

Public Service  
Electric and Gas  
Company

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Vice President - Nuclear Engineering

DEC 28 1990

NLR-N90230

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U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Gentlemen:

SCHEDULE FOR COMPLETION OF  
FIRE PROTECTION FEATURES MODIFICATIONS  
SALEM GENERATING STATION  
UNIT NOS. 1 AND 2  
FACILITY OPERATING LICENSE NOS. DPR-70 AND DPR-75  
DOCKET NOS. 50-272 AND 50-311

In accordance with our commitment to NRC Region I on November 16, 1990, Public Service Electric and Gas Company (PSE&G) hereby forwards a schedule for completion of fire protection features to be installed at Salem Generating Station and the proposed resolution of the denied exemption request.

The schedule reflects an update of items remaining from the schedule previously presented to Region I in October, 1989 and November, 1990. Attachment 1 is a discussion of the remaining items and schedule and Attachment 2 is a discussion of PSE&G's proposed resolution to the previously denied exemption request.

Should you have any questions, please feel free to contact us.

Sincerely,

*T. M. Crimmins*  
ATB

Attachments

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Licensing Project Manager

Mr. T. Johnson  
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Mr. T. Martin, Administrator  
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Mr. Kent Tosch, Chief  
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## ATTACHMENT 1

NLR-N90230

The purpose of this attachment is to discuss the background, status, and schedule associated with certain elements of the fire protection program for Salem Generating Station, Unit Nos. 1 and 2. These items arose as part of the requests for exemption filed by PSE&G regarding compliance with 10CFR50.48 and Appendix R, as supplemented and interpreted by various subsequent generic letters and staff positions. Public Service Electric and Gas recognizes five remaining activities to be completed to maintain compliance with Salem Unit 1 and 2 Fire Protection requirements. All of these activities are detailed in PSE&G's exemption request of July 15, 1988 and accepted through NRC SERs dated July 20, 1989 and November 12, 1990. Schedule requirements of 10CFR50.48 apply to Nuclear Power Plants licensed to operate prior to January 1, 1979; Salem Unit 1 was licensed in April 1977 and Unit 2 was licensed in April 1980. Hence, the requirements of 10CFR50.48(d)(i), (ii), and (iii) would only be applicable to Unit 1. Unit 2's Appendix R requirements are imposed through License Conditions issued on May 20, 1981.

Of the five activities to be completed on both units, PSE&G is in compliance with the appropriate requirements as follows;

### 1. FIRE DAMPERS

PSE&G, based on Appendix R and exemptions issued in 1982, has installed fire dampers originally rated for 1 1/2 hours. Later correspondence through Generic Letter 83-33 imposed new requirements on PSE&G to include cable as in-situ combustible material. This, taken with modifications performed since then, increased accountable combustibile material in some areas of the plant to fire loadings in excess of 1 1/2 hour allowables.

In addition, it has been noted and reported through various Licensee Event Reports that some dampers are not installed in approved configurations. These dampers are considered inoperable.

All of these situations were discussed in detail in PSE&G's exemption request of July 15, 1988, and recognized as open items in the NRC SER dated July 20, 1989. PSE&G believes that it met the requirements of 10CFR50.48 and License Conditions when the initial rule and conditions were set. The outstanding issues to be resolved are later issues for which 10CFR50.48 schedule requirements are not appropriate.

It should be noted that in accordance with the schedule provided to Region I in October 1989, PSE&G is in the process of performing fire tests and validation on installed damper configurations. The initial results suggest that regualification of dampers may not be possible, therefore, PSE&G is now considering incorporating fire damper modifications into the station ventilation system modification project now in progress. A revised schedule for that project is being developed and will be provided in future correspondence.

## 2. FIRE BARRIER PENETRATION SEALS

As with fire dampers, PSE&G met the original requirements of 10CFR50.48 and License Conditions as appropriate.

Since that time, based on Generic Letter 86-10, Information Notice 88-04, and Inspection Report 311/87-29, PSE&G began a program to evaluate the adequacy of existing penetration seals and repair, replace or upgrade as necessary. PSE&G provided information to NRC concerning indeterminate penetration seals in our exemption request of July 15, 1988. This was formally recognized as an open item by NRC through SER dated July 20, 1989.

Penetration seals' operability is required by station Technical Specifications. The action statement requirements of the Technical Specifications are being met and the NRC receives a monthly status report of deficient seals.

PSE&G has submitted scheduled completion dates for the penetration seal project through correspondence dated April 25, 1990 (NLR-N90079). The latest anticipated completion date is now September 1991 for installations, and January 1992 for documentation closeout. The additional time reflects increases in scope, scheduling times for ALARA jobs, and outages.

## 3. ONE HOUR FIRE RATED BARRIERS FOR CABLE

One hour fire rated barriers for redundant cables are required to be installed to provide compliance with approved exemptions. It is PSE&G's position that the schedule requirements of 10CFR50.48(d)(i)(ii)(iii) are only applicable to Unit 1. Unit 2 schedule requirements are driven by License Condition 2c(10)(a). Modifications required by exemption SER dated July 20, 1989 must be complete by the end of the 1991 refueling outage for Unit 1. This outage is presently scheduled to begin in February and end in April.

It is not expected that all barriers will be completed by then. This was indicated in the schedule PSE&G provided Region I in October 1989. That schedule provided a July 1992 completion date for both units.

In light of the needed time to complete this extensive project, PSE&G will apply to NRC for a scheduler exemption from the requirements of 10CFR50.48.

#### 4. CO<sub>2</sub> AUTOMATION

As mentioned previously, schedule requirements of 10CFR50.48 are considered to be applicable to only Unit 1. Based on the exemption approval date of July 20, 1989, the automation of the CO<sub>2</sub> system in the subject areas is required to be complete during the Unit 1 1991 refueling outage. The systems' modifications are in progress and are scheduled to be complete during the upcoming outage scheduled to end in April 1991, Unit 2 will also be completed during that time. This is in compliance with the Rule and License Condition.

#### PANEL 335 FIRE SUPPRESSION SYSTEM

The Panel 335 fire suppression systems' schedule is initiated by two SERs dated July 20, 1989 and November 12, 1990.

The modification packages are complete and scheduled for installation. Unit 1 will be complete in the next refueling outage scheduled for completion in April 1991, and Unit 2's outage is presently scheduled for completion in February 1992. This schedule is in accordance with 10CFR50.48(d)(i)(ii)(iii) and License Conditions.

#### INTERIM COMPENSATORY ACTIONS

To assure continuing plant safety, PSE&G has provided compensatory actions for plant areas affected by these ongoing activities. These compensatory actions, including appropriate fire watches, will remain in effect until the elements of the projects are complete.

## ATTACHMENT 2

### PROPOSED RESOLUTION OF DENIED EXEMPTION FOR UPPER ELECTRICAL PENETRATION AREA AND EMERGENCY CONTROL AIR AVAILABILITY

#### BACKGROUND

Public Service Electric and Gas Company requested a series of exemptions to 10CFR50; Appendix R on July 15, 1988. These exemption requests resulted in approval of all items except one through NRC SERs dated July 20, 1989 and November 12, 1990.

The disapproved exemption was denied based on the Staff's concern that emergency control air may not be available to achieve safe shutdown if fire were to occur in the upper electrical penetration area. The SER contended that Technical Specifications would need to be revised to assure that control air was available from the opposite unit's emergency control air compressor to be able to provide the exemption approval. This requirement was based on the requirements of Generic Letters 81-12 and 88-12.

#### DISCUSSION

Since that time, PSE&G discussed the issue with the NRC in February 1990 and agreed to draft and request proposed Technical Specifications for the opposite unit's air compressor to obtain the needed exemption approval. A submittal date in the last quarter of 1990 was anticipated.

PSE&G has re-reviewed this issue extensively. From these studies a number of issues have arisen, including; the operational complexity of having tech specs on another unit's equipment; a relationship to a similar concern with Station Blackout coping ability that could not be solved with a tech spec; and the actual effectiveness of a tech spec to achieve the NRC's desired objectives.

#### RESOLUTION

A re-review of the exemption request and denial indicates that PSE&G may have presented the exemption request in a manner which was subject to interpretation. This resulted in a misunderstanding of the emergency control air system design.

PSE&G believes that considering the additional information to be included in a request for reconsideration of this exemption, adequate assurance will be provided that control air remains available within the requirements of Appendix R, III.G.2.