fighting in Vietnam—and when—nearly 20 years after the fact.

But it is not necessary to study ground troops to link Agent Orange to disease. The National Institute of Occupational Safety and Health (NIOSH) has followed 7000 chemical workers who were heavily exposed to dioxin 30 years ago and plans to report the results within a year. And results should also be out soon from the CDC's Selected Cancers Study, designed to study the risk in Vietnam veterans of developing certain cancers related to their service in Southeast Asia.

But even if the NIOSH study links cancer to Agent Orange's key ingredient, and even if the CDC proves that Vietnam vets are more likely to develop certain types of cancer than is a random sample of the U.S. population, the government could still argue that the crucial scientific question remains unanswered: Are Vietnam vets suffering today directly from the sprayings of yesteryear?

The courts might make the scientific de-

bate moot: a lawsuit brought by Vietnam Veterans of America against the predecessor of the newly formed Department of Veterans' Affairs (DVA) successfully argued that DVA's restitution standards were too rigid, prompting DVA to reconsider its refusal to pay on Agent Orange claims. Results from either the new CDC or NIOSH study could help the agency make up its mind. But if DVA doesn't move enough from its current position, Congress stands poised to intervene. **MARCIA BARINAGA** 

## NSF Peer Review Under Fire from Nader Group

In the interest of due process—or, some say, overdoing process— Ralph Nader's lawyers at Public Citizen, Inc., are trying to get the National Science Foundation (NSF) to run its peer reviews a bit more like a judicial proceeding, with open files, an opportunity for applicants to rebut their critics, and a clear system of appeals.

NSF's peer-review system is not as fair as it should be, says Eric Glitzenstein, a young lawyer at Public Citizen who has appealed to NSF for reform. Glitzenstein sent the agency a 46-page legal brief on 13 July which he wants NSF to publish in the *Federal Register* as a proposed new rule.

Erich Bloch, director of NSF, declined to comment. However, the agency issued a terse note to the effect that this matter is "not new" and is "currently being reviewed by our general counsel." One agency official says NSF may handle the petition as it would handle any other letter, although Public Citizen believes the petition may require a more formal response.

Glitzenstein's claim is based on the Privacy Act of 1974, which allows citizens to correct erroneous information about them in official files. The Nader raider says that NSF deliberately avoided complying with the act for 14 years and, when pressed to reform its practices, made improvements but came short of the mark. To Glitzenstein, the problem began in 1974 when NSF first ignored the provisions of the Privacy Act. It organized its files on grant applicants not by the individual's name but by institutional affiliation. From then until 1988, Glitzenstein says, NSF denied grant applicants a chance to see what peers were saying about them by employing a technical ruse: the agency simply maintained that it kept no records on individuals, which would fall under the law, but only on institutions, which would not.

The system was overhauled in July 1988 "with no fanfare," Glitzenstein says, 7 months after his client Jon Kalb settled a legal fight he had waged against NSF for 9 years. As part of the settlement, NSF agreed to make the review process more transparent (*Science*, 11 December 1987, p. 1502).

Kalb, a Texas geologist, had discovered after being denied a grant that he had been falsely called a CIA agent in NSF peerreview meetings. Kalb was never given a chance to respond to that allegation and claimed that the rumor cost him his grant and possibly ruined his scientific career. NSF maintained that his proposal simply failed for lack of merit. With the help of Public Citizen, however, Kalb obtained NSF documents revealing that the CIA rumor was a central issue in the peer review, even though its importance was not made clear in the official written record.

The new filing system that went into effect last July, known as

NSF-50, is supposed to prevent this kind of abuse, and it is an improvement over the old methods, Glitzenstein says. It complies with the Privacy Act in many respects. But Glitzenstein writes in a letter to Bloch that the NSF "has not gone nearly far enough." He makes five broad requests for improvement:

■ Make records accessible. Since the Privacy Act gives grant seekers the right to look at records affecting them, NSF should notify applicants of these rights and explain how to exercise them. This is "essential" today, the petition says, "in view of the agency's systematic subversion" of the law for 14 years.

• Keep complete records. Glitzenstein maintains that NSF still does not put all the information it considers in a peer review into the official record. The Privacy Act requires that pertinent information gathered in conversation or over the telephone be set down in writing and revealed to the subject of a file on request. If this kind of information is not included, the grant applicant never has a chance to see it or respond.

■ Keep minutes of panel meetings. The petition claims that the Federal Advisory Committee Act demands that the agency keep "detailed minutes," not just the abridged "summaries" NSF uses now. Although panel discussions are exempt from public disclosure requirements of the law, Glitzenstein argues that the person who is the subject of those discussions should be allowed to review the comments that pertain to his or her research.

■ Notify applicants of derogatory comments. The petition argues that NSF's present method of handling personal information is not good enough. It gives program officers discretion to reveal (or remain silent about) any allegations that arise. Public Citizen wants NSF to notify applicants routinely when such information turns up and to allow 20 days for a written response.

■ Guard against conflict of interests. To keep unfair criticism to a minimum, the petition argues, NSF should allow grant applicants to see a list of potential reviewers in advance. The applicant himself is best able to identify direct competitors and should be invited to do so. It would be much more efficient than the present approach, Glitzenstein says, which requires program officers to try to figure out who competes with whom.

■ Make it easier to appeal rejections. Glitzenstein cites survey data showing that many scientists are dissatisfied with NSF's peer-review system, but few file appeals. This indicates the process needs reform, he says. The petition calls on NSF to establish and inform its applicants about a routine appeals process, citing the system at NIH as a good model.

When NSF's general counsel has finished studying all this, he will respond at length and in detail—but not, one imagines, with enthusiasm.