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U.S. Nuclear Regulatory Commission  
Region 1  
475 Allendale Road  
King of Prussia, PA 19406

Dear [REDACTED]:

The purpose of this letter is to request the Nuclear Regulatory Commission's (NRC) position on several questions regarding remediation of sites contaminated with 11.e.(2) byproduct material.

As you know, the United States Department of Energy (DOE) is now planning to remediate several sites in Tonawanda, New York under the Formerly Utilized Sites Remedial Action Program (FUSRAP). The radioactive material on the sites is recognized by DOE and the New York State Department of Environmental Conservation (DEC) to be byproduct material as defined in section 11.e.2 of the Atomic Energy Act. We are currently discussing with DOE several options for remediation of these sites.

As you acknowledged in your April 23, 1996 letter to me, the NRC does not license 11.e.(2) material for which DOE has taken responsibility under FUSRAP. Four questions have arisen regarding NRC's jurisdiction once DOE completes its responsibilities under the FUSRAP program.

1. Will NRC exert any jurisdiction over these sites once the FUSRAP remediation is complete? DEC's *Cleanup Guideline for Soils Contaminated with Radioactive Materials*, Technical Administrative Guidance Memorandum 4003, is a dose-based method for deriving cleanup criteria. The application of TAGM 4003 to the Tonawanda FUSRAP sites could result in residual concentrations of thorium in soil in the range of 20 to 40 picocuries per gram, after remediation. In that event, would the NRC accept the determination of DOE and DEC that the decontamination is complete?
2. One option allowed under TAGM 4003 is to apply deed notations or other institutional controls to preclude certain future land uses. If such a measure is used at the Tonawanda FUSRAP sites, will the NRC see a need to license the residual 11.e.(2) material?

3. In a September 13, 1989 letter (copy enclosed) from [REDACTED], then Director of NRC's Region IV, to [REDACTED] of the Texas Department of Health, an NRC position on blending was presented. [REDACTED] wrote,

If the radium-226 concentration in soil exceeds 5 pCi/g . . . the material is to be removed and placed in an approved disposal facility. The NRC does not consider it appropriate for the 5 pCi/g to be used as a soil mixing or soil blending criteria, with the propose of allowing the byproduct material to remain in place. Similarly, your second and third points involve soil mixing and fail to include disposal in an approved facility; therefore, they cannot be considered as appropriate disposal methods of byproduct materials.

Would this position apply to the 11.e.(2) material on the Tonawanda FUSRAP sites?

4. In his September 13, 1989 letter [REDACTED] went on to add,

The soil blending that has been proposed does not represent an acceptable disposal option. However, if no viable disposal option exists, a licensee may apply for onsite disposal of byproduct materials.

[REDACTED] referenced radon exhalation and long-term stability requirements in 10 CFR 40, Appendix A. Would such requirements apply to the Tonawanda FUSRAP sites, if DOE uses blending as the method to meet cleanup criteria? Would the landowners be required to obtain 11.e.(2) licenses from the NRC?

It is essential that these issues be settled as soon as possible, as we are now directing our attention to the criteria that will be used to affect the final remediation of these sites.

On a related issue, we have not yet received confirmation of the interim response you provided last year to our questions about NRC's policy of not licensing 11.e.(2) material that is being addressed under FUSRAP. In your April 23, 1996 letter to me, you wrote that the NRC was "searching the archives for the formal documentation of this practice," and that your letter would serve as "an interim response until that information becomes available." We would appreciate an update on the status of NRC's formal response on that issue.

