emy's credibility is questioned in case it comes out on the positive side of Ward Valley," says Ina Alterman, NAS staff officer of the New York and Ward Valley studies. Jonathan Singer, a UCSD biologist who signed the letter to Alberts and remains concerned about the question of bias, acknowledges that the group provided the impetus for the letter.

The organization's president, Daniel Hirsch, denies a central role in organizing the campaign, but says the academy favors the nuclear industry in its selection of board and panel members. He asserts that only two of the 17 Ward Valley panel members have done consulting work for environmental groups on the effects of toxic or radioactive waste disputes and that many have received grants for work that is sympathetic to industrial concerns. Alterman disagrees with that assessment. "They ask for balance, but balance to them means opposition," she says. Alterman herself has come under criticism from environmental groups, who cite her previous work at the Nuclear Regulatory Commission.

The board's most recent chair, Chris Whipple, has also drawn the ire of state officials and environmentalists. Whipple, who stepped down from the job last month after a 3-year term, is a former executive with the Electric Power Research Institute (EPRI) in Palo Alto, California, which is funded by a consortium of electric utilities, "Having the chair of the NAS Board on Radioactive Waste Management [come] from the nuclear power industry is like placing the head of the Tobacco Institute in charge of an NAS board on the risks of smoking," Luster wrote. Whipple notes that the panel, not the board, is writing the New York report, and that most of his work at EPRI was focused on non-nuclear issues.

NAS Executive Officer William Colglazier says Alberts asked him to review the makeup of the board and panels recently, and that his investigation revealed no evidence of bias or conflict of interest. Impartial experts can come from industry or government agencies, he says.

In addition to their unhappiness over individuals, Boxer and the other lawmakers have criticized the NAS panels for conducting much of their work behind closed doors and for failing to make public conflict-of-interest and bias disclosure forms. Colglazier says the panels have followed standard operating procedure: Many meetings are closed to encourage open debate, conflict-of-interest forms are not released because of privacy concerns, and panelists are carefully screened. To make the point, Alberts even sent Boxer a booklet last year explaining the process.

The debate over potential dump sites promises to continue, as does the controversy over whether the NAS panels can be impartial. The answer, both sides agree, will be contained in the forthcoming reports.

-Andrew Lawler

## NATIONAL ACADEMY OF ENGINEERING

**President-elect Liebowitz** 

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## In the U.S., Engineers Oust Old Regime

The anti-incumbent mood that blitzed Congress last November is spreading. Now it seems to have hit one of the nation's top scientific societies—the National Academy of Engineering (NAE). In a narrow upset last week, NAE members turned down a candidate for president—Cornelius Pings—who had been hand-picked by the leadership's nominating committee. Instead, by a slim margin of 697 to 660 votes, members elected Harold Liebowitz, a candidate campaigning on a promise to break up the "old boys' club" that he claims dominates the leadership.

This is the first time in the NAE's 31 years that the membership has turned down the nominating committee's choice.

Yet the NAE's "new" blood has actually been a part of the very leadership he decried; Liebowitz has served on NAE's governing council and was home secretary for two terms (1978–1984). Nonetheless, Liebowitz has pledged to change the way the NAE does business, although how this will

come about remains unclear, as the president-elect says he's just beginning to work out his plans in detail.

The campaign was—by the usually placid standards of NAE—a noisy battle, at least on one side. Liebowitz, former dean of engineering at George Washington University in Washington, D.C., conducted what many describe as an aggressive and well-organized run for the leadership post. "There was much more campaigning going on this year than in any election I can remember," says Roland Schmitt, NAE member, former president of Rennselaer Polytechnic Institute in Troy. New York, and former chair of the National Science Board. In addition to official ballot material, members say they received from Liebowitz a self-profile, a campaign platform, a copy of a flattering article in Science & Government Report, and endorsements signed by J. Fred Bucy, former chief executive of Texas Instruments Inc., and other prominent engineers.

By contrast, Pings "didn't really campaign at all," says one supporter. His avowed plan was to continue the policies of retiring President Robert White, who had emphasized the need for government support of industrial innovation. Several senior members told *Science* they thought Pings's low-key campaign was just right for a scholarly society like NAE. But it didn't prevail.

And one piece of active campaigning on Pings's behalf may have backfired. Late in the campaign, members say, they received by mail an endorsement of Pings by Robert Seamans of the Massachusetts Institute of Technology. One of NAE's older members, Chalmer Kirkbride, president of the American Institute of Chemical Engineers in 1954, says the letter angered him by referring to Pings's relative youth (he is 64; Liebowitz is 70). Kirkbride fired off an endorsement of Liebowitz, urging members to challenge the "good old boys' club" and "come to the party and vote."

And the party, eventually, was a Liebowitz victory celebration. But the mem-

bership's vote remains tricky to interpret, says NAE Home Secretary Simon Ostrach, because the substantive difference between the candidates is hard to discern. Both are experienced in Washington politics. Until last year, Pings was president of the Association of American Universi-

ties (AAU). He resigned to "clear the decks" for the NAE election, says an AAU staffer, and is now without a job.

Asked about his reform agenda by *Science*, Liebowitz mentioned three points. He says he would like to "get members more involved in governance and decision-making" at NAE, gain visibility and influence for the academy, and promote engineering education. Beyond that, "it would be premature to discuss" these matters, the president-elect says, for he is "forming a strategic planning group" to grapple with the changes.

His first goal—increasing member participation—may call for some difficult grappling. Home Secretary Ostrach, a Case Western Reserve professor who calls himself a representative of the "working stiff" engineer, says he's already been trying to involve more of NAE's 1790 members on the reportwriting committees of the National Research Council (NRC). These small groups oversee studies on all manner of technical issuesfrom the design of the space station to highway building. But Ostrach points out that it's not easy to find roles for all members, because NRC committees tend to deal with current problems in technology, and older members may not be up-to-date. If those members voted for Liebowitz, however, they may now be waiting for the call from Washington.

-Eliot Marshall