

May 23, 2000

Mr. James Muckerheide
President
Radiation, Science, and Health, Inc.
P.O. Box 843
Needham, Massachusetts 02194

Dear Mr. Muckerheide:

I am writing to respond to your letter of April 5, 2000, to Chairman Meserve, and to address your allegations and requests. First and foremost, I would like to assure you and your colleagues that the U.S. Nuclear Regulatory Commission (NRC) does not take lightly its fundamental regulatory mission to ensure adequate protection of public health and safety. Allegations of problems are taken very seriously. In your letter to Chairman Meserve, you and Dr. Rockwell allege that "the AEC/NRC/DOE, along with ICRP/NCRP/BRER-BEIR/UNSCEAR/EPA/other national rad protection agencies, have acted to suppress" data supporting the conclusion that "low-dose radiation is not harmful and may be beneficial." Further, you allege that Office of Nuclear Regulatory Research staff are responsible for "wrongful efforts to suppress relevant data." Finally, you refer to a "current commitment to waste massive public resources by fabricating public fears of radiation." Although I respectfully disagree with these allegations, I have referred your letter to the NRC Inspector General for whatever action is deemed appropriate.

It is my understanding that you and your organization are requesting NRC to initiate several actions. I will address these items individually.

- (1) "Investigate the allegations that Draft NCRP Report SC1-6 constitutes 'material false statement' or equivalent."

As you are aware, the NCRP report review process is designed to ensure the highest level of scientific and technical review. Draft NCRP reports are reviewed by the full Council membership, Honorary members, and Collaborating and Special Liaison organizations. When the report is submitted for Council review, it is also placed on the Internet for public scrutiny and comment. Draft reports are modified on the basis of the comments received. Consequently, the NCRP review process is lengthy and comprehensive. NRC reviewed draft NCRP Report SC1-6 as a collaborating organization. During the NRC review of the draft report, NRC staff from this office, as well as the offices of Nuclear Material Safety and Safeguards and Nuclear Reactor Regulation, did not identify any "material false statements." Furthermore, the NCRP acknowledged in an April 20, 1999 letter to you and Dr. Myron Pollycove that alternative dose-response models, including the possibility of a threshold at low doses, cannot be rejected on the basis of present knowledge. This acknowledgment is consistent with the information presented at the March 1996 and March 1999 ACNW meetings.

- (2) "Direct the NRC staff (technical staff, General Counsel, Inspector General, and others as warranted) to report on the data, and allegations of falsification of data and suppression of evidence, reflecting the referenced ACNW and ACRS transcripts and related documents."

Your letter has been referred to the NRC Inspector General for appropriate action.

- (3) "Obtain outside reviewers that include the scientists and analysts who have documented the peer-reviewed scientific data that contradict the LNT..."

The NRC awarded a three-year grant to the NCRP to conduct a critical assessment of all biological studies of the effects of ionizing radiation, as well as radiobiological theory of effects, in the low-dose and dose-rate region (e.g., less than 200 mSv [20 rem] and 10 mSv h⁻¹ [1 rem h⁻¹]) and then to summarize the effects. NCRP convened what it believed to be a diverse, balanced, and qualified scientific committee of national experts to conduct this assessment. The final report of this committee is not yet available.

Moreover, the National Academies of Science and Engineering have a contract, sponsored by the NRC, the Department of Energy, and the Environmental Protection Agency, to convene a panel of national and international experts to (a) conduct a comprehensive review of all relevant epidemiological data related to the risk from exposure to low-dose, low-LET radiation, (b) assess the current status and relevance to risk models of biologic data and models of carcinogenesis, and (c) define and establish principles on which quantitative analyses can be based. All data and information available since the 1990 BEIR V report (*Health Effects of Exposure to Low Levels of Ionizing Radiation*) will be used to do a comprehensive reassessment of health risks resulting from exposures to ionizing radiation. This three-year study currently is scheduled to be completed late in 2001. The results of the study will be published as *BEIR VII: Health Effects of Low Levels of Ionizing Radiation*.

- (4) "Initiate a rulemaking on low-level radiation health effects to establish an NRC policy on radiation risk."

It is premature to consider such an action before the publication of the National Academies BEIR VII report on *Health Effects of Low Levels of Ionizing Radiation*. When the BEIR VII report is published, NRC staff will review the conclusions and recommendations of this study and other relevant information and will recommend to the Commission what, if any, appropriate actions should be taken. However, any interested person may petition the Commission to issue, amend, or rescind any regulation. For additional information on filing a petition for rulemaking, you may contact David L. Meyer, Chief, Rules and Directives Branch, Division of Administrative Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555, or telephone the Rules and Directives Branch on (301) 415-7162 or on the toll-free number for inquiries concerning NRC regulations: (800) 368-5642, extension 7162.

- (5) "Defer all extreme decommissioning and 'cleanup' standards, and other extreme interventions, that are without interim risk to public health and safety."

The radiological criteria for license termination [an all-pathways individual dose limit of 0.25 mSv (25 mrem) per year for unrestricted use] are codified in 10 CFR Part 20, Subpart E. These criteria were established through a public process using a sound technical basis and a cost-benefit analysis. The NRC is not aware of any information that would warrant regulatory action to defer application of these radiological criteria at this time.

- (6) “Assure that the NRC Staff, especially in Regulatory Research, is fully cooperating with the U.S. GAO investigation currently being undertaken at the request of Senator Domenici, and that the NRC will lead the effort to establish scientifically and institutionally credible assessment and resolution of radiation health effects data, science, and the lack of risks at low doses.”

The NRC makes every effort to cooperate fully with all U.S. General Accounting Office (GAO) investigations and to respond to all inquiries from members of Congress as a matter of course. The GAO investigation of radiation risk and risk harmonization is no exception. Congress has provided the Department of Energy (Office of Science) with the resources to conduct a comprehensive assessment of the “Biological Effects of Low-Dose and Dose-Rate Radiation.” Information obtained from this ten-year research program will be reviewed and evaluated by NRC staff, and recommendations on regulatory impact will be forwarded to the Commission when they are available.

- (7) “NRC should further encourage research into both the delivery of Low-Dose Radiation for medical applications, and the technology research needed to establish revised standards.”

NRC is aware of the need to conduct low dose and low dose rate research to better understand the health effects associated with radiation exposure. In fact, NRC has been very supportive of efforts to provide long-term funding to DOE with additional funds specifically earmarked for a review of the Japanese atomic bomb dosimetry. This agency will encourage the National Academies to incorporate the revised dosimetry data, especially the Hiroshima neutron data, into a final BEIR VII report. The medical application of low-dose radiation is within the purview of the Department of Health and Human Services, National Institutes of Health, and thus I would encourage you to contact the National Institutes. Similarly, technology research for the delivery of low-dose radiation for medical applications is within the purview of the U.S. Food and Drug Administration, Center for Devices and Radiological Health.

Again, as I indicated to you and Dr. Pollycove in a March 1999 letter on a similar topic, this Office will critically examine the conclusions and recommendations contained in the final reports of the NCRP and the National Academies when they are published. This Office has

-4-

been tasked by our Commission to provide recommendations, as appropriate, that will ensure adequate protection of the public health and safety and the environment. If a determination is made that regulatory action is required, it will be undertaken through a public process with all stakeholders to ensure an opportunity for maximum public participation.

Sincerely,

/RA/

Ashok C. Thadani, Director
Office of Nuclear Regulatory Research

been tasked by our Commission to provide recommendations, as appropriate, that will ensure adequate protection of the public health and safety and the environment. If a determination is made that regulatory action is required, it will be undertaken through a public process with all stakeholders to ensure an opportunity for maximum public participation.

Sincerely,

/RA/

Ashok C. Thadani, Director
Office of Nuclear Regulatory Research

DOCUMENT NAME:A:\MUCKERHEIDE ALLEGATION 2.WPD *SEE PREVIOUS CONCURRENCE

To receive a copy of this document, indicate in the box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

OFFICE	RES/DRAA*	RES/DRAA*	RES/DRAA/D*	TECH-ED*	RES/D*
NAME	EVHolahan:jf	CTrottier	TKing	ABeranek	AThadani
DATE	04/19/00	04/ 19/00	04/24/00	04/ 24/00	04/24/00

OFFICE	EDO*	OCM	OGC*		
NAME	WTravers	RAMeserve	JLieberman		
DATE	04/26/00	05/19/00	5/3/00		

Official Record Copy