COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
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November 20, 1979

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attn: Lee V. Gossick
Executive Director of Operations

Subject: PRM-20-12 Final Disposition
Your Letter of 9-13-79

Dear Mr. Gossick:

Thank you for having made a final determination on the disposition of the above petition for rulemaking.

I feel obliged to make a few closing comments on the NRC's final position to which I shall respectfully continue to disagree.

1. The petition was denied "principally because there does not appear to be any reduction in risk associated with the petitioned change".

   It is agreed that no data was presented which could qualitatively prove or disprove dose reduction. Such data would require a structure to show the apportionment of dose between an individual's activities conducted within a radiation area compared to those activities inside the restricted area, but outside of the radiation area.

   However, this can be inferred from general consideration. Under present regulations, significant radiation levels exist outside of designated radiation areas. In fact, persons outside of a radiation area are permitted to receive up to 1¼ rem per quarter, just as much as individuals inside a radiation area. Yet those individuals outside the radiation area do not have the benefits of posted information (signs) which would stimulate modification of behavior to reduce dose to ALARA.

2. "There is a potential for unnecessary exposure of workers as a result of less posting under the petitioned change".

   The opposite is true. Presently unnecessary exposures at levels 2, 3, 4 mrem/hr etc. are permitted because of an incomplete posting system.

3. The cost impact of the proposed rule change was never quantitated. However, implementation of rule changes by regulatory agencies is part of their routine cyclical operations. Implementation by facilities should only impact posting costs and routine worker instruction. There is no implication that facility design criteria are inadequate.

4. I also feel obliged to comment on the text of the letter of September 13, 1979.

   a) OSHA's regulation 29CFR1910.96 for definition and labeling of radiation areas is consistent with the NRC. However, that portion of the OSHA regulations were not formulated by OSHA, but adopted for expediency and consistency. If the NRC would change its standards, OSHA would be expected to follow.

   b) Allowing unposted radiation levels in restricted areas to be higher than those deemed reasonably safe for unrestricted areas because of the presence of licensee control or for any other reason, amounts to encouraging increased exposure.

      It treats 1¼ rem/quarter as a goal rather than encouraging ALARA since the individual is required to function without additional warnings on the premise that the licensee has insured the individual is not in a radiation area so the worst dose possible is 100 mrem in 5 days (5 rem per year).

      Therefore, the individual may work in the restricted area blithely unconcerned whether he is in an area where levels are 10 microrems per hour or 4.9 millirem per hour.

   c) There is a misunderstanding of the proposed regulation change. It does not mandate posting the boundary of the restricted area as a radiation area. This would occur when the sole criteria for establishing the resticted area is ambient exposure levels.

   d) I do not accept that posting is required at "steady state levels of 0.8 mrem/hr". The present definition of radiation area requires that dose to an individual not exceed 100 mrem in 5 consecutive days. It does not say

"if such individual were continuously present". Five consecutive days permits a flexible prorated exposure level based upon occupancy factors (average work week). 0.8 mrem/hr implies 120 consecutive hours (5 days) which is not permitted to be considered because it requires residency in the area and residency is not allowed under the definition of a restricted area.

Five consecutive days, however, should be changed to seven consecutive days, however, to be conservative and recognize that overtime is frequently a large part of many operations. In addition 100 mrem in seven days corresponds to the unrestricted area limit.

In closing, I continue to respectfully disagree with the NRC's final judgment on this petition. Either the proposed rule change or the alternative suggestion in my letter of June 13, 1979 to establish a new term "Low Radiation Area" is necessary to insure that potentially hazardous radiation levels do not exist unposted outside of a radiation area. In order to accomplish this, radiation warning posting should begin at the transition point where permissable unrestricted area exposure levels are exceeded.

Very truly yours,

L. R. Urciuolo

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