



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUL 06 1979

Dr. Joel Yellin
Harvard University
John F. Kennedy School of Government
Cambridge, MA 02138

Dear Dr. Yellin:

We have received your letter of May 29, 1979 requesting additional information on our comments to your paper. As you may know, Mr. D. F. Bunch is no longer with the NRC staff, having resigned as of May 31, 1979. This has been partly responsible for the delay in response to you. Our point-by-point response is as follows:

1. We apologize for the partial illegibility of the comments sent to you. They result from xeroxing the originals onto a slightly smaller size paper, which has resulted in the cutoff of some of the marginal comments. Another xerox copy will not remedy this defect, and unfortunately, the original copy is in the possession of Mr. Bunch. We suggest you contact Mr. Bunch at (904) 249-2979.
2. The NOAA tests referred to were intended to be references on the general topic of deposition and depletion modeling. A summary of some of the work is given in Regulatory Guide 1.111, which is enclosed.
3. We are not aware of other historical summaries in this regard. We believe that the comment on "selective presentation" may have been brought about by your not recognizing that there have been shifts in siting policy. Perhaps these may more clearly be discerned in those sites that have been rejected, as pointed out in NUREG-0478.
4. A brief list of references, in addition to those already referenced in your draft, is included in Attachment A.
5. The Blond-Aldrich comments are based not only upon the Aldrich report, but on NUREG-0396 as well, a copy of which is enclosed.
6. A copy of Martin's summary on more recent evacuations is enclosed.
7. Our understanding is that contingency evacuation plans were initially recommended out to distances of 20 miles (not 25) for TMI largely as a result of concern over the hydrogen "bubble", but that these plans did not reflect the inherent radiological hazard. Once an analysis and evaluation of the core-melt potential and consequences of the accident had been made, a revised emergency response (which included both sheltering and evacuation) out to a distance of ten miles was recommended for the worst situation envisioned.

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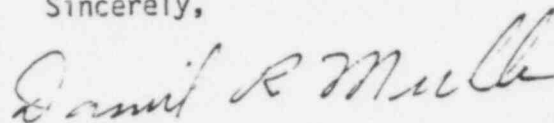
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8. Note 19 reads "not in man-use rem" and is intended to indicate that for health effects the unit of biological dose equivalent or "rem" should be used.

On Note 34, the marginal comment reflects uncertainty as to whether the value of 350r was used in your model as an LD₅₀ or used as a threshold value, above which the probability of acute fatality is unity, as indicated in equation 1.

I hope this has satisfactorily answered your questions.

Sincerely,



Daniel R. Muller, Acting Director
Division of Site Safety and
Environmental Analysis
Office of Nuclear Reactor Regulation

Enclosures:

1. Regulatory Guide 1.111
2. NUREG-0396
3. Martin's summary
4. References (Attachment A)

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