vagueness in security policies laid down by the AEC. Within the past year the AEC has taken steps to require more sophisticated security systems at all nuclear facilities. But the new regulations currently have failed to make clear who is responsible for defending nuclear plants.

For example, the GAO noted, AEC regulations require utilities to handle a variety of threats up to and including those posed by "a small group of discordant individuals." The regulations also say that any "deliberate assault by trained paramilitary groups" will be the government's responsibility. But the GAO found that utilities have not been told how to distinguish between "discordant individuals" and trained terrorists.

For its own part, the AEC has made no specific arrangements with the Defense Department or the Federal Bureau of Investigation to respond to paramilitary attacks on nuclear plants. Nor has the commission required utilities to make similar arrangements with local police.

The worldwide rise of political terrorism has aroused concern over nuclear plant security, and so has an imminent shortage of nuclear fuel reprocessing capacity in the United States (Science, 30 August). Problems in building new reprocessing plants mean that utilities will have to store more spent fuel, and longer, than anticipated. "This situation," the GAO said in its

letter to the AEC, "increases the potential consequences of successful sabotage of the used-fuel storage facilities at [nuclear] plants."—R.G.

# RANN Remiss in Reporting out Results

The National Science Foundation's program of Research Applied to National Needs (RANN), which has been widely publicized as a generator of scientific solutions to urgent national problems, is grinding out reports which "gather dust on the back shelf of an NSF bureaucrat," according to Senator William Proxmire (D—Wis.).

"NSF has done distressingly little to make certain that the findings [of RANN research] are widely disseminated," Proxmire commented in releasing a letter he wrote to NSF director H. Guyford Stever on 1 November. "Even if the results of these unevaluated projects could be of great value, very few potential users would know about them."

Proxmire cited NSF's failure to circulate RANN research results as one of a series of "glaring deficiencies" in NSF's internal management which he blasted in his letter to Stever. Another deficiency came to light, he said, when his staff checked to see whether other federal agencies were aware of proposed or ongoing RANN projects or had been allowed a chance to check whether the proposed work overlapped with research under way in other agencies. NSF has advertised the RANN research projects as being very carefully selected so that NSF can make unique contributions. But Proxmire's staff contends that the panels charged

with coordinating RANN's work with that of other agencies are virtually defunct. Panel members from other agencies said that one panel had not met in a year and a half; others said they had not heard of work that RANN was doing in the fields of expertise of their agencies; a transportation official said he had heard of a transportation study RANN was carrying out, but had had no chance to make an input into the original proposal before it was funded.

A third management defect, according to Proxmire, and one not limited to RANN, is the failure of NSF's auditors over the last 5 years to make "program evaluations" instead of more limited audits of dollars-and-cents transactions. Proxmire, noted that the General Accounting Office asked NS. auditors to do this in 1969, and again in 1973; but only one such program audit has been made. He asked Stever for a review of what NSF plans to do about these problems by the first of the year.

Proxmire made his letter to Stever public the same week he sent it to the NSF; in return NSF has released its reply to him. Stever said that NSF had been busy with the "unusual demands" of coordinating federal solar and geothermal energy research, and this had caused the declining use of RANNagency coordinating panels. He also replied that NSF makes program evaluations through other offices and committees outside of the financial audit group. Stever promised a longer reply by January, but this will probably not thwart the senator's criticisms. Proxmire has already said that he will crossexamine NSF witnesses closely on these matters when his committee—on HUD, Space, Science, and Veterans-of the Senate Appropriations Committee holds hearings next spring.—D.S.