

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

83 OCT 6 4 8:30
October 6, 1983

BLRD-50-438/83-50
BLRD-50-439/83-43

U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - MISSING O-RING SEALS ON FLEXIBLE
CONDUIT - BLRD-50-438/83-50, BLRD-50-439/83-43 - FIRST INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector P. E.
Fredrickson on September 6, 1983 in accordance with 10 CFR 50.55(e) as NCR
BLN 2296. Enclosed is our first interim report. We expect to submit our
next report by February 8, 1984.

If you have any questions, please get in touch with R. H. Shell at
FTS 858-2688.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills

L. M. Mills, Manager
Nuclear Licensing

Enclosure

cc: Mr. Richard C. DeYoung, Director (Enclosure)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Records Center (Enclosure)
Institute of Nuclear Power Operations
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ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2
MISSING O-RING SEALS ON FLEXIBLE CONDUIT
BLRD-50-438/83-50, BLRD-50-439/83-43
NCR 2296
10 CFR 50.55(e)
FIRST INTERIM REPORT

Description of Deficiency

TVA uses various brands of flexible conduit manufactured by several vendors. Some types of flexible conduit are supplied with integral moisture seals while other types require the insertion of a separately supplied "O" ring to preserve the NEMA rating of the enclosure to which flexible conduit is attached. At Bellefonte, TVA has determined that, contrary to the particular manufacturer's instructions, flexible conduit requiring an "O" ring has been installed in various areas of the plant without these "O" rings. The cause of this failure has been determined to be inadequate site procedures concerning installing flexible conduit to manufacturer's instructions.

Interim Progress

TVA has determined that for enclosures containing electrical components or for enclosures interconnected to equipment by a conduit system not designed or routed to exclude water, the following actions can be used to correct the lack of an "O" ring:

1. For cables in electrical enclosures which have not been terminated, TVA will disassemble the flexible conduit installation and an "O" ring seal will be installed per manufacturer's instructions.
2. For cables in electrical enclosures which have been terminated, TVA will apply a sealant around the joint between the installed conduit connector and the outside of the electrical enclosure and also around the joint between the gland nut and the flexible conduit.

For enclosures without electrical components (i.e., being used as pull or splice boxes) or with conduit-equipment interconnections that are already routed or sealed to exclude water, no corrective action is required.

To prevent recurrence of this problem, TVA is preparing procedure BNP-QCP-3.32 to include instructions to comply with manufacturer's instruction concerning installation of flexible conduit connectors at both class 1E and non-1E electrical enclosures.