

is a health risk has mounted. For example, it is now clear that the compound is an animal carcinogen and many scientists believe it is a potential human carcinogen. Attorneys for Massachusetts were barred from presenting this new data at the trial because it was ruled irrelevant to the state's decision two years ago.

—**Marjorie Sun**

## Super Phénix Unscathed in Rocket Attack

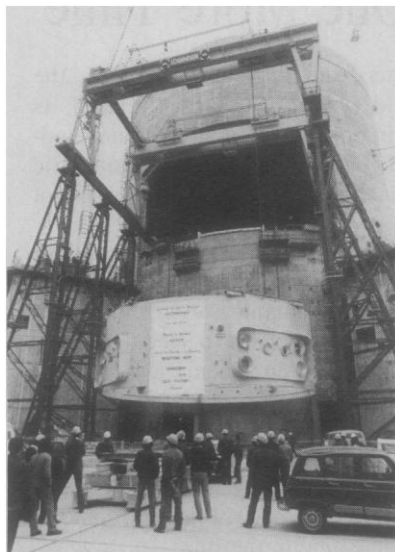
French detectives have launched a manhunt near Lyon in southeastern France to find the person who fired five rockets at the jewel of the nuclear energy program, the sodium-cooled plutonium breeder reactor known as the Super Phénix. The shots were fired at the reactor, still under construction at Creys-Malville, from a point across the Rhone River at around midnight on 18 January.

According to a spokesman for the French nuclear agency in Washington, Bertrand Barré, the police still have no suspect and few clues. One man, who would not identify himself except to say he represented a group called the Pacifist and Ecologist Committee, telephoned a news agency to claim responsibility. He said the damage would "cause an enormous delay in the construction of the plant, which was our objective. We were not trying to be spectacular for the sake of it, but to delay the building of this monstrous object and make people think—so that the nuclear debate will start again in France."

When the Mitterrand administration came into office in May 1981, the government's nuclear construction program was put on hold for a review lasting several months. Work has resumed now on most reactors.

Barré says the attack did little damage to the Super Phénix, which will be the world's first large-scale plutonium breeder. There will be no delay in the operating schedule, he says. Full power (1200 megawatts) testing is supposed to begin late in 1983 and regular operation should start in 1984.

The rockets and launcher were of Russian design, intended for use against armored tanks. According to French authorities, the launcher was a



Jean Guichard

**Super Phénix before the attack**

type made by the Soviet Union in the early 1960's, and was in mint condition. The shell casings bore Cyrillic characters, suggesting they were Russian-made.

The effect of this type of rocket, Barré says, is like that of a torch—good for penetrating steel but ineffective against concrete. Two shots hit the wall of the steam generator building; one hit the main reactor building; one hit a metal crane outside the building; and one went through an opening in the side of the reactor building, hitting a crane inside. Apparently all five were aimed at this opening, through which the reactor vessel was being installed. The reactor, already in place, was not damaged. There was no risk of radiation escape, for the fuel had not been delivered. However, the rockets could have touched off an intense fire had they hit the supply of sodium stored at the site. A rocket fell near one worker, but did not injure him.

Nothing is known about the person or group claiming responsibility. French environmentalist organizations have denounced the attack.

The French government has not taken any measures to increase police protection around nuclear plants. Barré speculates that a purpose of the attack may have been to force the government to step up security at this and other plants. "The internal logic of terrorist strategy," he says, "is to create a situation in which more police are required—and then to say that nuclear power is not compatible with democracy." —**Elliot Marshall**

## Math Meeting in Poland Questioned

The military crackdown in Poland has thrown into confusion plans for a major international scientific meeting. The International Congress of Mathematicians, an event held every 4 years at which the prestigious Fields Medals are awarded, is scheduled to take place in Warsaw at the end of August. It may not be possible to hold an international meeting in Poland this year, however, and some mathematicians are pushing for a change of venue.

George D. Mostow of Yale University, who is chairman of the U.S. National Committee for Mathematics and who selects the head of the U.S. delegation to the congress' general assembly, explains that mathematicians are in a quandary about what to do. "So far, there are no plans in place for holding the congress at an alternate location. There are divided feelings on planning an alternative," he says. Some mathematicians want to go ahead and meet in some country other than Poland. Others believe that Polish mathematicians should be consulted about the matter. According to Ronald L. Graham of Bell Laboratories in Murray Hill, New Jersey, who is a member of the U.S. National Committee for Mathematics, a number of U.S. mathematicians feel that the congress could provide a rare opportunity for Polish mathematicians to meet with colleagues from other countries. Lennard Carleson of the Mittag Leffler Institute in Sweden, who is president of the international congress, hopes to visit Poland and assess the feasibility of holding the meeting there, Mostow says.

Of course, if mathematicians wait too long, they may not be able to find an alternate site to house the 5000 or so persons who plan to attend the meeting. If that happens, says Mostow, "I think there would be a very strong sentiment to publish the proceedings even if there is no meeting." The question of where to hold the congress, Mostow concludes, "is an issue that is of great concern to the mathematics community and people are wondering about it. But it is too early to say what will happen."

—**Gina Kolata**