

April 16, 2000

MEMORANDUM TO: Ronald Bellamy, Chief
Decommissioning and Laboratory Branch
Division of Nuclear Materials Safety
Region I

FROM: Larry W. Camper, Chief **/RA/**
Decommissioning Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

SUBJECT: TECHNICAL ASSISTANCE REQUEST 127749 - EVALUATION
OF DERIVED CONCENTRATION GUIDELINE LEVELS FOR
THE ST. ALBANS EXTENDED CARE CENTER IN QUEENS,
NEW YORK

I am writing in response to your Technical Assistance Request (TAR) for the staff of the Division of Waste Management (DWM) to review and approve the St. Alban's Extended Care Center's Derived Concentration Guideline Level (DCGL) of 35 picocuries per gram (pCi/g) of Strontium-90 (Sr^{90}) in soil and concrete that will remain at the facility at the completion of decommissioning.

To support this request, Region I staff provided the following information:

1. TAR dated February 2, 2000, summarizing the licensee's request and Region I's activities to validate the licensee's proposed DCGLs. Note that this TAR also included several ADAMS Accession Numbers for additional information supplied by the licensee to support the request (please refer to your February 2, 2000, request for these documents);
2. Pages 3-3, 3-4, 5-7, and 5-8 of Volume I of the U.S. ARMY Corps of Engineers report entitled "Radiological Characterization Survey Report" describing the concrete Ejector Pit and the method used to obtain concrete cores from the Ejector Pit floors and walls;
3. A letter from Michael T. Van Der Karr (Roy F. Weston, Inc.) to Randy Godfrey (U.S. Army, Corps of Engineers) dated March 3, 2000, summarizing the volumes of concrete that could remain if the proposed DCGLs were approved and also core sampling results for the walls and floors of the Ejector Pit;

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4. Pages 5-1 through 5-8 of Volume I of the U.S. ARMY Corps of Engineers report entitled "Radiological Characterization Survey Report" describing the radiological condition of the Ejector Pit; and,
5. Figure 5-4 from the report entitled "Draft Final Work Plan" - Volume 1 for the Radiological Characterization Survey of the St. Albans Veterans Administration Extended Care Center, Queens, New York and accompanying fax cover sheet discussing the dimensions of the Ejector Pit.

The DWM staff's evaluation of the request is summarized in the attached Technical Evaluation Report.

Based on the staff's evaluation of the licensee's request, the staff recommends that the DCGL for concrete not be approved until the licensee can adequately demonstrate to Region I that it is highly unlikely that an individual would occupy the Ejector Pit for more than about 1100 hours per year. In addition, the staff recommends that the DCGL for soil not be approved until the licensee has adequately justified either the use of the default distribution coefficients for Sr-90 used in its dose modeling or its use of the nondispersion modeling approach. The staff also recommends that Region I forward the licensee's justification for using the Sr-90 distribution coefficients or the nondispersion modeling approach to DWM for review.

If you have any questions concerning the staff's evaluation, please contact my staff.

Attachment: Technical Evaluation Report for
Technical Assistance Request 127749

cc: Frederick Sturz, IMNS

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- 4. Pages 5-1 through 5-8 of Volume I of the U.S. ARMY Corps of Engineers report entitled "Radiological Characterization Survey Report" describing the radiological condition of the Ejector Pit; and,
- 5. Figure 5-4 from the report entitled "Draft Final Work Plan" - Volume 1 for the Radiological Characterization Survey of the St. Albans Veterans Administration Extended Care Center, Queens, New York and accompanying fax cover sheet discussing the dimensions of the Ejector Pit.

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Technical Assistance Request 127749

cc: Frederick Sturz, IMNS

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