Gofman and Tamplin: Harassment Charges against AEC, Livermore

"There is no morality and there is not a shred of honesty in any one of them—none. I can assure you, from every bit of dealing I've had . . . there is absolute duplicity, guaranteed duplicity, lies at every turn, falsehood in every way, about you personally and about your motives."—John W. Gofman, speaking about his treatment at the hands of the Atomic Energy Commission (AEC) and other atomic energy advocates, in a luncheon speech before the National Committee to Stop Environmental Pollution, in New York City on 5 March 1970.

"Gofman, Tamplin and their allies are . . . trying their case in the press and other public forums. We used to call such characters 'Opera Stars.'"—James T. Ramey, AEC commissioner, at a meeting sponsored by the Atomic Industrial Forum, in Los Angeles on 9 February 1970.

Livermore, California. The great public battle over radiation standards—which primarily pits two California scientists, John W. Gofman and Arthur R. Tamplin, against the AEC, the Federal Radiation Council, and various other standards-setting bodies—has entered a new phase in recent weeks. Initially, the debate centered on whether existing standards are adequate to protect the public health. Gofman and Tamplin—who both work at the Livermore branch of the Lawrence Radiation Laboratory, an AEC-financed installation—argued that current standards are set dangerously high. They contended that if everyone in the United States were to receive the amount of radiation currently allowed, there would be 32,000 more cancer and leukemia deaths per year. Consequently, they called for a sharp reduction in allowable radiation exposure.

But the AEC challenged their assumptions, disputed their estimates, and disagreed with their recommendations. "This is the third time Gofman's taken off on a wild tangent," John R. Totter, director of the AEC's division of biology and medicine, told the Associated Press. Some federal officials even suggested that, far from being too lax, the existing standards are actually too strict.

The question is controversial and highly technical and will not be reviewed here (for an analysis of the technical debate see *Science*, 6 February 1970). But in recent months Gofman and Tamplin have raised a new issue. They contend that they are being harassed and punished by both the AEC and the Livermore laboratory for speaking out on the dangers of nuclear energy. They also claim efforts have been made to suppress their views.

The scientific issue has thus been joined by a "free speech" issue involving the right of scientists on the government payroll to speak out against government programs.

Such free speech issues seem to be cropping up with increasing frequency as scientists become more politically active and more socially concerned. The debate has been particularly intense at the Lawrence Radiation Lab, which is operated by the University of California under contract with the AEC. The Lawrence laboratory has two separate facilities, one at Berkeley for the study of fundamental nuclear science, and one at Livermore which specializes in nuclear weapons and various peaceful uses of nuclear energy. An article in last week's issue described how the Berkeley branch has been split by a debate over whether scientists should be allowed to hold noon-hour seminars on political topics. This week's article will focus on free speech problems at Livermore.

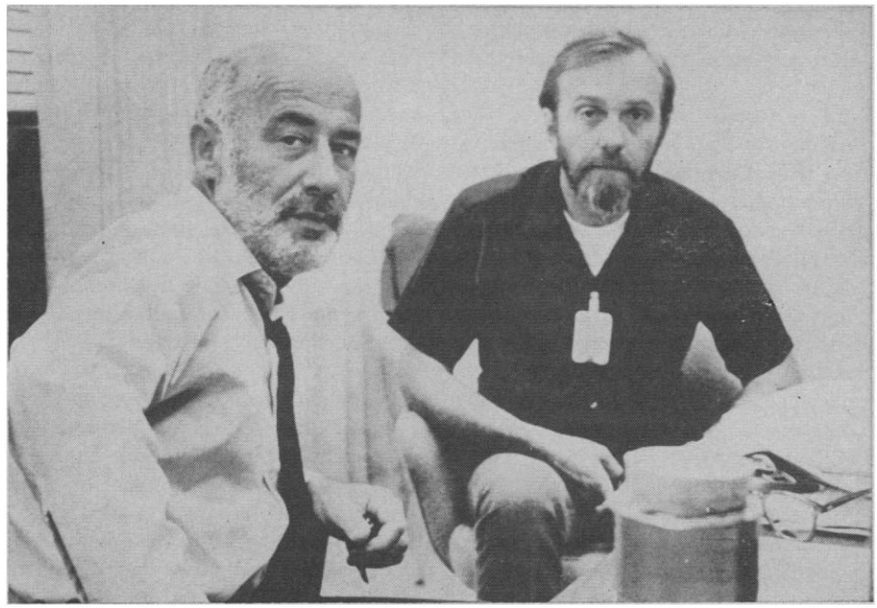
The Gofman-Tamplin controversy is not the only free speech issue at Livermore. For the past year or more, a local branch of Scientists and Engineers for Social and Political Action, led by Charles Schwartz, an activist physics professor at Berkeley, has been trying to force Livermore to open its doors for discussions of the implications of nuclear weapons and other military research. The effort has not been notably successful. Though more than a dozen demonstrations (most of them tiny) have been staged at Livermore since June 1969, the laboratory has declined to let outside groups enter the grounds for a debate or discussion. Moreover, an attempt to gain entry by court order to observe the 25th anniversary of the bombing of Hiroshima with a conference on "science and war" was denied early this month. The effort to "open up" Livermore has gained support from some well-known names, including Nobelist Owen Chamberlain and the controversial Gofman, but there are no signs that it is having much effect on the laboratory's operation. "I don't see any incipient rebellion from within," says one Livermore scientist.

In contrast, the furor over whether Gofman and Tamplin are being denied the right to speak out has caused reverberations from Livermore to Washington, D.C. In the long run, the Gofman-Tamplin case may turn out to be particularly significant because of the questions it raises about the proper role for dissenting scientists at government laboratories. Gofman and Tamplin are currently a rather unique thorn in the side of the AEC. But as concern continues to mount over the social consequences of scientific undertakings, there are bound to be additional scientists ready to proclaim misgivings about government policies.

Gofman and Tamplin are both employed in the biomedical division at Livermore, which seeks to determine the impact of radionuclide releases upon the biosphere, particularly upon man. The program involves predicting how much radioactivity will be released by various AEC programs, tracing such radioactive materials through the environment, and determining what effect they will have on man. Gofman, who is also a professor of medical physics at Berkeley, was picked to be the first director of the new biomedical division in 1963. He served in that capacity for three years and was also an associate director of the Livermore laboratory for 6 years, but now devotes full time to research and public appearances. Tamplin, a biophysicist, was brought into the biomedical division by Gofman in 1963, where, until recently, he has been a "group leader."

Gofman and Tamplin have presented their attack against the radiation standards in a variety of forums. They have issued a series of technical papers, spoken at scientific meetings, testified before congressional commit-

tees, held interviews with the press and television, appeared as "expert" witnesses at public hearings, and attended numerous public meetings on reactor siting and other nuclear issues. Thus it can hardly be said that they have been prevented from getting their message out. Indeed, there is some evidence that the Livermore laboratory has actually helped them spread the bad word about nuclear hazards. Nevertheless, Gofman and Tamplin allege that there have been efforts to censor them and to block them from making public appearances. They also allege that they have been subjected to reprisals for speaking their consciences, that Tamplin's staff has been taken away so as to nullify his effectiveness, and that they have been slandered and threatened with being fired. There is some evidence that tends to support some of their allegations, but much of the argument boils down to the sort of "yes-you-did, no-I-didn't" kind of charge and countercharge that is difficult to unravel.



John Gofman (left) and Arthur Tamplin of the Lawrence Radiation Laboratory at Livermore, California.

The complaints of harassment primarily have been made by Gofman and Tamplin in interviews with the press. Shortly after an article appeared in the 5 July issue of the Washington *Post* suggesting that retaliatory tactics were being used against the two scientists, Chet Holifield (D–Calif.), chairman of the Joint Committee on Atomic Energy, asked the AEC to provide a detailed account of the matter. Meanwhile, social critic Ralph Nader, who has a team of investigators looking into the AEC, charged on 5 July that the AEC is either trying to get rid of the two scientists or "at least render them voiceless." Nader asked Sen. Edmund S. Muskie (D–Maine), chairman of a pollution subcommittee that held hearings on radiation hazards last fall, to investigate the alleged harassment. Faced with a rising tide of complaints, the AEC, on 21 July, served up a 70-page point-by-point rebuttal of virtually every charge of harassment made by Gofman and Tamplin. Holifield, who is known as a promoter of atomic energy and a defender of the AEC, sent the report to Gofman and Tamplin to get their comments, then issued a statement saying he found "no need for impulsive action" on the matter. Holifield also criticized Gofman and Tamplin for rebutting the AEC's rebuttal with charges and words that "unfortunately contain the material for sensational media publicity." However, Muskie, whose reputation has been made by fighting pollution, complained that the AEC's report "does not appear to be an unbiased review of the allegations made by Drs. Gofman and Tamplin." Muskie has asked the AAAS to undertake "a complete review of the situation." The AAAS president, Athelstan Spilhaus, has the matter under consideration.

Perhaps the most serious charge made by Gofman and Tamplin is that the Livermore lab and the AEC have taken away almost all of Tamplin's staff support in order to punish him and to deprive him of the ability to continue functioning as an effective critic of nuclear standards. The basic facts in the case are not disputed. Last December Tamplin had 11 employees working under him; now he has only one, a man who also happens to be a critic of AEC practices.

Why was Tamplin's staff reduced? Roger Batzel, associate director of the Livermore lab, told *Science* the decision was made by laboratory officials, not by the AEC, and that it reflected a number of administrative, budgetary, and scientific judgments. The first seven employees who were taken away from Tamplin had been working on a handbook used to predict the dosage man will receive from fallout from nuclear devices or from other intrusions of radioactivity into the environment. Batzel said that the group had been working independently for some time; that it was not doing work involved in the series of papers issued by Gofman and Tamplin criticizing radiation standards; and that Tamplin had "effectively removed himself from supervision of the group anyhow." Consequently the group was reassigned last December as an integral unit to continue preparation of the handbook. Batzel claims Tamplin agreed to the transfer, but Tamplin hotly denies this. Gofman claims Tamplin's chief research tool was "stolen" in what he calls "the most crass deception in science I've ever seen."

The next two staff members to be taken away had been working under Tamplin on an experimental program involving the immune response to radiation, but in June they were shifted to "higher priority work on radioecology" under another scientist. Batzel says the men had not been working on the radiation standards question and that they had been receiving "inadequate supervision" from Tamplin because Tamplin was putting all of his energy into the standards controversy. "When we looked at the scientific productivity in light of the budget cuts we had to make," Batzel said, "we judged that we couldn't continue to support this particular laboratory experimental work."

That left Tamplin with one staff member and a full-time clerk-secretary (who was actually an "information specialist" and a valued colleague, according to Tamplin). The laboratory decided Tamplin's remaining unit was now so small that it didn't warrant a full-time secretary, so she was transferred too. (Gofman is now the only scientist in the biomedical division at

Livermore who has a private secretary. All others must draw from a secretarial pool.)

Were these actions punitive? The AEC's investigation found "no indication that these actions were motivated as reprisals for criticism." Indeed, Batzel, the associate director at Livermore, says that the biomedical division had to ask six or seven scientists to terminate their programs over the past year because of budget stringencies—an action he considers "more severe" than the cuts imposed on Tamplin. But Gofman considers it "utter nonsense" for the AEC to claim that Tamplin has merely gotten his share of the budget cuts. Gofman claims Tamplin alone suffered 60 percent of the cut in Livermore's biomedical program. Tamplin notes that this also happens to be the first year since he joined the lab in 1963 that he has not received an annual salary increase. "What is the difference now?" he asks. "Only one thing—I have been publicly critical of the radiation protective standards that are promulgated by the AEC."

Effect of Staff Reductions

Will the staff reductions hamper Gofman and Tamplin in their efforts to alert the public to alleged radiation dangers? Gofman says categorically that Livermore has "succeeded in major destruction of our capability to continue our work" and has thereby "partially succeeded in silencing our presentation of the radiation hazards issue." However, the AEC, which notes that Gofman and Tamplin are basing their crusade on an interpretation of work that is already in the literature, rather than on any work that was being performed by their own staffs, contends that there should be no effect on the radiation hazards campaign. The AEC adds that Livermore is "reexamining whether any of the reassignments may have had the unintended effect of restricting Dr. Tamplin's literature search."

Gofman also suffered a modest cut in budget and staff, but he has publicly stated that he regards the cuts as reasonable in light of budgetary stringencies at the laboratory.

A second serious charge made by Gofman and Tamplin is that the laboratory has thrown roadblocks in the way of their efforts to testify at hearings on nuclear safety and at other forums. In some cases the two scientists allege that Livermore officials tried to dissuade them from making public appearances. Thus Gofman says he was told by Michael May, the director of Livermore, that it would be a "grave mistake" for him and Tamplin to testify before Senator Muskie's subcommittee last fall, because Muskie was "not a friend of atomic energy" and would use the testimony politically. Gofman says he was told that, if he felt he had to testify, he should do so before the Joint Committee on Atomic Energy. Similarly, Tamplin alleges that laboratory officials were "very disturbed" and did not want him to attend two public meetings in Vermont and Minnesota on nuclear power siting.

The laboratory's answer to these charges—as presented in the AEC's 70-page report—is that officials did indeed raise questions about these appearances but did not try to prevent them. Thus the AEC report acknowledges that Gofman and Tamplin were "told by Dr. May that testimony before the Muskie committee would have to be clearly presented since this highly technical area might be new to some members of the committee." But the report insists that "at no time have they been asked to decline to appear before this committee." Similarly, the report acknowledges that "Dr. Roger Batzel did ask Dr. Tamplin to consider whether he wanted to commit himself to such activities" as the public metings in Vermont and Minnesota, but the report says this was simply because Batzel wanted to be sure Tamplin realized "he was starting down a path which might well involve a commitment of a major part of this time."

Gofman and Tamplin claim the laboratory has thrown another roadblock in their way by refusing to pay travel expenses to meetings and by forcing them to take vacation time to make public appearances. Gofman was reimbursed for his travel to two congressional hearings, and Tamplin was reimbursed for two congressional hearings and two technical meetings, but travel expenses to the numerous other public meetings the two have attended came either from citizen groups or from personal sources. Thus when Tamplin was invited to address an American Cancer Society seminar for science writers in San Antonio, Texas, last March, the Cancer Society, as is customary, paid his travel expenses, and Tamplin was docked a day's vacation for the time he was gone. Similarly, when Gofman testified at a hearing on reactor siting before the New York City Council last March, his travel expenses were paid partly by a citizen's committee and partly by himself.

Batzel, the associate director at Livermore, says the laboratory has supported Gofman's and Tamplin's travels at a rate "way over the average for other scientists in the division." He also says that many of the meetings the two have attended are "outside our bailiwick" because the laboratory does not have the mission of supporting forums on the siting of nuclear reactors. Batzel says there has been no problem in supporting travel to present scientific papers, but he adds: "We can't justify sending people to present their own points of view about things that are not the laboratory's responsibility. They've had very reasonable ground rules and a lot of flexibility to move as they please. We haven't said you can't go to these things."

Dispute over Travel

However, Gofman and Tamplin argue that the AEC and its laboratories are applying their travel rules unevenly. Gofman notes, for example, that there were two high AEC officials and a high-ranking administrator from Brookhaven National Laboratory, an AEC-financed installation, at the hearings before the New York City Council, and he is willing to bet a large sum of money that none of them paid his own way or was docked vacation time. "The AEC has sent countless 'experts' to present public reports that reactors are safe and wonderful to various communities—all expenses paid out of taxpayer funds," Gofman says. "In striking contrast, the citizens themselves have to pay for nuclear critics like Dr. Tamplin or me to present the other side of the radiation hazard question."

A third major charge made by Gofman and Tamplin is that there have been concerted efforts to censor what they say. For the most part these efforts have failed. Ironically, the censorship issue first arose when the AEC called in the California scientists to be on *its* side in an earlier battle against another scientist—Ernest J. Sternglass—who was alarmed at radiation hazards. Sternglass, who is professor of radiation physics at the University of Pittsburgh, had loudly proclaimed that fallout from atomic bomb tests had caused millions of infant and fetal deaths. The AEC asked the Livermore laboratory to analyze Sternglass's data, and copies of Sternglass's papers were ultimately sent to Gofman and Tam-

plin. Tamplin prepared a rather detailed critique in which he described Sternglass as "obsessed" with his data and concluded that Sternglass's estimates were way off. But then Tamplin caused the AEC great consternation by coming up with his own estimate—that fallout from tests may have caused thousands of fetal deaths in 1963.

A sharp struggle then ensued within the AEC over whether Tamplin's estimate, which had first been circulated in an internal seminar paper, should be published, and where. Gofman claims that AEC officials in Washington—particularly John R. Totter, director of the AEC's division of biology and medicine, and Spofford English, assistant general manager for research and development, tried, in letters and phone calls, to get Tamplin to limit himself to a critique of Sternglass without making any estimate of his own of the number of fetal deaths caused by fallout. The

Air Pollution: Muskie Throws down the Gauntlet

Recently, a canny observer of the congressional scene remarked that the environmental issue could be a crucial one in this fall's elections "if only some of the candidates would take a stand in favor of pollution." His point was well taken, for politicians have been able to board the environmental bandwagon simply by making the right kind of noises from the podium. The air and water pollution legislation enacted in past years, while it has established a new federal-state framework for dealing with pollution problems, has had weak enforcement provisions and has not been well supported financially. These earlier measures were passed by large majorities, but, in terms of rigor, they reflected what the traffic would bear politically and that was deemed to be not very much. Now, the Senate Air and Water Pollution Subcommittee, which has been at work for months on an air pollution bill, is pressing for a measure strong enough really to test the commitment of members of Congress to the cause of environmental quality.

Provisions of the bill were outlined at a press conference last week by the chairman of the subcommittee, Senator Edmund S. Muskie of Maine, who was flanked by Senator Caleb Boggs of Delaware, the subcommittee's ranking Republican. Although the bill is too complex to be described in any detail here, the aim of this measure is to establish mid-1970 deadlines for the adoption and enforcement of national air quality standards adequate to protect the public health. By 1975 automobile manufacturers would be expected to have reduced exhaust emissions 90 percent below those allowed under current standards—an accomplishment the Nixon Administration has projected for 1980. Stationary sources of pollution, such as power plants and chemical factories, would face similar deadlines. And plants built after the law's enactment would have to use the best pollution-control technology available.

Yet, however drastic the reduction in emissions required, the bill recognizes that in some urban areas this alone would not suffice to meet air quality standards and protect public health. Accordingly, pollution abatement plans submitted by the states for federal approval would have to specify those additional steps that are necessary. These might include, for instance, limiting or banning automobiles from downtown areas and providing adequate public transport for those areas; or, for another example, regional land-use plans, restricting new industry to those sites where they will cause the least pollution problems, might have to be adopted.

Past pollution abatement efforts have been hampered by awkward, time-consuming enforcement procedures and what seems an abiding tolerance and patience on the part of state and federal authorities. In May, Ralph Nader and his associates depicted Senator Muskie, the principal architect of clean air legislation, as a paper tiger in the pollution jungle. But the new Muskie bill is clearly a "tough" one. It would not only tighten up abatement deadlines, it would allow private citizens to go to court and demand compliance with those deadlines. Moreover, the federal government could not do business with companies violating emission standards and company officials twice convicted of knowing violations would be subject to heavy criminal penalties.

This measure, taken as it stands, may never be enacted by the Congress, however. The air pollution bill which was passed by the House in June was along lines recommended by President Nixon. While stronger than any air pollution bill passed previously, it is weaker than the Muskie bill and sets no new automobile emission standards. Since Muskie is a front-runner for the Democratic presidential nomination in 1972, the Nixon Administration can be expected to try to keep him from upstaging the President. But for the Administration to oppose the bill may be awkward, for it was approved by the Muskie subcommittee unanimously and has bipartisan backing. Muskie indicated that the subcommittee bill should encounter little difficulty in the Senate, but that bringing it through conference with the House without major changes will not be easy.

There will no doubt be a pained outcry against the bill from industry, as Muskie has predicted. But the fact that the standards it would establish are defined as the minimal standards needed to protect the public health should give Muskie the high ground. At the news conference a reporter demanded to know whether the subcommittee had evidence that the automobile manufacturers could in fact meet the 1975 standards. Muskie, with a show of surprise and indignation, responded that it was not the duty of the Congress to find technological solutions to air pollution but to provide the health standards the polluters must meet. He recalled that, in World War II, President Roosevelt had called on industry to produce 100,000 airplanes a year, and that industry had met that seemingly impossible goal. "If they can gear up to fight a war, they can gear up to protect the public health," he said.

Muskie believes that it is chiefly public concern over air pollution that has made "environmental quality" a major national issue. To cope with pollution involves hard political choices, a fact pointed up by the Muskie subcommittee's new bill. In voting for or against just such measures as this one, members of Congress will indicate whether they are on the environmental bandwagon to stay.

—LUTHER J. CARTER

Academy Creates Medical Institute

The National Academy of Sciences (NAS) has deflected a recommendation that it "spin off" a national academy of medicine by deciding to create a new Institute on Medicine to deal with the increasingly complex problems of medicine and health care. The Institute, planned to include eventually about 200 members on fixed terms, will be composed of the current 25-member Board on Medicine and persons in the medical and social sciences, NAS President Philip Handler announced. The Board, chaired by Walsh McDermott of Cornell University Medical College, had recommended to the NAS last year that a separate Academy of Medicine be formed, somewhat similar in its relation to the NAS as the National Academy of Engineering. NAS members, however, were reluctant to start an entire new Academy at that time but endorsed the Board's proposals for increased consideration of and research into policy questions related to medicine and health care. The Board subsequently recast its recommendations into a proposal for an Institute, and this plan was accepted by the NAS Council. The new Institute will report directly to the Council. The NAS at present has no other institutes—N.G.

AEC also suggested in a letter from Totter to Tamplin that, while the critique of Sternglass might well be published in a relatively popular magazine, such as *Environment*, the estimate of fetal mortality rates should be treated as a separate item and submitted to a refereed journal, such as *Health Physics*. Although Gofman and Tamplin believe the AEC was trying to interfere with Tamplin's right to publish, the AEC contends it was merely urging Tamplin to "correct several errors of fact and of interpretations."

A somewhat similar incident arose when Tamplin was invited to talk at a AAAS symposium last December. As a result of previous controversies the two scientists had agreed to submit their papers to lab officials in advance, so Tamplin turned in his paper on "Nuclear Reactors and the Public Health and Safety." He got it back with major portions crossed out. Gofman recalls that he stormed in to see May, the lab director, and announced: "This is the end of the Rad Lab as a scientific institution. From now on you can call it a scientific whorehouse." Gofman claims that May then told him, "Look, Jack, you're not being realistic. The lab is a fragile institution. It gets 98 percent of its support from the AEC. We can't take a chance on injuring relationships between the lab and the commission." The laboratory also told Tamplin that if he wanted to present his "personal opinion" on nuclear power (that is, the sections that had been crossed out), then he would have to pay his own expenses. In a fit of outrage, Gofman called the chairman of the AAAS session, told him of the alleged "censorship," and said he would send a formal letter to the AAAS complaining about the censorship unless the lab reversed its stand. Ultimately the lab backed down and allowed Tamplin to present his "scientific paper" under laboratory sponsorship.

The only instance in which anything that Tamplin or Gofman wrote has been significantly changed involves the handbook on radiation dosage which was removed from Tamplin's jurisdiction last December. The handbook, which is used to predict dosage to humans that would occur from fallout or other releases of radiation into the environment, has heretofore contained a preface, written by Tamplin, which expresses the philosophy that such predictions should be based on "the worst situation that could develop." Now that the handbook is out of Tamplin's reach, both the preface and the handbook itself are being revised. Batzel, the associate director, says that the new preface will not only consider the "maximum credible situation," but also the "best estimate" of dosage that is likely to result from a nuclear event. Similarly, the tables, which now include only a maximum estimate, will be revised to include both a maximum and a "best" estimate, Batzel said. "You really need both," he explained.

In an effort to put the censorship charges into perspective, Batzel said that Livermore has given Gofman and Tamplin "full use of the laboratory facilities in the publication of their scientific views." He said Livermore even modified its normal publishing procedure to accommodate the two scientists. In all, some 27,000 copies of 21 different reports by Gofman and Tamplin have been reproduced at laboratory expense. "We typed them, reproduced them, and mailed them out to their distribution list," Batzel said.

A fourth charge made by Gofman is that the laboratory had threatened to fire him for rebuttals he has made against his critics. Gofman suggests that the AEC has been out to get him for several months. He claims that back in December, when he was arguing with Livermore administrators over "censorship," he was told: "Look, don't worry about a little censorship, you should know what the AEC said we should do to you." There is no question that Gofman has been threatened with dismissal—the laboratory acknowledges that. But the lab claims Gofman was told he would have to leave if he continued to make "personal attacks" on individuals who disagreed with him. Gofman claims that he hasn't made any personal attacks and that "all the slander and insult starts elsewhere. . . ."

An Edge on Invective

It is hard to tell at this stage of the battle who started what, but Gofman may well be slightly ahead in the name-calling contest. He has accused Victor Bond, associate director of Brookhaven National Laboratory, of making statements "so filled with lies, half-truths, and deliberate distortions that I would consider them to represent criminal irresponsibility." He has described statements by Lauristan Taylor, head of the National Committee on Radiation Protection, as "fraudulent, hypocritical and incompetent." He has complained of the "fraud represented by the Atomic Energy Commission and its sycophantic hangers-on such as Dr. Philip Cohen" (of the University of Wisconsin Medical School). And he has described reactor supporters as "proponents of atomic murder." By Gofman's definition, those apparently are not personal attacks. What he does regard as slanderous are various comments allegedly made by Totter, the AEC's head of biology and medicine, in a taped interview with science writer William Hines. In a transcript of the interview made public by Gofman, Totter is quoted as saying that AEC staff members for some time "didn't

think he [Gofman] was doing really scientific work. He was not publishing anything in the literature. He was being supported to the tune of about $330,000 a year and we had nothing to show for it." Totter was also quoted as saying that Tamplin's handbook is "not very well accepted—large parts of it are not well accepted in the scientific world." Totter is quoted as saying he was warned by other staffers almost as soon as Tamplin started work: "Watch out for that guy. He's not very good and he's going to cause you trouble."

What is one to make of all this name-calling and all the charges and countercharges? One obvious conclusion is that there have been verbal excesses on both sides. Gofman and Tamplin have raised an important issue with regard to the adequacy of existing radiation standards, but unfortunately they may weaken their case by indulging in verbal overkill that alienates their peers and undermines their credibility. On the other hand, if the AEC has really taken punitive action against them—and one must admit that circumstantial evidence suggests this may indeed be the case—then something must be done to right the situation, not only for the sake of Gofman and Tamplin, but for the sake of all future dissidents who want to challenge the agency they work for as well. Gofman's charge that the AEC has "partially succeeded in silencing our presentation of the radiation hazards issue" should be investigated by an impartial party. And his complaint that AEC experts promote nuclear energy at government expense while citizen groups must pay to obtain testimony from nuclear critics like himself and Tamplin seems valid. It may well be true that the Livermore laboratory's mission does not properly include support for a large number of public appearances by Gofman and Tamplin. But if American society is to benefit from hearing both sides in these highly technical debates, then some mechanism must be found to support the technological critics.

—PHILIP M. BOFFEY

Science Adviser: DuBridge Retires, David Nominated as Successor

Lee A. DuBridge's departure from his post as science adviser to President Nixon is being accomplished in a manner very much in character for the former Caltech president. The ceremonial farewells with the President went off in a friendly if slightly formal way, and the announcement of DuBridge's retirement was smoothly timed to coincide with the nomination of a successor, Edward E. David, Jr., currently executive director of communications systems research at Bell Laboratories.

Since there were no visible signs of dissatisfaction on either side, DuBridge's resignation came as more of a surprise than most midstream changes at the White House. The federal budget squeeze has proved an obvious source of frustration to DuBridge during his 19-month tenure as science adviser and director of the Office of Science and Technology (OST), and observers have diagnosed a decline in the status and influence of science in White House councils. But DuBridge's relationship with the President does not seem to have deteriorated, and they parted with expressions of mutual esteem. In explaining his retirement in his letter of resignation, DuBridge wrote, "I have always been convinced that I should retire well in advance of my 70th birthday in 1971. Hence I suggested to you this summer that you should begin the search for my successor and allow me to retire at a date convenient both to him and myself."

David, the product of this search for a successor, at 45 is 23 years younger than DuBridge. In two major ways David's appointment represents a break with the past. He is the first to come to the science adviser's post from industry rather than the university, and he is not of that group who were initiated into the public service in the mobilization of scientists in World War II and have maintained influence since then. David's professional credentials are strong. In addition to his executive post in the highly regarded Bell Labs he is a professor of electrical engineering at Stevens Institute of Technology and a consultant to several universities. He is a member of both the National Academy of Sciences and the National Academy of Engineering and has served as a consultant to a variety of

Lee A. DuBridge (right), retiring science adviser, with his successor Edward E. David, Jr.