tel management not to make confidential calls on his room phone. He took his telephone apart, but found nothing. A spokeswoman for the Boston Sheraton told *Science* that the hotel had no evidence that telephones were tapped. The FBI has declined to comment while the case against Zehe is pending before the court.

The society heard from the FBI again on 9 November, when the FBI requested a list of the 2600 attendees at the meeting and threatened to subpoena the list if it was not supplied. According to Edward Sickafus, the society's president-elect, the list will not be turned over voluntarily, but society officials have told the FBI that they would comply with a subpoena. Sickafus says the society could be on shaky legal ground in supplying a list of attendees without their authorization.

As it happens, Zehe was arrested on the very day that a congressional subcommittee was holding hearings on scientific communication and national security, at which several witnesses voiced fears that attempts to restrict the dissemination of scientific information through meetings and publications could be highly detrimental to U.S. science. The arrest also came at a critical juncture in the Reagan Administration's deliberations on how to restrict unclassified, but potentially sensitive, information. A Defense Department task force is now putting the final touches to regulations, and an interagency committee chaired by the National Security Council hopes to formulate draft government-wide regulations by the end of the year.

One fear is that the Administration will use the Zehe incident to bolster its arguments for tighter restrictions. The Administration has long argued that Soviet bloc spies comb through U.S. scientific conferences and publications, and now it has arrested an alleged spy at a scientific meeting. The symbolic impact of that event may be difficult to offset with the argument that the meeting contained no classified information, that it was open to everybody, and that Zehe in fact spent very little time at the sessions.

—COLIN NORMAN

NAE Seeks a Share of the Limelight

The Engineering Academy, with a renewed focus on technology and society, wants a more prominent role in the policy arena

In 1984, the National Academy of Engineering (NAE) will be 20 years old. It has 1200 members who, says NAE president Robert M. White, represent the engineering crème de la crème from industry, academia, government, and nonprofit organizations. Like the National Academy of Sciences (NAS), its parent, the NAE advises the federal government on a range of technical issues and, in the future will strive mightily to become more involved in major policy debates where issues of technology and society are joined.

White, a graduate of Harvard and MIT whose research has focused on the atmospheric sciences, sees several areas where the NAE could make its mark. Among them he cites the impact of technology on employment, the role of technology in foreign relations, health care technology, industrial productivity and competitiveness, and new approaches to engineering education.

The trouble with the NAE, as its president and many members see it, is that most people don't know what the NAE is. White, who became president last July, is direct in talking about the engineers' lack of visibility. In his first letter to the membership he had this to say:

> The National Academy of Engineering is not as well known in this country as one might expect or wish. I was somewhat surprised recently on a visit to the Hill to engage a key staffer on the House Science and Technology Committee, who was not familiar with the NAE, what it did and how it related to the National Academy of Sciences. I was equally nonplused at a recent meeting with senior executives of a major U.S. corporation to find that knowledge of the NAE was almost nonexistent.

White, a member of NAE but not NAS, is determined to take the NAE from relative obscurity to high visibility and national prominence. In an interview with *Science*, he called the fight for identity a matter of "substance not just style," which will be important in terms of the NAE's ability to play an influential role in national policy debates and to raise nongovernment funds to give it a stronger base from which to initiate programs of its own. Visibility and some financial independence will also enhance the NAE's likelihood of moving out of the shadow of the National Academy of Sciences. Reflecting his own views and those of many NAE members, White says, "We need to move out on our own where this is appropriate and not always be in lock step with the NAS."

Robert M. White

"We need to move out on our own . . . and not always be in lock step with the NAS."

Indeed, during the past couple of years, the NAE has won power within the NAS structure as, for instance, it gained nearly half of the seats on the governing board of the National Research Council (NRC)—the Academy's operating arm through which the NAS and NAE carry out studies. (The Institute of Medicine also shares in the governance of the NRC but conducts studies on its own.)

It seems obvious to aficionados of Academy politics that White intends to capitalize on strides made by his predecessor, Courtland D. Perkins, and carry them far more than one step further despite the internal friction this may cause for a while. White speaks warmly of his relationship with NAS president Frank Press who, he says, has been very supportive of the NAE's efforts.

But observers say it is clear that White will not play a deferential second to Press, and the fact that the NAE has a president as aggressive as White changes

the Academy's political landscape. Take the little things. For example, no one within the NAS who has any diplomatic sense any longer refers to the Academy. The terms has become plural, as in National Academies. In the past, the NAE president had his office on the third floor of the Academy building, as does the president of the Institute of Medicine. White's office is on the second floor, right next to Press's. And, although there is no longer any talk about the engineers splitting off from the NAS altogether as there once was, the NAE's long-range plans include a building of its own.

More substantively, White has been named vice-chairman of the National Research Council (Press is chairman) which publishes some 350 reports a year—nearly one a day. From that seat White can wield considerable influence in the Academy, ensuring an active role for the NAE in virtually any study that touches engineering or technology. White came to the NAE presidency from the University Corporation for Atmospheric Research in Boulder, which he headed since 1980. Immediately before that, he was a member of the NAS staff when he served a 2-year stint as executive officer of the NRC. Thus, White has an insider's knowledge of how the Academy works. A career that includes 12 years in government, seven of them as administrator of the National Oceanic and Atmospheric Administration in the Department of Commerce, makes him a Washington insider as well. It is experience White intends to use to promote the NAE. "I will be up on Capitol Hill a lot," says White, who also intends to make frequent appearances before professional organizations and the press, explaining that "No facet of our society is without its technological dimension."

The NAE's pursuit of a "Technology Society" theme is not brand new but, White says, it is something he plans to see the engineers push with "new vigor. It's a matter of emphasis." By taking a broad interdisciplinary approach to what falls in NAE's purview, White easily moves it closer to the forefront of public policy. ". . . [T]he kinds of problems our government and society face no longer easily compartmentalize into the traditional domains of engineering," he has written the membership. So, although the NAE will continue to advise the government on questions of civil engineering—roads and bridges, for instance—endeavors such as a forthcoming symposium on technology and foreign relations (planned for late spring) are gaining priority.

White joined Press on a recent trip to China where the two discussed plans for exchanges in the area of industrial science, largely "precommercial." As White sees it, the NAE can develop ties with China's industrial ministries, while the NAS, with its predominantly academic membership, works more closely with China's university scientists.

Another new venture which White hopes will materialize during the next couple of years is a series of symposia on the "Technology Society" theme. The relationship between universities and industry, ethical questions about genetic engineering, and issues in technology transfer might be on the agenda.

As the engineers extend their reach, they cannot help but move into territory that once was the more exclusive domain of the NAS and Institute of Medicine. On the record, Academy officials talk about complementary activities and shared responsibility. "It's good to have all three presidents around here talking about the same things," one offered. But the NAE isn't going to become a big kid on the block without creating its share of friction along the way.

—BARBARA J. CULLITON

EPA Faults Classic Lead Poisoning Study

A review questions a study linking lead in teeth with low IQ scores; EPA finds other grounds for regulation

"They are trying to expunge 10 years of my work," says Herbert L. Needleman, a psychiatrist at the Childrens' Hospital of Pittsburgh and author of an influential article on traces of lead found in childrens' teeth. Published in the *New England Journal of Medicine* in 1979, his study made front-page news when it reported that children exposed to modest amounts of lead had suffered intellectual damage that might affect them for life. His research showed that children with high lead levels (which were not considered high by 1979's standards) scored three to four points lower on IQ tests than those with negligible amounts of lead in their teeth.

Recently this work has been strongly criticized by Environmental Protection Agency (EPA) staffers and by outside reviewers who are helping the EPA rewrite its rationale for controlling lead. This rationale, called a "scientific criteria document," has just been released in draft form. It says that Needleman's studies "cannot be accepted as valid" because of sampling and statistical errors. At Needleman's request, an appendix that closely dissects his studies has been withheld pending a final rewrite that reflects his critique of the critique.

The acrimonious debate over the Needleman data reflects the sometimes painful process by which the scientific record is checked and revised. In this case, however, Needleman seems to have a point in arguing that critics would not have focused so intensely on the flaws in his work had there not been an economic reason to do so. For years, the lead industry—which has resisted EPA's cleanup proposals—claimed that Needleman's work was unsound. It is particularly irksome for him to hear the same criticism now from the EPA.

In Needleman's view, the reanalysis is "destroying the main strut" in the argument for holding lead pollution to very low levels. In addition, he chides the EPA for dismissing his data before carefully reading his written responses. The whole process, Needleman believes, has been a "rush job," devoid of the usual courtesies afforded a scientist whose work is being reviewed, leading to a report that is "incomplete and erroneous, tendentious and superficial." The criteria document came out before EPA had taken account of Needleman's written corrections of the record. And the appendix was called back from the printers only because Needleman insisted on it. A friend and colleague in lead research—Phillip Landrigan, an official at the National Institute for Occupational