## A Firing over Formaldehyde

## For saying that formaldehyde is a human carcinogen, a government scientist finds himself under notice to quit

On 2 June, the Formaldehyde Institute's attorney, S. John Byington, wrote an angry letter to a high official at the Occupational Safety and Health Administration (OSHA), assailing the conduct of one of the agency's top scientists. Referring to OSHA epidemiologist Peter F. Infante, Byington demanded to know, "How do you control members of the bureaucracy who seem to be operating freely within and without government?" Four weeks later, Infante, who maintains that formaldehyde is a potential human carcinogen-an opinion that industry disputes—received notice that he was to be fired.

Infante's proposed dismissal was immediately labeled as "politically motivated" by Representative Albert Gore (D-Tenn.) who heads the House science and technology investigations subcommittee. At hearings held 15 and 16 July on Infante's proposed departure, Gore said, "If OSHA succeeds in firing Dr. Infante, it will be a clear message to all civil servants who are charged with protecting the public health that those who do their job will lose their job." Critics of OSHA under the new Administration contend that the Infante firing is a clear signal that the agency is a handmaiden to industry. Infante, head of OSHA's office that identifies carcinogens, charges that OSHA is denving him the freedom of scientific expression.

Infante's troubles began when he wrote a highly critical letter 12 May to John Higginson, director of the International Agency for Research on Cancer (IARC), a branch of the World Health Organization. In the letter, Infante contested a recent decision by an agency panel which concluded there was insufficient evidence to call formaldehyde an animal carcinogen. Infante, clearly irritated, declared that the panel must not have been familiar with its own criteria for classifying cancer agents.

Insulted by Infante's criticisms, Higginson fired off a letter to the head of OSHA, Thorne G. Auchter. Infante was "casting aspersions on the competence and objectivity" of the panel, he wrote. Furthermore, the tone of Infante's letter "appears to be an attempt by a United States regulatory agency to influence the decisions of this organization."

OSHA paid serious attention to the

complaints from Higginson and Byington of the Formaldehyde Institute. Earlier this year, Mark Cowan, a special assistant to Auchter, had met with Byington and another institute attorney, who explained that, in their opinion, animal and epidemiological studies showed that formaldehyde did not pose a cancer risk to humans. (Under the Carter Adminis-



Infante: "Does politics change science?"

tration, OSHA classified the chemical as a potential risk.) After the meeting, Cowan, a lawyer, wrote a confidential memorandum to Auchter, saying that there "is more than a scintilla of doubt" about formaldehyde's alleged cancer risk. Cowan continued, "... the evidence currently available is, at best, conflicting, at worst, biased...."

The Formaldehyde Institute has similarly persuaded the Heritage Foundation, the conservative think tank which has had particular influence in the Reagan Administration. Foundation president Edwin Feulner wrote in a March column distributed to 1440 small- to middle-size newspapers that the formaldehyde industries "may find themselves in a deep pickle—all because the un-Reaganized Consumer Product Safety Commission wants to ban formaldehyde." Feulner complained that federal agencies may decide to regulate formaldehyde more closely even though epidemiological studies have "all given the chemical a clean bill of health.'

"Because of its funny name and foul smell, formaldehyde may not seem like something we should care much about ... [but] formaldehyde is too useful a product to be lost to the American economy," Feulner concluded.

The formaldehyde industry is a multimillion dollar business. According to 1978 figures from the Consumer Product Safety Commission, more than 6 billion pounds of formaldehyde are produced annually at a value between \$285 million and \$350 million. The versatile substance is used in the manufacturing of particle board, plywood, urea-formaldehyde foam insulation, resins, preservatives, and embalming fluids. It also keeps the "press" in permanent press fabrics.

"Its use is so diversified that there is a potential for exposure in a number of occupation, environmental and consumer settings," says a recent report by the National Academy of Sciences. Indeed, the government estimates that 1.6 million workers were exposed to formaldehyde in 1974. The academy report says that 11 million people live in mobile homes that are constructed largely from plywood and particle board which release formaldehyde vapors. The government has already received more than 1600 health complaints related to formal-dehyde foam insulation.

Given the ubiquity of formaldehyde, Infante says he felt compelled to write Higginson. Now he finds himself on the verge of being ousted from his \$50,000 a year job on the grounds that (i) he misrepresented the agency by writing Higginson on OSHA stationery and (ii) he was insubordinate to his superiors who allegedly told him that the agency had changed its mind on formaldehyde.

According to several key scientists, who have written to Infante in his support, including Eula Bingham, Auchter's predecessor at OSHA, it is common practice for government scientists to write other researchers using the agency letterhead. As for the charge of insubordination, Infante claims that he was never informed that OSHA had switched its position.

With the exception of the IARC panel, there is a substantial measure of scientific agreement that formaldehyde is a potential human carcinogen. Last fall, a panel comprised of 17 scientists from seven different federal agencies, including OSHA, reported to the Consumer Product Safety Commission that formal-

dehyde "poses a cancer risk to humans" based on the animal data. At the recent Gore hearings, the directors of several federal research agencies concurred with the federal panel's findings, including Vincent DeVita of the National Cancer Institute, James Millar of the National Institute of Occupational Safety and Health, David Rall of the National Center for Toxicological Research, and Ronald Hart of the National Center for Toxicological Research.

The principal evidence on which these scientists rely is a study sponsored by industry itself. Results from rat studies sponsored by the Chemical Industry Institute of Toxicology (CIIT), showed that from 20 to 43 percent of the animals developed rare nasal cancers after chronic exposure to high doses of formaldehyde at 15 parts per million (ppm). Long-term analysis also has revealed that 1.6 percent of the rats developed nasal cancers at low doses of exposure of 6 ppm, the CIIT July newsletter reports. Some formaldehyde workers and mobile home residents are exposed to levels as high as 10 ppm although OSHA currently limits exposure to 3 ppm.

The CIIT findings are buttressed by another study headed by S. Laskin of New York University in which rats were exposed to a combination of formaldehyde and hydrogen chloride. The federal panel of 17 scientists stated that formaldehyde appeared to be the main cause of the nasal cancers that the animals developed, although it did not rule out the possibility that the combination of chemicals may have contributed to the carcinogenicity.

The Formaldehyde Institute maintains that the federal panel's conclusions are folly. The CIIT's results are still preliminary, Byington argues. The institute also cites testimony by Harry Demopoulos, an associate professor of pathology at New York University Medical School, who challenges the validity of the CIIT study. Demopoulos testified before the Consumer Product Safety Commission in March that the study "is fatally flawed; that a massive artifact was created, and that formaldehyde is therefore, not truly an animal carcinogen. . . .' The artifact was created, he said, because the test animals developed a serious inflammation in their nasal cavities from exposure to formaldehyde. Such reactions are carcinogenic in and of themselves, he stated.

The federal panel decided that the inflammation "was not significantly important," says David Griesemer of Oak Ridge National Laboratory, who was the panel chairman.

Demopoulos also testified that the NYU department of environmental medicine had "discounted" the Laskin study.

Arthur Upton, chairman of the department, says, "Dr. Demopoulos' statement is really totally without grounds. On the contrary, the study is an extremely important one."

The Formaldehyde Institute and Demopoulos maintain that epidemiological studies evaluating formaldehyde have all proved negative. Yet authors of recent studies which the industry cites as supportive evidence say that their studies are inconclusive, not negative.

Citing the weight of the scientific data



OSHA chief Auchter says he didn't order firing.

that points to formaldehyde's carcinogenicity in animals and its potential risk in humans, Infante says he is stunned that OSHA wants to dismiss him. "I've been fired for saying something the whole world knows and that's what's so bizarre," Infante says through his lawyer, David Vladeck. "Does politics change the science? No, it should be the other way around," Vladeck says.

It appears that no OSHA official wants to take the credit or the blame for Infante's removal. At the House hearings, Auchter and Infante's immediate superior Bailus Walker, gave conflicting testimony. The contradictions bubbled during an agitated three-hour session in which Gore threatened to call the sergeant at arms to force Auchter and his counsel to leave the witness table while Walker testified. Gore said to Auchter, "It is for the purpose of intimidation that you're sitting there." Auchter and his counsel rose from the table, stalked off and took seats among the spectators.

Walker, a carryover from the Carter Administration, found himself in a difficult position because, as he testified, he agrees that formaldehyde is a potential human carcinogen. After the agency received the Higginson complaint, Walker said that Auchter had ordered Infante's firing, despite his suggestion that Infante be merely informally reprimanded. Walker said he was only obeying orders when he signed the official letter giving Infante notice of his proposed firing. Walker is leaving OSHA to take a job as director-designate of Michigan's state department of health, an appointment that came a day after he signed Infante's dismissal letter.

Later, Gore queried Auchter, who had initially declined to testify on the advice of the Labor Department counsel. Gore asked, "Did you direct the firing of Dr. Peter Infante?" "Absolutely not," Auchter replied. When pressed by Gore to reveal which OSHA scientists doubted the formaldehyde data, Auchter replied that he had not consulted any of the agency's scientists.

Infante is currently appealing his dismissal. "The charges are absurd," Vladeck says. "Scientists should be able to disagree without fear of reprisal." Griesemer, who is also a member of the international panel that Infante originally criticized, comes to the defense of the OSHA scientist. The group made a judgment call on formaldehyde because it usually requires two published studies to classify a substance as a potential cancer risk. At the time, the panel had only the CIIT study as evidence. The group, however, is to meet next February when it will likely reconsider its position, Griesemer savs.

The Formaldehyde Institute contends it had nothing to do with Infante's firing. "At no time did the institute ask for personnel action," says Byington. "I simply asked what OSHA's policy is regarding its employees." But it appears that even if industry never explicitly called for Infante's dismissal, Auchter took his cue from the institute's lamentations.

"In my opinion, it's a bad precedent for scientists who stand up and say what they think," says one researcher, Kenneth Chu, who works in the National Toxicology Program. Chu worked for a year with Infante on leave from the toxicology program. Chu concedes that "Infante has stepped on a lot of industrial toes," but his proposed firing "threatens the independence of scientific judgment."

Representative Gore concluded his hearings with the reflection that it was clear that the Formaldehyde Institute "wanted this guy [Infante] out and the only charge they could come up with is that he used OSHA stationery."

-Marjorie Sun