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Docket File 1341
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URFO:RFB
Docket No. 40-1341
04001341273E

MEMORANDUM FOR: Docket File No. 40-1341

FROM: Randall F. Brich, Project Manager
Licensing Branch 1
Uranium Recovery Field Office, RIV

SUBJECT: REVIEW RIPRAP QUALITY CONTROL PROGRAM - TVA
EDGEMONT DECOMMISSIONING PROJECT

Background

By letter dated April 23, 1985, Tennessee Valley Authority (TVA) responded to NRC concerns regarding the riprap quality control program, as expressed by letter dated March 22, 1985. The NRC letter stated that final approval of the entire disposal site perimeter drain system will be contingent upon satisfactory demonstration by TVA that an adequate, active, quality control program is followed to ensure that the emplaced riprap conforms with the design specifications.

To address these NRC concerns TVA submitted the enclosure entitled, "In-Place Rock Sizing Quality Control Program," which describes the on site program.

Discussion

The TVA enclosure, reprinted below in its entirety, states TVA's commitment to an active quality control program.

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IN-PLACE ROCK SIZING QUALITY CONTROL PROGRAM

"The purpose of this program is to ensure that the placement of all riprap used in the decommissioning project meets specifications.

The riprap shall be placed in a manner which will produce a reasonably well-graded mass of stone with the minimum practical percentage of voids. The entire mass of stone shall be placed so as to be in conformance with the lines, grades, and thickness shown on the MacLaren Engineer's Disposal Site Design plans. Riprap shall be placed to its full course thickness at one operation and in such a manner as to avoid displacement of the underlying bedding material. The riprap shall be placed in a manner which will ensure that the larger rock fragments are uniformly distributed, and the smaller rock fragments serve to fill the spaces between the larger rock fragments in such a manner as will result in a well-keyed, densely placed, uniform layer of riprap of the specified thickness. Hand placing or rearranging of individual stones will be required only to the extent necessary to secure the results specified above.

To assure compliance with specification, inspection by visual examination will be performed to insure the proper gradation of stone has been placed. Verification of compliance with specifications will be documented by the Chief Engineer and verification records will be maintained."

Based on my review of the QC program and visual observations of emplaced riprap at the disposal site on April 16-17, 1985, it appears that the riprap sizing quality control program adequately satisfies NRC concerns on thickness, uniformity and minimization of voids. However, the program does not address the concerns NRC has expressed on rock sizing. Visual inspection is insufficient to ensure that the rock meets the required gradation.

Conclusions

Based on my review of the quality control program, I have determined that it fails to address the concerns expressed in the March 22, 1985 NRC letter. Specifically, the method (visual inspection) by which TVA ensures that the rock meets the sizing design specifications is

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insufficient. Therefore, TVA should be notified, in writing, that their program is inadequate and to submit their rock sizing quality assurance program for NRC review and approval.

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Randall F. Brich, Program Manager
Licensing Branch 1
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Original Signed By

Edward F. Hawkins

Approved by:

Edward F. Hawkins, Chief
Licensing Branch 1
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