400 Chestnut Street Tower II

TENNESSEE VALLEY AUTHOR

March 5, 1981

YCRD-50-566/81-03

Mr. James P. O'Reilly, Director Office of Inspection and Enforcement U.S. Nuclear Regulatory Commission Region II - Suite 100 101 Marietta Street Atlanta, Georgia 30309

Dear Mr. O'Reilly:

YELLOW CREEK NUCLEAR PLANT UNIT 1 - LAMINATION OF SOIL IN ERCW SPRAY POND -YCRD-50-566/81-03 - FIRST INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. W. Wright on February 4, 1981, in accordance with 10 CFR 50.55(e) as NCR YC-144. Enclosed is our first interim report. We expect to submit our next report by August 11, 1981.

If you have any questions concerning this matter, please get in touch with D. L. Lambert at FTS 857-2581.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager Nuclear Regulation and Safety

Enclosure

8103110584

cc: Mr. Victor Stello, Jr., Director (Enclosure)) Office of Inspection and Enforcement U.S. Nuclear Regulatory Commission Washington, DC 20555

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ENCLOSURE

YELLOW CREEK NUCLEAR PLANT UNIT 1 LAMINATION OF SOIL IN ERCW SPRAY POND YCRD-50-566/81-03 FIRST INTERIM REPORT

Description of Deficiency

As part of TVA's construction testing, earthfill block samples are required to be taken from category I earthfill placement. Laminations in block samples have been observed in six out of seven samples taken from the west ERCW spray pond (unit 1). Most of the laminations occurred at a depth of one to three inches from the top of the block samples. Laminations in the earthfill liner in the west spray pond were possibly caused by overcompaction of the liner and/or excessive speed of hauling equipment.

Interim Progress

TVA will evaluate the earthfill block samples to determine if the laminations will significantly affect seepage and/or the structural integrity of the west spray pond. TVA construction has been scarifying each completed earthfill layer before placing a new layer to achieve bond between layers. Since most of the block samples indicated laminations near the top of the upper layer and the samples were taken before scarifying, it is likely there will be less laminations in the actual fill. However, this needs to be confirmed in the field. To achieve this, additional block samples will be taken in the vicinity of the earlier block samples which indicated laminations. The samples and the walls of the pits which are excavated to obtain the samples will be inspected for laminations. If required, these pits will be extended horizontally and/or vertically to inspect the laminations. The samples with laminations will be tested for permeability, shear strength, soil classification, and density. The need for corrective action on the inplace earthfill will be evaluated on the basis of field observations and the laboratory test data.