



UNITED STATES
NUCLEAR REGULATORY COMMISSION
 REGION II
 101 MARIETTA ST., N.W.
 ATLANTA, GEORGIA 30323

Report No.: 50-261/88-31

Licensee: Carolina Power and Light Company
 P. O. Box 1551
 Raleigh, NC 27602

Docket No.: 50-261

License No.: DPR-23

Facility Name: H. B. Robinson

Inspection Conducted: December 12-16, 1988

Inspector: <u>J.R. Wiseman</u>	<u>1/10/89</u>
for J. R. Harris	Date Signed
for <u>J.R. Wiseman</u>	<u>1/10/89</u>
for D. E. Ward	Date Signed
Approved by <u>T. E. Conlon</u>	<u>1-11-89</u>
T. E. Conlon, Chief	Date Signed
Plant Systems Section	
Engineering Branch	
Division of Reactor Safety	

SUMMARY

Scope: This was an announced Triennial Postfire Safe Shutdown Capability Reverification and Assessment (Module 64150). The team assessed whether the licensee has a functioning configuration management program as it relates to fire protection and postfire safe shutdown capability. The inspection verified that the licensee has a program to maintain the postfire safe shutdown capability achieved during the initial validation inspection previously conducted at H. B. Robinson (HBR) February 4-8, 1985.

The inspection covered four major areas as they relate to Appendix R compliance and postfire safe shutdown capability including plant modification review; reverification of Appendix R fire protection features; review of postfire safe shutdown procedures and equipment; and, review of engineering evaluations for fire protection. Emphasis was placed upon review of the plants configuration control program procedures as they relate to maintaining Appendix R compliance and the postfire safe shutdown capability.

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Results: During this inspection, the NRC inspectors discussed the plant Appendix R configuration management program history with the licensee's plant and corporate staff. The licensee's responses to these discussions and the results of this assessment indicate that Carolina Power and Light (CP&L) has developed and implemented a design change program which considers the potential affects of plant modifications on Appendix R compliance and the postfire safe shutdown capability at HBR.

In general, the licensee's configuration management program as it relates to maintaining Appendix R compliance and postfire safe shutdown capability was found to be adequate with several strong features. Management appears to be taking the appropriate actions to maintain Appendix R fire protection long-term compliance. Therefore, based upon the satisfactory results of this inspection, a detailed 10 CFR 50 Appendix R compliance reverification inspection for HBR is not warranted at this time.

No violations or deviations were identified during this inspection.

Strengths and weaknesses are summarized below:

Strengths

- Plant management is actively pursuing programs which should insure long-term compliance with Appendix R and maintain the postfire safe shutdown capability. This is evident based on the approval of plant design change procedures which require an Appendix R review and their continued attempts to improve these procedures by implementing procedure revisions as more controls become necessary.
- The licensee's technical expertise in the areas of maintaining Appendix R compliance appears strong. This is evident based on the quality of the procedure developed by the Nuclear Engineering Department (NED) for conducting detailed Appendix R reviews of plant design changes. This procedure appeared to be complete and very comprehensive.
- The fire protection staff at the plant and in the corporate offices appear to clearly understand the technical requirements of maintaining Appendix R compliance.

No significant programatic weaknesses were identified in the licensee's configuration management program related to maintaining Appendix R compliance and the postfire safe shutdown capability.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *A. Bishop, Nuclear Engineering Department, Corporate
- *S. Clark, Configuration Control
- *J. Curley, Director, Regulatory Compliance
- *C. Dietz, Manager, RNPD
- *B. Gainey, Supervisor, Operations Services
- *E. Harris, Director, ONS
- *J. Hart, Nuclear Engineering Department, Corporate
- *R. Morgan, General Manager
- *J. Royal, Nuclear Engineering Department, Corporate
- *D. Sayre, Regulatory Compliance
- *J. Sheppard, Manager, Operations

NRC Resident Inspectors

- *L. Garner
- *Attended exit interview

2. Assessment of the Configuration Management Program

Section 50.48 of 10 CFR 50 requires H. B. Robinson (HBR) to comply with Sections III.G, III.J, and III.O of Appendix R, Fire Protection Program for Nuclear Facilities Operating Prior to January 1, 1979. HBR's compliance with 10 CFR 50 Appendix R was initially verified by the NRC during an inspection conducted February 4-8, 1985.

The purpose of this inspection was to determine whether the licensee had developed and implemented a configuration management program which insures that Appendix R compliance and the postfire safe shutdown capability is maintained over the life of the plant. If this inspection had determined that such a program did not exist or was not functioning a detailed inspection to reverify the licensee's continued compliance with the requirements of 10 CFR 50 Appendix R would have been recommended.

a. Configuration Management Program

In order to verify that the configuration management program related to Appendix R compliance and postfire safe shutdown capability was adequate, the inspectors conducted a detailed review of plant and corporate procedures governing the preparation and review of design change documents to determine:

- that these procedures include provisions that insure all design change documents are reviewed for Appendix R compliance and postfire safe shutdown concerns,
- that these procedures provide adequate guidance for the reviewer to determine if there is impact on Appendix R compliance and the postfire safe shutdown capability, and
- that these procedures include provisions to ensure that all design change documents which do impact Appendix R compliance and postfire safe shutdown capability are incorporated into the analyses, procedures, and programs which support and implement this capability.

In addition, to verify the implementation of these procedures the inspectors selectively reviewed design change documents for modifications to those plant systems required for postfire safe shutdown.

(1) Configuration Control Procedures

Initially in their review of the design change program at HBR, the inspectors established the methods by which a change to the plant can be made. Through discussions with plant personnel, four types of design change documents were identified.

Modification Package (MOD)
 Temporary Modification (TM)
 Design Change Notice (DCN)
 Engineering Evaluation (EE)

The following procedures governing the preparation and review of MODs, TMs, DCNs and EEs prepared by the HBR site personnel and CP&L Corporate engineering staff were reviewed:

<u>Procedure No./Revision</u>	<u>Title</u>
MOD-005/Rev. 13	Modification Package Development and Revision
*MOD-018/Rev. 1	Temporary Modifications
MOD-012/Rev. 18	Design Change Notice
*MOD-001/Rev. 10	Engineering Evaluations
Section 3.17/Rev. 1	Nuclear Plant Engineering Procedures Manual/Section 3.17 Fire Protection Program for Nuclear Power Facilities
**NPMP/Rev. 0	Nuclear Plant Modification Program

Procedure No./Revision
(cont'd)

Title

FPP-RNP-600/Rev. 1	10 CFR 50 Appendix R, Long-Term Compliance Plant Design Change Review Procedure
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*Revisions to procedures MOD-018 and MOD-001 were being processed during the inspection. Drafts of these revisions were reviewed by the inspectors

**Procedure NPMP has an effective date of January 1, 1989

The plant MOD is the primary method used to generate physical changes to the HBR plant which could affect Appendix R compliance or the postfire safe shutdown capability. Procedure No. MOD-005 governs the process by which MOD packages are prepared and reviewed. Section 5.2.1, Review and Approval, of MOD-005 requires the Cognizant Engineer to select the required review organizations and designate these organizations on the Mod and Set Point Revision Form. As guidance to the Cognizant Engineer in selecting these organizations, the procedure references Exhibit B of procedure NPMP. This exhibit requires assignment of a review for 10 CFR 50 Appendix R compliance for all MOD packages at the Plan or Mod stage of development. The Plan stage of MOD development is the point following a MOD proposal acceptance by CP&L management and represents the beginning of the design development. The Mod stage of MOD development is the point where the design is complete and the package is ready for final implementation in the plant. This assigned review is to be conducted by the Cognizant Engineer in accordance with Section 3.17 of the Nuclear Plant Engineering Procedure Manual. This section contains a checklist which the Cognizant Engineer completes to determine if the MOD has potential impact on Appendix R compliance and if a more comprehensive review is required by the NED mechanical group. This group is responsible for ensuring long-term compliance with 10 CFR 50 Appendix R.

The inspectors found the checklist contained in Section 3.17 of the Nuclear Plant Engineering Manual to be very comprehensive. The checklist is designed such that an engineer with limited knowledge of Appendix R requirements can determine if their MOD package will have any potential impact on long-term Appendix R compliance.

If the Cognizant Engineer determines the MOD package has potential impact on Appendix R compliance the package is required to be submitted NED mechanical. Using the guidance

provided in FPP-RNP-600 the MOD package is reviewed by NED in detail to determine what affects, if any, the MOD has on Appendix R compliance.

The inspectors found Procedure FPP-RNP-600 to be an excellent procedure. This procedure describes in narrative form the Appendix R criteria by which each MOD package is to be reviewed. References to pertinent plant analyses, drawings and calculations are also provided. In addition, the procedure review steps are also summarized into a number of flow charts to assist the reviewer further in determining the impact of MOD on Appendix R compliance. The inspector felt this procedure was complete and a strength in the configuration management program related to Appendix R compliance and the postfire safe shutdown capability. The NED review is documented on a Plant Design Change Review Summary Form which also serves as the method to initiate necessary changes to plant analyses, procedures or additional modifications which may be required as a result of the MOD package under review.

A TM, controlled under MOD-018, presently receives a Fire Protection Review only if the TM affects fire detection, fire suppression, fire barriers, emergency exit and access, or involves an increased fire hazard. Impact on Appendix R compliance and the postfire safe shutdown capability is not presently identified as a review criteria in MOD-018. However, the licensee provided the inspectors with a draft of a revision to the procedure which will specifically require a review of all TMs in accordance with section 3.17 of the Nuclear Plant Engineering Procedures Manual for determining impact on Appendix R compliance. This procedure revision was in plant management review and is expected to be approved in the near future. Therefore, the procedure for preparing TMs will provide adequate guidance on conducting an Appendix R review upon issuance of the revision presently in review.

DCNs are issued against the original MOD package to incorporate new design criteria and field changes. Procedure MOD-012 governs the preparation and review of DCNs. Section 5.5 of MOD-012 outlines the review requirements for final approval of the DCNs. As is the case for the MOD package, DCNs reviews are assigned based on the criteria in Exhibit B of the NPMP. This exhibit clearly requires a review of DCNs for impact on Appendix R compliance. Therefore the inspector found this procedure adequate to ensure DCNs which impact Appendix R compliance or the postfire safe shutdown capability will receive an adequate review.

EEs are generated to evaluate the quality class of materials, the technical acceptability of test results, interchangeability of parts, design margin changes, generic technical documents and authorizing replacement in kind. Procedure MOD-001 governs the preparation and review of EEs. At the time of the inspection this procedure did not specifically require the review of EEs for impact on Appendix R compliance. However, the licensee provided the inspectors with a draft of a proposed revision to this procedure. This revision will require the review of all EEs to the criteria of Section 3.17 of the Nuclear Plant Engineering Procedures Manual. This procedure revision is presently in the developmental stages. Therefore, upon issuance of the procedure revision, adequate guidance for reviewing EEs for potential impact on Appendix R compliance will be provided.

Based upon the review of the procedures described above, and following the implementation of the procedure revisions in progress, the plant procedures for generating plant design changes should contain adequate information to insure that all design change documents are reviewed for impact on Appendix R compliance and the postfire safe shutdown capability.

(2) Implementation of Configuration Control Procedures

The inspectors selected a sample of plant MODs for review to ensure that Appendix R compliance reviews required by plant procedures were being implemented. The DCNs issued against the MOD packages listed below were also reviewed by the inspectors to ensure they had received an Appendix R review:

MOD Number/DCNs

M-445/DCNs 1-9
 M-585/DCNs 1-4
 M-819/DCNs 1-14
 M-851/DCNs 1-12
 M-860/DCNs 9-13
 M-864/DCNs 1-17
 M-872/DCNs 1-16
 M-875/DCNs 1-33
 M-890/DCNs 1-3
 M-891/DCNs 1-3
 M-897/DCNs 1-3
 M-900/DCNs 1-4
 M-909/DCNs 1-3
 M-911/DCNs 1-3
 M-912/DCNs 1
 M-920/DCNs 1-4
 M-937 (Preliminary Review)
 M-939 (Preliminary Review)

The inspectors found that for each MOD package and DCN listed above, a detailed Appendix R compliance review as outlined in Procedure No. FPP-RNP-600 had been conducted.

Based on the cursory review of the Appendix R review summaries for the MODs listed above, the inspectors selected the following MOD packages for a more detailed review.

- M-909 - This modification installed two heaters in the Station Battery Room in order to maintain optimum room temperature. The MOD package called for the installation of two heaters which meet the National Electrical Code requirements for use in explosive environments and cabling to power the heaters.

The inspectors verified by field inspection that the heaters installed were approved for use in explosive environments and that the fire barriers breached during the heater installation were resealed. In addition, the inspectors verified that the penetration seal drawings for the breached penetrations were revised where necessary and that the combustible loading calculation for this room had been revised to include the combustibles added by this MOD. No discrepancies were noted in the review of this MOD.

- M-891 - This modification replaced worn letdown stop valves LCV-460A and LCV-460B and relocated the valves outside the Reactor Coolant Pump (RCP)-A bay and installed a new manual isolation valve in the letdown line outside the pump bay.

These two valves are identified in the licensee's Safe Shutdown Component Index (Document No. FPP-RNP-100; Revision 3) as safe shutdown components with associated circuits/spurious operation concerns. The inspectors reviewed the MOD package to determine if the relocation of the valves had any impact on the licensee's analysis for these valves. The containment building at HBR is considered one fire area. The MOD used the existing cables for the valves up to their old valve location and then routed new cable to the new valve location. Since the new cables were added to the same fire area as the existing equipment and cables, the MOD did not add any additional associated circuit/spurious operation concerns.

- M-920 - This modification provided isolation between the safety-related control circuitry for the Auxiliary Feedwater (AFW) Pumps and the non-quality Main Feedwater Pumps' control circuitry. This MOD rerouted the control cables associated with AFW valve V2-16B which is identified in the licensee's Safe Shutdown Component Index as postfire

safe shutdown related. The valve is required to be operational for the safe shutdown method defined as Alternate B. Prior to this modification the control cables associated with this valve were only routed in fire areas where Alternate A shutdown was credited.

The inspectors reviewed the cable routing described in the MOD package associated with the following control circuits for AFW valve V2-16B to verify they had not been routed through an Alternate B shutdown fire area. In addition the inspectors conducted of field walkdown of these cables:

<u>From/ To</u>	<u>Cable No.</u>	<u>Fire Zone</u>	<u>Fire Area</u>
RTGB/ Aux. Pnl. DF	C2663C	22 19	A
RTGB/ Aux. Pnl. DF	C2663D	22 19	A
Aux. Pnl. DF/ MCC-10	C2663B	19	A

The inspectors found that these cables are only routed in areas where Alternate A shutdown is credited. In addition, the inspectors verified that the new cable routings for this valve had been incorporated in the licensee's Safe Shutdown Cable Schedule (Document No. FFP-RNP-150, Revision 3).

- M-939 - This modification upgraded the protective devices associated with Motor Control Centers (MCCs) 5, 6, 9 and 10. These MCCs are safe shutdown related as identified in the licensee's Safe Shutdown Component Index.

The inspectors verified that the upgraded circuit protection devices had been analyzed by the licensee against the requirements of Appendix R for associated circuits concerns. This review is documented in the 10 CFR 50 Appendix R Long-Term Compliance Plant Design Change Review Summary Form for EE 107-CS-02. In addition the inspectors verified that the new circuit protection devices had been incorporated in the licensee's Associated Circuit Common Power Supply Analysis, (Calculation Set RNP-E-8005). This analysis was preliminary at the time of the inspection since the MOD was being implemented during the refueling outage. The licensee is presently incorporating the analyses prepared by a CP&L contractor into a CP&L calculation.

In addition to the review of the above MODs, the inspector verified that the compensatory measures described in CP&L's letter dated, October 27, 1988, were in place. These compensatory measures were established while MOD M-935 is being implemented during the present refueling outage. M-935 upgrades the low voltage fire detection and actuation system at HBR. The inspectors found these fire watches to be in place and documented.

The inspectors also reviewed a number of EEs during the inspection. These EEs are discussed in Paragraph 2.e.

Based on the review of the procedures and plant design changes described above it appears that the licensee has a functioning configuration management program in place for maintaining long-term Appendix R compliance and the postfire safe shutdown capability.

b. Appendix R Features

Appendix R to 10 CFR 50 requires certain fire protection features to be provided for the separation of the redundant safe shutdown systems/components in the same fire area. These features include automatic suppression, automatic detection, fire barriers, radiant energy shields and spacial separation. If a licensee proposes alternate methods of protecting the redundant systems/components, an exemption from the applicable requirements of Appendix R must be requested.

During this inspection, the inspectors verified that the plant configuration as described in NRC Safety Evaluations (SEs) granting exemptions from the requirements of Appendix R had not changed significantly to affect the bases of these SEs. In addition, the adequacy of emergency lights installed to illuminate operator access and egress paths and safe shutdown equipment was reverified.

(1) NRC Safety Evaluation Review

The inspectors selected the following fire protection features for inspection to verify that the bases for October 25, 1984 and September 11, 1986 SEs were still valid.

(a) October 25, 1984 SE

This SE granted an exemption from the separation requirements of Section III.G of Appendix R for the Component Cooling Water (CCW) Pump room based in part on the following:

- Partial area automatic suppression is provided in the room which protects the pumps and pump cables.

- Power cables for the A and C CCW pumps are protected by a one-hour rated fire barrier.

The inspectors verified by field walkdown that the suppression system installed to protect the CCW pumps and cables still provided adequate protection and that the A and C CCW power cables routed in the following raceways were protected by a one-hour rated fire barrier.

<u>CCW Pump</u>	<u>*Raceways</u>
A	DS503 DS504 BX73
C	24137 24138

*As identified in the Safe Shutdown Cable Schedule (FFP-RNP-150).

(b) September 11, 1983 SE

This SE in section 2.0 granted an exemption from the requirements of Section III.G.3 of Appendix R from providing full area automatic suppression in Fire Area A, Auxiliary Building, and in Section 3.0 granted an exemption from the same requirements of Appendix R in Fire Area B, Charging Pump Room.

The approval of the exemption for Fire Area A was based in part on the following:

- Fire Zone 7 has partial area automatic suppression.
- Fire loading in every fire zone is low (less than 30 minutes duration) except zones 12 and 13.

The inspectors conducted a walkdown of Fire Zone 7 and found the suppression system still provides adequate coverage to the protected areas. A review of the combustible loading for all fire zones in Fire Area A found that the loading in fire zones 6, 7, 18 and 23 had increased to a calculated duration equal to or greater than 30 minutes with the most significant change being in Fire Zone 7 where the duration had changed from approximately 28 minutes to approximately 46 minutes. Through discussions with the licensee's staff it was determined that the majority of the combustible loading change was the result of a recalculation of the fire loading due to cables

insulation and that the actual plant configuration had not changed significantly. However, an evaluation specifically documenting the acceptability of the combustible loading changes for these zones was not available.

The inspectors expressed concern to the licensee's staff that, although insignificant in this case, all plant changes should be evaluated against the bases for exemption requests outlined in the NRC SEs. Any deviations from these bases should, as a minimum, be documented as acceptable in a written evaluation. Significant changes from the bases which affect the ability to achieve safe shutdown may constitute an unreviewed safety question for which prior NRC approval of the change may be required.

The approval of the exemption for Fire Area B was based in part on the separation of the fire area from all other plant areas by these hour fire barriers.

The inspectors found that these barriers have been identified on plant drawings and procedures as Appendix R fire barriers which must be maintained.

(2) Emergency Lighting

The inspector reviewed the adequacy of emergency lighting along operator access and egress paths and at the safe shutdown equipment locations described in Procedure DSP-002, Hot Shutdown Using the Dedicated/Alternate Shutdown System; Revision 5.

The adequacy of the lighting was verified by field walkdown of each procedure step with a HBR licensed operator. At each manual operation location the inspectors verified that emergency lighting was provided and it illuminates the required equipment.

During this inspection, it was noted that many emergency lights were not properly aligned. This problem had been previously identified by the licensee and was credited to the great deal of work being conducted during the present refueling outage. The licensee's staff provided the inspectors with a copy of the outage schedule which showed the surveillance procedure OST-640, to realign the emergency lights would be conducted prior to the completion of the outage.

Based on the discussion above, the inspectors found that the emergency lighting appears to provide adequate illumination for the operator actions outlined in Procedure DSP-002.

c. Postfire Safe Shutdown Procedures

(1) Licensed Operator Requalification Program for Dedicated Shutdown Procedures

The inspectors reviewed the training program provided by the licensee for licensed operators on the following Dedicated Shutdown Procedures (DSPs);

<u>Procedure No.</u>	<u>Title</u>
DSP-001	Alternate Shutdown Diagnostic
DSP-002	Hot Shutdown Using the Dedicated/ Alternate Shutdown System
DSP-003	Hot Shutdown From the Control Room With a Fire in the Charging Pump Room
DSP-004	Hot Shutdown From the Control Room With a Fire in the Component Cooling Water Room
DSP-005	Hot Shutdown From the Control Room With a Fire in the North Cable Vault
DSP-006	Hot Shutdown From the Control Room With a Fire in the South Cable Vault

This training program includes classroom discussions, a plant tour and exam on each of the procedures. Each licensed operator eligible to be assigned duties described in these procedures attends annual training.

The inspector reviewed the training records for the licensed operators and verified they had attended the required training for 1987 and 1988. Based on the review of the licensee's training program and training records the inspectors found the material appeared to be complete and effective.

In addition, during the review of the emergency lights described in Paragraph 2.b(2), the inspectors conducted a walkdown of Procedure DSP-002 with one of the licensed operators. This operator had attended the required training and was very knowledgeable of the procedure and the required actions outlined in the procedure.

(2) Damage Control Measures

Appendix R Section III.L.5 requires fire protection features to be provided for structures, systems and components important to safe shutdown and to be capable of limiting fire damage so that systems necessary to achieve and maintain cold shutdown are free of fire damage or can be repaired such that the equipment can be made operable and cold shutdown achieved within 72 hours. Materials for such repairs are required to be readily available on site and procedures are to be in effect to implement such repairs.

The inspectors reviewed the following procedures and verified by field inspection that the materials described in the procedure as necessary to facilitate the required repairs was available on site and stored in its proper location:

<u>Procedure No.</u>	<u>Title</u>
DSP-008	RHR Pump Power Repair Procedure
DSP-009	RHR System Flow Indication Repair Procedure
DSP-010	Steam Generator PORVs Control Repair Procedure
DSP-011	RHR System Temperature Indication Repair Procedure
DSP-012	Pressurizer PORV Control/Power Repair Procedure
DSP-013	RHR Flow Control Repair Procedure

This required equipment was found stored in the locations designated by the procedures in the quantities required to accomplish the repairs.

d. Associated Circuits Review

The inspectors reviewed the plant design control procedures described in Paragraph 2.a.(1) to verify that the associated circuit concerns of Appendix R are adequately addressed. Section 3.17 of Nuclear Plant Engineering Procedures Manual requires a detailed Appendix R review if loads are added or deleted from a power supply, circuit protection devices are changed, fire barriers are affected and circuits routings associated with postfire safe shutdown equipment are changed.

This detailed Appendix R review is conducted under Procedure FFP-RNP-600. The associated circuit concerns of Appendix R, common power supply, spurious operations, and common enclosure, are clearly outlined in Section 4.4.4 and in the flow chart titled, Addition or Revision of Associated Circuits.

Plant procedures presently require a "like for like" replacement of plant components, breakers and fuses. Replacement with a component other than those identified in plant design drawings, will, as a minimum, require a EE to document the acceptability of replacement components. Plant procedures for such EEs are presently being revised to require an Appendix R review.

Based on the above discussion, the licensee has implemented configuration management procedures which should insure the associated circuit concerns of Appendix R are adequately addressed.

e. Review of Engineering Evaluation

Generic Letter (GL) 86-10 Enclosure 2, Appendix R Questions and Answers, allows licensee's to perform evaluations to justify automatic suppression, detection and fire barrier designs which are not in strict compliance with Appendix R. These evaluations are required to be performed by a Fire Protection Engineer. In addition, these evaluations must be retained for subsequent NRC audits.

The licensee has prepared a number of EEs for unqualified fire barrier penetration seals in accordance with the guidance contained in GL 86-10. The inspectors reviewed the following EEs in detail during the inspection:

EE No.

87-155
87-156
87-157
87-161
87-184
87-214

Each of these evaluations was generated as a result of the penetration seals described in the EEs failing the required Technical Specification surveillance. These penetration seals were found degraded and as opposed to repairing the seals the EEs were generated.

The EEs clearly state the basis for accepting the penetration seals as is, but they do not state why it is not feasible to repair the seal. Therefore, the inspectors questioned the licensee as to why the penetration seals could not be repaired as opposed to justifying the as is configuration. In addition, the penetration seals were field inspected by the inspectors and in at least one case, EE-87-161, it appeared to the inspectors that repairing the penetration seal was possible. The inspectors expressed concern that an EE may not be appropriate if the seal can be repaired. Although, the GL clearly allows licensee's to evaluate the acceptability of fire barriers that are not floor to ceiling, wall to wall these evaluations are intended to be performed in situations where it is not feasible from an operations, design or other special situation to install a rated fire barrier.

In response to this concern, the licensee generated Plant Improvement Request 88-203/00 to review the EEs for penetration seals to determine if repairing the penetration seal is appropriate or to revise the EEs to state why resealing is not feasible. Therefore, this is identified as an Inspector Followup Item 88-31-01, Review of Engineering Evaluations for Fire Barriers.

3. Exit Interview

The inspection scope and results were summarized on December 16, 1988, with those persons indicated in paragraph 1. The inspectors described the areas inspected and discussed in detail the inspection results listed above. Proprietary information is not contained in this report. Dissenting comments were not received from the licensee.

Item NumberDescription and References

50-261/88-31-01

IFI, Review of Engineering Evaluations
for Fire Barriers