

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

May 14, 1981

YCRD-50-566/81-14

Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303



Dear Mr. O'Reilly:

YELLOW CREEK NUCLEAR PLANT UNIT 1 - CONCRETE PLACEMENT - FUEL BUILDING -
YCRD-50-566/81-14 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector D. Quick on April 14, 1981 in accordance with 10 CFR 50.55(e) as NCR YC-152R1. Enclosed is our final report.

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

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
CONCRETE PLACEMENT - FUEL BUILDING
10 CFR 50.55(e)
YCRD-50-566/81-14
FINAL REPORT

Description of Deficiency

Nonconformance report (NCR) No. YC-152R1 was made significant and reportable because it involves significant rework of a safety-related structure. This NCR involves concrete, rebar, and bolt coupler placement in the unit 1 Fuel Building in concrete pour No. F1-N1. The top grade of the nonconforming area of the pour (5.02 ft x 5.52 ft) should have been poured to elevation 507.0 but was poured to 507.5 (slab grade) instead, while the bottom elevation was poured to 506.0 (bottom of slab) instead of 505.0. Consequently, the associated rebar was mislocated. Four bolt couplers were also left out of the pour. These deficiencies were discovered after concrete placement by project engineers while planning and laying out work for adjacent pours. The error was because of craftsmen, project engineers, and quality control inspectors misinterpreting the drawings.

Safety Implications

Had this condition remained uncorrected, the deficient concrete placement in the Fuel Building could jeopardize the structural integrity of the Fuel Building, thus adversely affecting the safe operation of the plant.

Corrective Action

The nonconforming condition was evaluated by TVA's Division of Engineering Design (EN DES). EN DES's disposition was to (1) chip out the excess concrete, (2) position rebar to comply with design drawings, (3) install the four missing bolt couplers, and (4) repour the slab to proper elevation as shown on the design drawings.

To preclude a recurrence, additional independent reviews of the rebar inspection takeoff checklist were implemented immediately by Civil-Quality Control. Also, craft foremen will verify proper installation with their fabrication checklists. Project engineers were instructed to make a thorough study of all drawings before checking the pours.

The excess concrete has been chipped out. The rebar should be relocated, bolt couplers installed, and the slab repoured by May 29, 1981.

Other TVA nuclear plants are not affected by this deficiency.