NRC Faults Utility, Delays Reactor Start-up

No fine could have been harder on the owner of the Salem-1 nuclear plant than the action taken by the Nuclear Regulatory Commission (NRC) on 14 April. The agency refused to allow the reactor to be restarted. Salem, owned by New Jersey's Public Service Electric and Gas Company, failed to shut down twice in February when a safety circuit breaker stuck open (*Science*, 15 April, p. 280). The plant has since been closed while the NRC investigates, costing the company about $330,000 a day.

At the meeting on 14 April, the NRC staff recommended that the utility be permitted to turn on the reactor, because improvements in management and hardware have been made since the incident in February. But the commissioners did not agree. To the apparent dismay of company officials in the audience, the NRC decided to postpone action on Salem for at least a week.

While no formal vote was taken, three of the five commissioners—John Ahearne, James Asselstine, and Victor Gilinsky—blocked a restart when they said that questions about the fitness of the company to operate the reactor had not been fully answered. In particular, they wanted the staff to confirm that proposed changes in training had been carried out, and that top management understood the seriousness of its mistake in allowing standards to slip.

The audience stirred when Gilinsky said that if this had happened in Japan, the company's top executives would have resigned. "We need a change of style at corporate headquarters," he said. He also suggested that the NRC should consider whether or not the company was fit to hold an operating license. One utility executive muttered afterward, "It was devastating. They don't want a pound of flesh; they want 5 pounds."

The NRC staff also came in for some criticism because of its failure to secure precise evidence of what had gone wrong at Salem. It came out in the meeting that the staff never had examined the parts that actually failed. They had been shipped to the manufacturer, Westinghouse, before the NRC investigators had a chance to see them.

The majority wanted to hold up its decision on restarting the reactor until they had decided what enforcement action or fine would be imposed. Chairman Nunzio Palladino said he expected that the enforcement and restart decisions would be made within a week.—**ELIOT MARSHALL**

Ohio State's Telescope Given Stay of Execution

An extraordinary rescue mission may have saved Ohio State University's radio telescope from being torn down to make way for a golf course. The telescope is "off the critical list, but still in guarded condition," says George Foster, an Ohio businessman who has played a key role in keeping the instrument alive.

Although the telescope itself is owned by Ohio State, the land on which it sits was owned by Ohio Wesleyan University. Earlier this year, Ohio Wesleyan sold it to the Delaware Country Club as part of a 260-acre tract that the club wanted for an extension of its golf course and for residential development (*Science*, 18 February, p. 821). Ohio State's lease, which expires on 31 August, was canceled, and the new owners wanted the telescope removed from the site.

Negotiations between Ohio State and the country club got nowhere. Then Foster stepped in. An engineer who has launched four companies, Foster got together a Committee to Save the Telescope, consisting mostly of local businessmen.

The committee first explored the possibility of moving the telescope to another site—several were offered—but found that the only helicopters capable of lifting sections of the instrument are built in the Soviet Union. Then, on 2 April, committee members met with representatives of the country club and "reviewed ways in which the telescope could enhance their operation," says Foster.

Although he declines to discuss specifics of how an instrument the size of three football fields could enhance a golf course and residential development, Foster says the upshot of the meeting was that the golf club has agreed to extend the lease beyond the 31 August deadline. Foster hopes a permanent settlement can be worked out by the end of the year.

Why did Foster come to the rescue? He says he has worked for the past 18 months on a task force looking at ways to bring high-technology industry into Ohio. "It sure isn't going to help when we knock down a world-renowned facility for a golf course," he says.—**COLIN NORMAN**

Communications Satellite Rescue in Real Jeopardy

The National Aeronautics and Space Administration (NASA) has revealed that the chance of rescuing a critical communications satellite may be lower than it previously stated. The satellite, which was launched from the space shuttle Challenger on 5 April, was placed in the wrong orbit by a malfunctioning booster rocket (*Science*, 22 April, p. 385).

Officials at NASA and at TRW Inc., where the $416-million satellite was designed, initially thought that the satellite was deployed intact, and that small thrusters could be used to correct its orbit by late April. Subsequently, they discovered that two of the thrusters were inoperable, apparently because they were struck by the booster after it separated from the satellite. "Possibly they broke off," says Ronald Browning, the satellite program manager at NASA's Goddard Space Flight Center.

The damaged thrusters are supposed to control the satellite's roll. Previously, NASA said that at least one functioning thruster would be needed for the orbit correction. Officials at Goddard and NASA's satellite communications center in White Sands, New Mexico, are now trying to devise a way to correct the orbit without the thrusters. No decision will be made until early May. "I wouldn't venture to estimate the probability of success," says Browning.

There is also some concern that additional thrusters, used to control the satellite's pitch, were damaged, as well as the satellite's thermal insulation—although this is as yet unproved. Both the insulation and the additional thrusters are located near