

RADIATION POLITICS

Newly released documents illustrate an attitude — at times intensely political — that has shaped the funding and handling of federal radiation research

BY JANET RALOFF

The study probably will not confirm or refute any important hypotheses but should permit a statement to the effect that a careful study of workers in the industry has disclosed no harmful effects of radiation (if the results are negative, as they are likely to be). That statement, supported by appropriate documentation, would seem to justify the existence of the study.

Footnote by Sidney Marks, contract officer of the Mancuso Health and Mortality Study, as appears in a Feb. 28, 1972, memo from John Totter to S. G. English, AEC assistant administrator for research.

During the past year, several studies and congressional hearings have noted signs of a link between human low-level exposures to ionizing radiation and an increased risk of developing cancer. Among the more well-known and controversial is a health and mortality study begun and for many years headed by Thomas F. Mancuso at the University of Pittsburgh. After 13 years, Mancuso's contract with the government was terminated in 1977. Three investigations later, controversy over Mancuso's termination and the attitudes of federal officials reviewing and evaluating his study is still escalating. Mancuso would like to recapture federal funding to continue the study. But whether he gets it or not, attention focused on this study is expected to bring changes to the way radiation research is conducted by the government.

The first Mancuso investigation was conducted by the House Commerce Committee's Subcommittee on Health and the Environment, chaired by former Rep. Paul G. Rogers (D-Fla.). In two days of hearings last February, it sought to find out which of several conflicting reasons was the real explanation for why Mancuso's contract to study workers at the Hanford facility in Richland, Wash., had been transferred to three contractors, all of which had been largely supported by the Department of Energy or its predecessor agencies (the Atomic Energy Commission and the Energy Research and Development Administration).

The three primary reasons that had



Thomas Mancuso at the subcommittee hearings on his contract termination.

been cited were Mancuso's allegedly imminent retirement, his failure to publish and negative reviews by Mancuso's peers on the conduct of his research. All three explanations seemed to fall apart in conflicting testimony and documents offered by DOE officials (SN: 2/18/78, p. 103).

A fourth possible reason that surfaced was that Oak Ridge Associated Universities, a research consortium of universities that share some facilities and staff with DOE's Oak Ridge National Laboratory in Tennessee, might need some shoring up, particularly in its health-effects program. Addition of Mancuso's Health and Mortality Study might give ORAU the stature and long-term guaranteed research funding its supporters sought, subcommittee investigators speculated. But details from the volumes of correspondence — dating from 1972 to the present — that DOE provided the subcommittee from its files on Mancuso never validated that. (ORAU was one of the contractors that DOE selected to take over the Health and Mortality Study.)

In November 1978, some six months after he first requested it under the Freedom of Information Act, Mancuso's attorney received pre-1972 correspondence from DOE's file on Mancuso. It paints a somewhat different picture, one with admittedly more political overtones. Several intra-agency memos and letters from consultants, for example, describe the Health and Mortality Study as scientifically useless because the population it studies is too small and the latent period for radiation-induced cancers too long for statistically significant effects of low-level exposures to show up. Nonetheless, the authors endorse the agency's support of the study on the grounds that the gesture will make the agency look appropriately concerned and contribute to calming any public fear of potential dangers.

For instance, Brian MacMahon of the Harvard School of Public Health writes the AEC's Leonard Sagan in November 1967 that "in my opinion this study does not have, never did have, and never (in any practical sense) will have, any possibility of contributing to knowledge of radiation effects in man." Continuing, however, he says, "I recognize that much of the motiva-

tion for starting this study arose from the 'political' need for assurance that AEC employees are not suffering harmful effects."

Sagan himself says that "it was the unanimous opinion of the [peer-review] group that, aside from a certain 'political' usefulness, it is very unlikely that new information on radiation effects will accrue from this study" (in a Nov. 20, 1967, memo to John Totter, then the AEC's director of the division of biology and medicine).

Another clue to the agency's attitude concerning radiation appears in a draft report by Alex Fremling, manager of the AEC's Richland (Hanford) office. Concerned about findings of a higher incidence of cancers among Hanford employees than among the general population in a 1975 study by Samuel Milham, an epidemiologist for the State of Washington, Fremling writes of a meeting between Mancuso's staff and Milham. He implies that Mancuso's staff was brought in to refute Milham's "disturbing" findings, but "instead it looks like we have support for it," he said. Fremling goes on to say that as a result of the meeting, Ed Alpen of Battelle's Pacific Northwest Laboratory at Hanford "is making noises like [Milham's study] ought to be published or else much more extensive work needs to be done . . . by someone other than Mancuso (and, inferentially at least, by Battelle)." The Hanford Environmental Health Foundation picked up responsibility for Mancuso's study, to be conducted as a joint enterprise with Battelle's PNL.

Milham, who frightened AEC and PNL officials with his suggestion that he was thinking of publishing his findings, perhaps in SCIENCE, was eventually talked out of doing so by the AEC and PNL under the reasoning that Mancuso's study was bigger, better and more accurate.

Not too long after the meeting with Milham, Sidney Marks, the contract officer for Mancuso's study, read the draft of a press release he wanted to clear with Mancuso over the phone. It briefly downplayed Milham's findings.

"Apparently, unknown to Dr. Milham when he did his work, AEC has, for about 10 years, funded a carefully structured study of health effects among nuclear workers, primarily at Hanford, Wash., and Oak Ridge, Tenn., by Dr. Thomas F. Mancuso," it said. It also said that Mancuso's Hanford data show "no evidence of cancer or other deaths attributable to ionizing radiation. . . ." Mancuso refused to endorse it, saying the lack of any such findings in his study could turn out to be a false negative due to a still inadequately analyzed data base.

Marks's successor at the AEC, Walter Weyzen, agreed. As late as March 29, 1977, he wrote that Mancuso would have had a hard time publishing earlier than he did — in 1976 — because the costly and time-consuming data collection and long latency of radiation-induced cancers would have precluded a meaningful analysis.

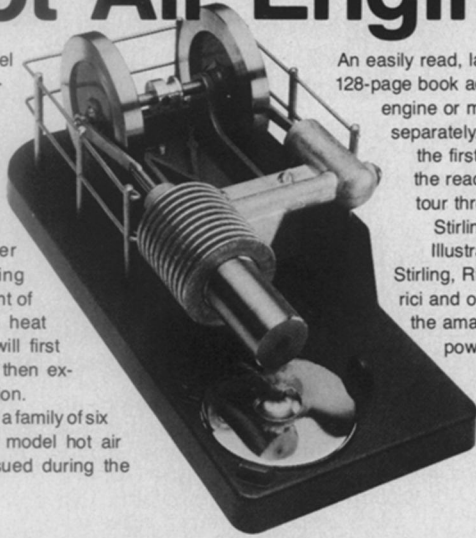
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... Radiation

It was after the press-release incident and before publishing his first positive correlation between Hanford workers and an increase in cancer that Mancuso received a formal notice from the AEC that his contract would be terminated in 1977. When together with Alice Stewart and George Kneale (SN: 1/20/79, p. 44) he did find a positive correlation, AEC officials changed their tack. His lawyer says that despite former pleas that Mancuso publish quickly and frequently, they now suggested he hold back and review the data a while longer. He did not.

The workers in his study averaged a total two-rad lifetime exposure — easily equivalent to the cumulative lifetime exposure individuals may receive from routine medical X-rays.

Findings of a cancer link to low-level radiation exposures would have broad policy implications not only for nuclear workers but also for anyone receiving multiple X-rays throughout his or her life. It would therefore seem a conservative tactic to pursue leads to any such link with more research, to aggressively seek independent confirmation or denial of the original findings. But that is not the picture that pulls together out of DOE's Mancuso file. Instead it documents administrators and contractors who consciously support what they believe is a worthless scientific endeavor as protection against workmen's compensation claims.

Neither the investigation by DOE's in-

spector general nor one by the General Accounting Office (released this week) consider these attitudes or actions as being inappropriate factors in the termination of Mancuso and transfer of his study to familiar contractors on or near two of DOE's larger laboratories. Mancuso's attorney and the public-interest research institute which has provided temporary funding for Mancuso, Stewart and Kneale since 1977 do. They will begin talks with the Commerce subcommittee which has oversight of DOE's radiation-research program soon. They hope that despite Rogers's departure from the subcommittee, there remains sufficient interest among members to pursue further investigatory hearings.

Meanwhile, the United Steelworkers union, the International Association of Machinists and Aerospace Workers and several public-interest groups have asked Joseph A. Califano Jr., Secretary of the Department of Health, Education and Welfare, to refund Mancuso. They would also like to see all health-effects research on radiation removed from DOE. HEW is heading an interagency review group on radiation, which is due to release its findings this month. Among rumored conclusions of this White House appointed panel are the granting of health benefits to veterans exposed to radiation during weapons tests and the placement into one federal agency of all responsibility for monitoring exposures and setting exposure standards. □



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