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UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406

JUN. 26 1989

MEMORANDUM FOR: John E. Glenn, Chief
Medical and Commercial Use Safety Branch

FROM: Lee H. Bettenhausen, Chief
Nuclear Materials Safety Branch, Region I

SUBJECT: Target Criteria/Guidance Relative the Release of
Contaminated Soil For Unrestricted Use

In the past, we have provided guidance and direction to several licensees relative to release of contaminated soil for unrestricted use. In each of these instances, the criteria supplied was derived on a case-by-case basis, since the Commission has not yet arrived on a policy pertaining to matters below regulatory concern. While we are not uncomfortable in continuing with a case-by-case review of each instance that requires our attention, we would appreciate your review and concurrence in the basic guidance we have, and plan to continue to utilize.

Our basic policy relative to cobalt-60 contamination of soil is derived from the note to John R. White from Susan G. Bilhorn, dated September 18, 1987, enclosed. While the specific matter pertains Radiation Technology, Incorporated (RTI), we found that the guidance (i.e. 10 microR/hr at 1 meter, and 8 picocuries/g) is so conservative (when compared to Regulatory Guide 1.109, Table E-6; and NUREG/CR-0494, Appendix C) that we are prepared to use it whenever cobalt-60 soil contamination issues in unrestricted areas arise.

Such is the current situation involving an Agreement State licensee, Neutron Products Incorporated (NPI), Dickerson, Maryland. Most recently, John R. White of my staff has been requested by the State of Maryland, Department of the Environment to provide testimony on July 22, 1989, relative our evaluation of radiological conditions at the NPI facility. In the inspection of this facility on March 13-14, 1989, by Messrs. White and Nimitz of this office, it was discovered that unrestricted property (not owned or leased by NPI), adjacent to NPI's facility, contained localized spots of cobalt-60 contamination ranging as high as 1,384 picocuries/g of soil. Background radiation emanating from NPI made it impossible to quantify the resultant radiation levels at 1 meter from the ground. Therefore, it will be recommended that further radiological characterization of the property should be accomplished.

However, it is apparent to us that the State of Maryland will request Mr. White or others to discuss or provide any NRC guidance or position relative to such soil contamination. We believe that this is a fair question, and are prepared to present the guidance as described in Attachment 1 of the enclosed document. Accordingly, we would appreciate your input or comment on this guidance beforehand to assure that our position is generally consistent with any other regulatory approaches.

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We request that any response on this matter be made by July 7, 1989. Thank you for your cooperation.


Lee H. Bettenhausen, Chief
Nuclear Materials Safety Branch

Enclosure As Stated

cc:


MKnapp, RI
JWhite, RI
JKinneman, RI
MShanbaky, RI