

# Nuclear Regulation Under New Management

*The departure of commissioner Victor Gilinsky may make the NRC less contentious, but it will not lessen the nuclear industry's problems*

In July President Reagan cleared the last Carter holdover from the Nuclear Regulatory Commission (NRC), replacing commissioner Victor Gilinsky, viewed by many industry people as an adversary, with a low-key admiral from the nuclear navy, Lando Zech, Jr. Now the regulatory beast called NRC will have five heads appointed by Reagan.

But the five heads will not necessarily think alike or cooperate to get the nuclear industry out of the financial bog in which it is stuck. On the contrary, if there is any merit in an analysis offered by Gilinsky as he departed, the pros-

birth of the agency (Gilinsky was 41) when Congress carved the NRC out of the old Atomic Energy Commission (AEC). The split-up was meant to separate safety regulation from the nuclear promotion role of the federal government. Gilinsky, who headed the RAND Corporation's physical sciences division, came to the NRC with a recommendation from former RAND executive and AEC chairman, James Schlesinger.

In recent years, Gilinsky has been the most senior of the NRC commissioners, the only one in office since the ordeal of Three Mile Island. In fact, he was the

along with Gilinsky's sense of public relations, sharpened his dissenting views.

Recently Gilinsky had become a kind of alternative NRC chairman. He regularly disagreed with Chairman Nunzio Palladino's plans, winning a commissioner or two to his side in key votes. Palladino, a former Westinghouse reactor designer and dean of engineering at Pennsylvania State, was appointed to the NRC in 1981, as was Thomas Roberts, a navy engineer who was president of the Southern Boiler and Tanks Works of Memphis, Tennessee.

Reagan's third appointee to the NRC, James Asselstine, came to the NRC in 1982 bearing some heavy freight. A former legal counsel to mostly pro-nuclear Republicans on the Senate Environment and Public Works Committee, Asselstine was expected to join the other Reagan appointees in tipping the balance of votes toward industry. That did not happen. From his first day in office, he seemed intent on demonstrating independence. His regard for procedural correctness often put him in Gilinsky's camp. In 1983 and 1984 these two commissioners frequently were at odds with the chairman.

For a short time when one seat was vacant, there were paralyzing 2-2 splits on the commission, until the fourth Reagan appointee, Frederick Bernthal, came aboard in August 1983. A former chemistry and physics professor and aide to breeder reactor fan Senator Howard Baker (R-Tenn.), Bernthal has been more sympathetic to the NRC chairman's agenda, but not wildly so. Until recently the agency still seemed to decide issues with less than resounding certainty.

The low point in NRC relations came last spring when Palladino sought to deal in a crisis fashion with the problems of the Shoreham nuclear plant, owned by the Long Island Lighting Company of New York. The utility is close to bankruptcy, weighed down by cost overruns and delays at Shoreham which it cannot recoup through charges to electric customers. It hoped to rescue itself by getting the plant on line and adding its nuclear costs to the rate base. But Suffolk County and the state of New York have refused to cooperate in emergency

## NRC as it was

*The five-member commission before Victor Gilinsky (fourth from left) was replaced in July by Lando Zech. Other commissioners are, from left, Frederick Bernthal, Thomas Roberts, Nunzio Palladino (chairman), and James Asselstine.*



pects for the industry will not improve until the bog itself is drained and the nuclear utilities improve their own methods of management. The NRC also needs reform, Gilinsky says, but simply streamlining the NRC will not improve the commercial situation. Industry leaders have come to recognize this.

For example, the Atomic Industrial Forum recently published a report recognizing the need for change, *Nuclear Power in America's Future*, that tacitly concedes some points Gilinsky has made. The report says that nuclear companies should try experiments to restore investors' confidence, including using fixed-price agreements to control plant costs, writing penalties and rewards into construction contracts to improve performance, and forming joint ventures to create multisite, competent nuclear generating companies. The report also calls for a presidential commission to look into the health and future of nuclear power.

Gilinsky left the NRC on 30 June. His double term there began in 1975 at the

acting chairman on that March afternoon in 1979 when operators at Metropolitan Edison, the utility on the Susquehanna River, wrecked their reactor. His participation in the fix-up activities gave him an insider's grasp of NRC precedent and protocol.

Gilinsky was not overawed by specialists but did have an unusual appetite for technical detail, according to a former agency staffer, Angelo Giambusso, now a vice president for the Stone and Webster reactor design company. "He really dug in," Giambusso says. During his extended service on the Commission, Gilinsky made scores of visits to operating plants, carrying a floor plan to help him understand how all the parts fit together. "It took me years to figure out how they worked," says the ex-commissioner.

Gilinsky had no clear institutional loyalties but developed a rapport with anti-nuclear groups and nuclear skeptics on Capitol Hill like Representatives Morris Udall (D-Ariz.) and Richard Ottinger (D-N.Y.). This extramural support,

planning, and this has held up approval of the operating license. In addition, there has been a new move to deny Shoreham's start-up low-power license, based on the fact that its emergency electric power generators have a bad record of performance. Gilinsky played a key role in highlighting the problem.

In March, Palladino sought to expedite proceedings on Shoreham, meeting privately with the administrative judge handling the case and arranging with the judge to have a special new review group created. A tight schedule was set out. Suffolk County objected. Gilinsky wrote what one congressional staffer called an "extraordinary" letter to Congress, "inviting us to come in and pull down the NRC's pants in public." Representative Edward Markey (D-Mass.), chairman of the Interior Committee's oversight and investigations subcommittee, did just that. He asked for NRC internal documents and transcripts on the Shoreham case. After first refusing to turn them over, Palladino complied.

The meeting transcripts and NRC memos revealed that Gilinsky and Asselstine strongly disagreed with Palladino's procedural approach, which they felt went against the NRC's ex parte rule that forbids commissioners from talking privately to the staff about matters under adjudication. Citing this documentation, Suffolk County has now demanded that Palladino recuse himself, arguing that he showed a bias in favor of the utility. Asselstine strengthened the county's case by testifying on Capitol Hill that a neutral observer might well draw the conclusion that Palladino has shown bias. The Shoreham issue and the request for recusal are still pending and knotted in a rat's nest of intertwined petitions, investigations, economic threats, and politics.

With Admiral Zech newly installed on the commission and Gilinsky out, the White House hopes that these ructions will die down. Once again, there are even expectations that the NRC will change its ways and become a smooth-running processor of license applications. It might. For example, in a post-Gilinsky action on 26 July, the NRC voted soundly (4 to 1) to reverse the implications of a decision taken in May that would have narrowed the NRC staff's discretion to grant exemptions from safety rules. The effect is to signal that the staff may grant exemptions, even if doing so cannot be said to keep the plant "as safe as" it would have been otherwise. Asselstine was the lone dissenter.

Gilinsky's challenges to the industry

## Koshland Named *Science* Editor



Daniel E. Koshland, Jr., has been selected by the AAAS Board of Directors to serve as editor of *Science*. A professor of biochemistry at the University of California at Berkeley, Koshland will assume editorial responsibilities on 1 January 1985, succeeding Philip H. Abelson, who has been editor since 1962. Koshland is chairman of the editorial board of the *Proceedings of the National Academy of Sciences*, a post he will relinquish before assuming the editorship of *Science*, and has served on the editorial boards of *Accounts of Chemical Research*, the *Journal of Biological Chemistry*, the *Journal of Molecular Biology*, and *Science*. He will continue his research at the University of California, devoting about half his time to *Science* and half to research and university duties. Abelson will continue his affiliation with the AAAS as science adviser to the association.

were controversial, but he claimed they were also good for the long-term survival of nuclear power. He argued that an active NRC, dedicated to ferreting out problems, would be more helpful than a passive agency eager to rush plants to approval. An alert agency could help executives find and correct troubles early on, forestalling the kind of disaster that will cost the Three Mile Island utility \$1 billion to clean up. Gilinsky put this idea into practice by hiring experienced reactor operators as staff advisers, conducting his own investigations, and chasing mistakes to their source. He urged utility managers to follow his example.

At times his investigations duplicated—Gilinsky would say, enhanced—the work of the cumbersome NRC staff. They disturbed the industry for they put individual companies on the spot and seemed to create new problems. An example is the new alarm that began this spring over Shoreham's diesel generators for emergency power.

Gilinsky says that his assistant discovered a serious equipment flaw that had been missed by all the monitoring systems used since Three Mile Island because none of them check for quality by brand name. A particular make of diesel, Transamerica DeLaval Inc., appears to have had an unacceptably high rate of failure at Shoreham, which would rely on these diesels for power during a blackout. Nuclear plants are critically

dependent on electricity to run control systems. Two other plants—Grand Gulf in Mississippi and Catawba in South Carolina—depend on this brand of diesel as well. This problem has now been added to the NRC's crowded agenda.

Plant builders tend to blame their problems on the NRC system, which in their view encourages critics to litigate small flaws in hardware and procedure. Some industry people saw Gilinsky as an ally of the professional fault-finders. The weakness of such complaints is that the construction problems have not been small nor isolated, and some of the procedural errors have been colossal.

Consider the case of the Grand Gulf plant, owned by the Mississippi Power and Light Company. After hastily approving a low-power license in 1982 for this huge system (1250 megawatts), the NRC discovered it had licensed a "non-existent reactor," in the words of a critic. The technical specifications on which the license was granted were those of another, older reactor. The utility submitted them as a substitute for the real specifications, which it did not have in hand. Thus, the license description was false, differing from the actual plant in hundreds of details. As a result, the utility has been going through a costly 2-year patch-up program to bring its reactor and license into agreement. The company also hired new managers. The irony is that there were no antinuclear "inter-

venors" in this case. Perhaps if there had been, the license would have been done properly.

In recent speeches and articles, Gilinsky has stressed the problem of "too many learning curves"—his term for the fact that the U.S. nuclear industry has educated itself in a highly fragmented way. In a style typical of U.S. innovation, the nation opted for individual choice and booming variety in nuclear power during the 1960's, not controlled development. Thus, utilities supported at least two fundamentally different reactor systems, employed four different reactor designers, erected scores of custom-tailored plants, and educated construction crews who in many cases had no previous experience in building a nuclear plant and would have no second chance to apply the skills they learned.

Gilinsky says this indulgence in experimentation and education might have made sense if the nation had gone forward with the original plan for nuclear power, which envisioned 1000 plants in operation by the year 2000. But instead, in an age of energy conservation, the nation has bought itself a lot of costly expertise and one-of-a-kind generating systems. Even now, there is a risk that valuable information that could be gleaned from these trials and errors may be lost out of a desire to hide mistakes.

Some say that it was Gilinsky's style, not his substance, that bothered the industry. Many were upset by his statement in 1983 that the chief executives of General Public Utilities, owner of the Three Mile Island plant, had demonstrated such incompetence that they should resign. "That may have been too personal," says one White House aide. Giambusso of Stone and Webster notes that while Gilinsky was an "intense critic," he raised good questions that others put aside, and "a lot of the issues he raised were substantive."

Zech, Gilinsky's successor, is a 61-year-old retired vice admiral, former chief of navy personnel, former deputy navy congressional liaison, and a nuclear submarine commander. A navy friend describes him as "a high-standards, low-key kind of gentleman." A White House aide says: "He's well respected in the naval community and Congress," and, rare person, is said to be an experienced manager without enemies.

Zech's name was put forward by retired Admiral E. P. "Dennis" Wilkinson, until recently director of the Institute of Nuclear Power Operations in Atlanta, an industry outfit that polices nuclear plant construction and operations. "Wilkinson spoke to the utilities

Eliot Marshall, a senior writer on the News and Comment staff, has been awarded a John S. Knight fellowship at Stanford University. He will be on leave from *Science* until July 1985.

and trade organizations, and a consensus built around this man reasonably quickly," says the White House aide. "Lando stood out for a number of qualities, one of which was leadership potential. We're hoping to see that flourish." There is talk that if Zech proves to be as capable a leader as the Administration hopes, he could become the next NRC chairman, perhaps even before Palladino's term is up.

For expedience, the White House installed Zech during the 4th of July congressional recess, taking advantage of a constitutional loophole that allows the President to bypass confirmation hearings when Congress is out. The use of this gimmick means Zech can serve only until the end of next year, unless confirmed.

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Nuclear advocates hope, without voicing it loudly, that the admiral will be as influential in building confidence in nuclear power as Gilinsky was in raising questions. For 3 years the industry has enjoyed a sympathetic Administration in Washington and simultaneously taken a beating in the press and the marketplace. It is a bitter paradox for those who hoped that President Reagan's thrust at deregulation would include and possibly revive the nuclear industry.

The view that the NRC is itself the source of trouble persists among utility companies and is reflected in the treatment given the commissioners by the House energy appropriations subcommittee, headed by Representative Tom Bevill (D-Ala.). At the annual budget review on 22 March, Bevill said: "In the 1990's we will not have adequate power in this nation, and my allegation is that the NRC has played a big role in making that condition exist . . . the Nuclear

Regulatory Commission has almost destroyed the nuclear industry."

Among nuclear advocates there is a feeling that Palladino let the side down by not keeping the NRC under tighter control. One nuclear lobbyist said, for example, that the chairman has not exercised the scope of executive authority given him by law. But Palladino defended his own record at the Bevill hearings, saying: "Sir, we haven't stopped plants unless they deserved to be stopped. . . . The problems that industry gets into are real, and when the concrete is not being poured properly, when it is not being cured properly, I don't think you want the plant built that way, nor does the utility." He also spoke of steps taken to lessen the regulatory burden on industry, such as setting up a screen for safety "backfit" requirements.

However, several commissioners told the Bevill subcommittee that the agency is in need of a more drastic overhaul. Gilinsky agreed that the NRC is "too unwieldy" and would work better with only three members. Palladino and Roberts favored a single administrator. Gilinsky used his final appearance to make a pitch for many other changes. He advocated shifting the agency's focus away from licensing to checking on performance, since no new plants have been ordered since 1978. He is particularly concerned that the NRC now faces the prospect of licensing new plants that do not employ a single staffer with direct experience in running a nuclear reactor.

Gilinsky urged that the licensing and appeals boards be consolidated into the NRC main commission, simplifying the "overly legalistic" hearing processes. He said that the staff should no longer be asked to serve as a party defending applicants in licensing proceedings. This would do away with the ex parte rule that often bars communication between commissioners and the staff. Gilinsky added that the NRC staff needs "new blood" to counter "stagnation and unreceptiveness to new ideas." The agency "has difficulty in focusing on the important questions," with the result that "respect for the commission has declined."

Many who agree with that final comment would not agree with Gilinsky's specific prescriptions. But there is a possibility that the situation has become bad enough to bring competing interests together for the common purpose of raising the quality of nuclear plant regulation and construction. Not much is going to happen before November, Administration aides say. But regardless of who wins the election, the NRC may be in line for renovation.—ELIOT MARSHALL