

J. Lynch

REGIONAL TECHNICAL ASSISTANCE REQUEST FORM

Date: 06/27/95

Mail or E-Mail to: Donald A. Cool, Ph.D., Director  
Division of Industrial and Medical Nuclear Safety, NMSS

From: Cynthia D Pederson (CDP1) Region III *Cynthia D. Pederson*  
Director, Nuclear Materials Safety & Safeguards

License: IL-01013-01 License No. Not applicable

☐ Control No. N/A (if applicable)

☐ Letters dated June 1, 1995 (two with same date); April 27, 1995 and June 7, 1995

☐ Suggested change in licensing procedure (enclosed): N/A

☐ Problem/Issue: Illinois received a request from an IL licensee to use sand contaminated with DU in the manufacture of DOT approved shipping containers. They are requesting to distribute these containers as exempt/unregulated products.

☐ Action Required: IL requesting guidance regarding how the NRC would deal with such a request.

☐ Recommended Action (with revisions): ☐ Approve or ☐ Reject

It appears that the Commission would not approve this request for the following reasons:

1. Dilution of the DU in concrete to meet the 0.05% by wt. provision for source material, is not an acceptable proposal.
2. The material is a waste product from a licensed operation.
3. PS-CP-1 may apply in this case, that is, the request may be frivolous since the DU does not appear to enhance the shielding characteristic of the proposed containers. Further, if distributed as an exempt item these containers may cause a problem if found years from now, since analysis of the concrete would cause concern since the material is in excess of the NRC unrestricted release criteria.
4. Even if the applicant applied for a license to distribute the product as a general licensed commodity, justification 5.a., page 2 of the June 1, 1995 letter is not a reasonable argument. It appears that the average concentration is in excess of 30 pCi/g which is the NRC limit for contaminated soil. Therefore, it is likely that this proposal would likely increase disposal cost since the volume of material to be disposed of would be greater.
5. The analysis protocol & equipment to be used for sampling the DU sand does not appear to be technically sound.
6. RIII calculations and physical form of the material all indicate that the DU would not significantly enhance shielding. Additionally, the applicant did not adequately respond to the State request for calculations which would demonstrate that the DU enhanced the shielding.

9606070-64 2 pp.

H/1

Remarks: The request should not be approved.

Headquarters Reviewer: \_\_\_\_\_

Regional Reviewer: G. McCann

Reviewer Code: N/A

Reviewer Phone No.: (708) 829-9856 Fax No.: ( ) N/A

Request Needed by: 07/31/95 (date)

Form TAR-10  
8/93

CC OSP

J. Lynch