

OH-50-1 (Docket)

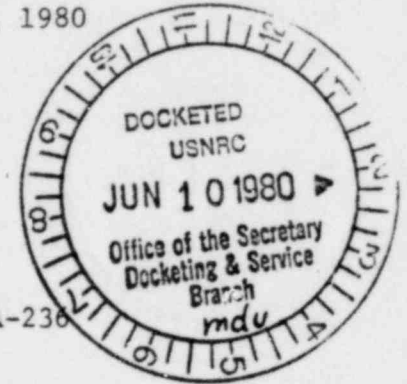
NORTHEAST UTILITIES



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April 16, 1980

DOCKET NUMBER **PR-20** (30)
PROPOSED RULE **(45 FR 20493)**



NEE-80-RA-236

Dr. Phillip Plato
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Dear Phillip:

Thank you for the invitation to attend the April 23 meeting of in-house dosimetry processors. I will, unfortunately, be unable to attend and am, therefore, enclosing the following comments and views germane to the proposed agenda for the meeting:

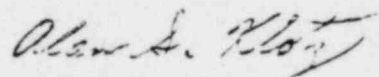
1. There should be an NRC-sponsored mandatory dosimetry test program for all civilian personnel dosimetry processors. Military personnel dosimetry processors could be invited to participate without regard to certification.
2. I am in favor of the eight major changes in the latest draft of the revised HPSSC Standard, as stated in your letter of April 4 to Personal Dosimetry Processors. Changes 1, 2, 5 and 7 will produce a cleaner standard, while changes 3 and 4 will yield irradiation conditions more closely approximating the environment within containment of an operating nuclear power plant.
3. Some dosimetry processors would find it beneficial if the testing laboratory would maintain an NBS-certified cobalt-60 source to provide calibration and test irradiations. This would also allow dosimetry processors to significantly extend the energy range of their dosimeters over which dose analyses are valid. Although dosimeters respond almost the same to identical cesium-137 and cobalt-60 exposures, they differ by at least 4% in their response to identical cesium-137 and cobalt-60 doses. Bear in mind that there are numerous medical and industrial installations and processes utilizing curie quantities of cobalt-60 for which proper calibration of personnel dosimetry equipment is important.
4. The test categories, test irradiation ranges and tolerance levels of the revised HPSSC Standard contained in table 2 of your April 4th letter are quite acceptable.

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5. All X-ray irradiations should be performed using only currently available NBS X-ray techniques to allow a processor to cross-compare results or resolve an X-ray irradiation problem. With reference to table 2 of your April 4th letter, NBS X-ray technique HFD is, therefore, not so good a choice as HFC or HFE.
6. The Standard should require that two beta particle sources, e.g., a filtered strontium/yttrium-90 source as well as a thallium-204 source, be made available for testing. The thallium-204 source is more representative of beta irradiation from reactor fission products.
7. Of the 27 recommendations contained on pages 46 and 47 of NUREG/CR-1064, I am strongly in favor of 1-6, 16-22 and 24-26.
8. The benefits to Northeast Utilities of participating in a personnel dosimetry testing program are the improvement in the accuracy of personnel monitoring and associated quality control procedures and the development of better dosimetry calibration and analysis techniques.
9. The cost of setting up the testing laboratory should be borne by the NRC, while the testing fee should be borne by the processors and can be prorated based upon the number of categories in which a processor is tested.
10. The NRC should set a performance standard such that any processor not meeting that standard is prohibited from performing personnel dosimetry. Four test programs per year would be sufficient to give deficient processors adequate opportunity to improve their performance and become certified. A list of currently certified personnel dosimetry processors should be maintained and made available to all who would desire a copy.
11. I would favor having the testing laboratory organized as a private laboratory under contract to the NRC.
12. Finally, I would favor the establishment of an NRC-approved Certification and Review Board having technical supervision of the testing laboratory and to which appeals and suggestions can be presented by processors.

Very truly yours,



Alan S. Klotz, Ph.D.
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cc: R. C. Rodgers
C. R. Palmer