CENTRAL FILES

USNRC REGION II
ATLANTA, GEORGIA

79 JUL 9 A10:28

FLORIDA POWER & LIGHT COMPANY

July 2, 1979
L-79-180

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

Dear Mr. O'Reilly:

Re: RII:JPO
Docket 50-389
IE Bulletin 79-02

Florida Power & Light Company has reviewed the subject bulletin regarding concrete expansion anchor bolts. The following information is provided in response to the bulletin.

1. Base Plate Flexibility

In the past prying forces for the type of application which is the subject of the bulletin have generally not been calculated, primarily because the loads are small and the assumption of single curvature bending of the plate results in an overestimation of the required plate thickness. Check calculations were performed for hanger design installed at St. Lucie Unit #1. The results confirm the prying effect is negligible for this type of anchorage.

Where appropriate for St. Lucie Unit #2 the prying forces will be calculated and accounted for in the design utilizing the methods of Fisher and Struik as presented in "Guide in Design Criteria for Bolted and Riveted Joints," published by Wiley, 1974.

2. & 3. Factors of Safety & Cyclic Loading

For Unit #2, the design criteria for expansion anchor applications specify safety factors of 4 for static loading, 5 for impactive loading and 15 for vibratory and seismic loading.

4. Installation Procedures

The overall philosophy has been to avoid the use of concrete expansion anchors through the design effort. Concrete expansion anchors may be employed for attaching seismic Category I hangers/restraints where embeds are not available and/or bridging between embeds is not feasible. Design, construction and inspection procedures have been developed to assure proper utilization and installation practices.

A0/I
2

79078

7908800745

OFFICIAL COPY

PEOPLE ..SERVING PEOPLE

These procedures are available for review at the site.

Very truly yours,

Robert E. Uhrig

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU:TCG:cf

cc: Harold F. Reis, Esquire

PP&L

TWO NORTH NINTH STREET, ALLENTOWN, PA. 18101 PHONE: (215) 821-5151

MAR 3 1978

Mr. Boyce H. Grier
Director
Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

387/858

SUSQUEHANNA STEAM ELECTRIC STATION
IE BULLETIN NO. 77-01
ER 100450 FILE 840-4
PLA-225

Dear Mr. Grier:

This is a clarification to the response which was previously sent to you on this bulletin. Our AE has verified that no ITE pneumatic time delay relays, or relays with repeat accuracy greater than ± 15%, as described in IE Bulletin 77-01, are used on any SSES safety related systems provided by the AE. Pneumatic time delay relays that may be used on safety related systems purchased by the AE have a repeat accuracy specified which is less than the ± 15% in item #2 of IE Bulletin 77-01, therefore, the SSES pneumatic relays do not fall within the description of the IE Bulletin.

Our NSSS Vendor has verified that none of their safety related panels contain relays covered by IE Bulletin 77-01. Our NSSS Vendor, however, has not verified that their subvendor supplied components contain none of these relays. We are working with them to determine the feasibility for checking these subvendors.

Very truly yours,

N. W. Curtis
Vice President - Engineering and Construction

NWC:KMM

A0 2
GD

PP&L

TWO NORTH NINTH STREET, ALLENTOWN, PA. 18101 PHONE: (215) 821-5151

MAR 1 1978

Mr. Boyce H. Grier
Director
Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Docket Nos. 50-387
50-388

SUSQUEHANNA STEAM ELECTRIC STATION
IE BULLETIN NOS. 77-05 AND 77-05A
ER 100450 FILE 840-4
PLA-224

Dear Mr. Grier:

In response to IE Bulletin Nos. 77-05 and 77-05A, our AE has completed a review of the electrical connector assemblies procured by them for Susquehanna SES. They have found that although they do not use the connectors tested at Sandia Laboratories, they use a similar type manufactured by Amphenol for Westinghouse. Westinghouse has tested these connectors for radiation exposure and published Westinghouse Report PEN-TR-77-36. Westinghouse is forwarding to our AE an interim report on a partial test program already performed and is presently performing further LOCA testing on the connectors. Westinghouse expects to have its final report available in 3 to 4 months at which time our AE will review the results and we will inform you of our conclusions.

We have not obtained our NSSS Vendor's review. We expect this review to be completed about May 1, 1978.

Very truly yours,

N. W. Curtis
Vice President - Engineering and Construction

NWC:KMM

A0 2
GD

PP&L

TWO NORTH NINTH STREET, ALLENTOWN, PA. 18101 PHONE: (215) 821-5151

FEB 24 1978

Mr. Boyce H. Grier
Director
Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pa.

Docket Nos. 50-387
50-388

SUSQUEHANNA STEAM ELECTRIC STATION
IE BULLETIN 77-07
ER 100450 FILE 840-4
PLA-219

Dear Mr. Grier:

The following is a complete response to IE Bulletin 77-07 with the responses numbered to coincide with the Bulletin section.

1.0 SSES electrical penetrations are designed and manufactured by Westinghouse. The SSES low voltage penetrations use an epoxy potting compound. Unlike GE Series 100, they do not depend upon an epoxy sealant and a dry nitrogen pressure environment to ensure the functional capability as required by the plant's safety analysis report.

1.1 SSES will use the Westinghouse modular design penetration for all penetrations except the medium voltage penetrations. The medium voltage penetrations will be the canister design with ceramic bushings.

SSES 1 & 2 will have the following Westinghouse electrical penetration identification numbers for use in the safety systems:

WX 32847, WX 32849
WX 32851, WX 32853
WX 32854, WX 32855, and
WX 32856.

1.2 The transition connector pins are coated with an insulation varnish to provide an insulating jacket in the space used for monitoring leakage. In the seal area, the bare pins are embedded in the epoxy.

A0 2
GD

PP&L

TWO NORTH NINTH STREET, ALLENTOWN, PA. 18101 PHONE: (215) 821-5151



2.0 Westinghouse ships the penetration pressurized with nitrogen.

Pressure during long term storage need not be maintained provided insulation resistance measurements are performed after installation. After installation, the pressure inside the penetration is to be kept above 15 psig.

3.0 Westinghouse states that the penetration should be kept pressurized at 15 psig minimum during normal operation. This pressure is for leak checking and has no bearing on the functional capability of the penetration assembly.

3.1 Westinghouse has demonstrated by testing that the penetrations will perform their design function under LOCA conditions.

3.2 The test results provided by Westinghouse assure compliance with the regulations (GDC 4, Appendix A to 10CFR, Part 50; QA Criteria, Appendix B to 10CFR, Part 50).

If you require further information, please let us know.

Very truly yours,

N.W. Curtis
Vice President-Engineering & Construction