TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

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August 17, 1981

BLRD-50-438/81-49

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:

BELLEFONTE NUCLEAR PLANT UNIT 1 - LOCKOFF PRESSURE ON POSTTENSIONING SYSTEM - BLRD-50-438/81-49 - FIRST INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. V. Crlenjak on July 17, 1981 in accordance with 10 CFR 50.55(e) as NCR BLN CEB 8104. Enclosed is our first interim report. We expect to submit our next report by November 24, 1981. We consider 10 CFR Part 21 to be applicable to this deficiency.

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, Director (Enclosure)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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ENCLOSURE
BELLEFONTE NUCLEAR PLANT UNIT 1
LOCKOFF PRESSURE ON POSTTENSIONING SYSTEM
10 CFR 50.55(e)
BLRD-50-438/81-49
FIRST INTERIM REPORT

Description of Deficiency

Inryco, Incorporated is the contractor, contract 75C53-85380, to supply and install the posttensioning system for the primary containment structures. Allowable lockoff stresses for each tendon have been established by Inryco in accordance with the April 1973 Trial Use Version of the ACI 359 code and the contract specifications. These lockoff stresses are required to provide assurance that the containment structure will have adequate prestress force to perform its intended safety function.

In order to resolve a problem with certain stressing gauges being out of calibration, Inryco performed liftoff tests on several horizontal tendons. These liftoff tests revealed that, in several cases, lockoff stresses were substantially lower than predicted.

Interim Progress

Inryco submitted a program to TVA which outlined their proposed action to investigate the problem and determine the extent and nature of the deficiency. This program consists, in part, of in-place tendon liftoff sampling, review of material certifications, check of all gauge and jack calibrations, and material testing. The program has been initiated.

Inryco has submitted a progress report to TVA and offered some preliminary hypotheses as to the cause of the problem which Inryco claims relates to tendon relaxation. Since the testing program is incomplete and the hypotheses have not been fully evaluated, discussion of these hypotheses is premature for this report. Further information will be provided upon completion of the testing program and refinement of the analysis. At this point, no program for corrective action has been established.