

INSPECTION READINESS OF
OPERATING NUCLEAR REACTORS
FOR FIRE PROTECTION SAFE SHUTDOWN

December 31, 1983

H. J. THOMAS AND E. A. MacDOUGALL

ENGINEERING ANALYSIS AND HUMAN FACTORS GROUP
DEPARTMENT OF NUCLEAR ENERGY
BROOKHAVEN NATIONAL LABORATORY
UPTON, NY 11973

8402140442 840131
PDR TOPRP EXIBNL
B PDR

SUMMARY

This report updates the BNL report of May 31, 1983 "Ranking Safe Shutdown Readiness for Reactor Safe Shutdown Inspections." During fiscal year 1983, five of the sixty-six pre-1979 operating plants were inspected. The status of the remaining sixty-one plants is reported herein.

In order to determine the inspection readiness of the pre-1979 operating reactors in accordance with the scheduler requirements of Appendix R of 10 CFR 50.48, the following information was reviewed:

- Status of modifications as noted in fire protection documentation.
- Status of the exemption requests for fire protection and alternative safe shutdown items.
- Dates that NRR Division of Licensing issued Final Safety Evaluation Report (SER).
- Status of exemption request denial appeals made by licensees.
- Correspondence from the licensees.

The status of this report is as of December 1, 1983 when BNL visited Bethesda documentation room and talked with eleven Project Managers regarding the schedules of their respective plants. Subsequent telephone conversations were made well into December 1983 and are documented on the individual plant sheets in the body of this report. Information which was reviewed subsequent to December 1, 1983 which impacted on the schedule, was included.

To further augment this information, the Project Managers of the plants were contacted by phone and/or in person. The applicable information obtained from them appears in the body of this report (see Contents, page v.)

BNL found that twenty plants (fifteen site visits) are in the "exemption request denied" status. In each of these cases, no modification completion date can be established at this time since the licensee has generally been given the following options:

- Six weeks to appeal.
- Sixty days to file for an alternative plan which requires an exemptions report.
- Six months to make modifications which meet the requirements of Section III.G.2 or to submit descriptions of the modifications to meet the requirements of alternative shutdown.

The plants that BNL found in this "exemption request denied" status are:

<u>REGION I</u>	<u>REGION II</u>	<u>REGION III</u>	<u>REGION V</u>
Haddam Neck	Brunswick 1/2	Monticello	Rancho Seco
Indian Point 2	Hatch 1/2	Point Beach 1/2	
Indian Point 3	Robinson 2		
Millstone 1	St. Lucie 1		
Millstone 2	Turkey Point 3/4		
Oyster Creek			
Peach Bottom 2/3			

Note: Millstone 1 presently scheduled for inspection Dec. 1984; Rancho Seco, Sept. 1984.

Of the forty-one plants (thirty site visits) remaining, eight plants (seven site visits) do not as yet have a final Appendix R SER issued by the NRR Division of Licensing. These plants are as follows:

<u>REGION I</u>	<u>REGION III</u>	<u>REGION IV</u>
Ginna*	LaCrosse	Arkansas 2*
Three Mile Is. 1	Quad Cities 1/2	Cooper
Yankee Rowe		

No inspection readiness dates can be established for the twenty-eight plants (twenty-two site visits) that fall in the above two categories.

Inspection readiness dates have been determined for the remaining thirty-three plants (twenty-three site visits). These are as follows:

<u>REGION I</u>			
<u>PLANT NAME</u>	<u>INSPECTION READINESS DATE</u>	<u>INSPECTION DATE SCHEDULED</u>	<u>REMARKS</u>
Beaver Valley 1	July '85	January '85	Now "dedicated" See Pg. 2-F
Calvert Cliffs 1/2	February '84	March '84	Unit 2, Sept. '84
Fitzpatrick	September '84		
Maine Yankee	June '84	June '84	March '84 RFO
Nine Mile Pt 1			End of next RFO
Pilgrim 1	March '86		End of RFO #7
Salem 1	Unit 1-Aug. '84	January '84	

*Existing SER is not final SER

REGION II

<u>PLANT NAME</u>	<u>INSPECTION READINESS DATE</u>	<u>INSPECTION DATE SCHEDULED</u>	<u>REMARKS</u>
Brown's Ferry 1/2/3	January '85		Unit 1-Oct. '84 RFO, Units 2&3 later
Crystal River 3	June '85	April '85	RFO March '85
Farley 1	July '84		Sched. Ex. Req. pending
North Anna 1	January '85	June '84	
Oconee 1/2/3	September '85	April '84	Dedicated plants
Surry 1/2	November '83	September '84	Sched. Ex. Re- quests to Febru- ary '85

REGION III

<u>PLANT NAME</u>	<u>INSPECTION READINESS DATE</u>	<u>INSPECTION DATE SCHEDULED</u>	<u>REMARKS</u>
Big Rock Pt	August '84		
Cook 1/2	November '84		*End of RFO #5
Dresden 2/3			New submittal is due June '84
Duane Arnold	March '85		End of RFO #8 De- cember '84
Kewaunee	August '84		Schedular Ex- emption Requests to '87 RFO
Palisades			End of RFO '85-'86
Prairie Island	February '84		Exemptions Rev. 8. SEP pending
Zion 1/2		June '84	*New submittal coming; probable inspection delay

REGION IV

<u>PLANT NAME</u>	<u>INSPECTION READINESS DATE</u>	<u>INSPECTION DATE SCHEDULED</u>	<u>REMARKS</u>
Arkansas 1	January '85		Schedular Ex-emption Requests are pending

REGION V

<u>PLANT NAME</u>	<u>INSPECTION READINESS DATE</u>	<u>INSPECTION DATE SCHEDULED</u>	<u>REMARKS</u>
San Onofre	*		*End of RFO chat starts after next RFO (which starts 4/84)

CONCLUSIONS

As of December 1, 1983, 21 plants (16 site visits) are in the "exemption request denied" status; 7 plants (6 site visits) are in the "no final SER" status. For these plants no inspection readiness date can be established at this time.

The balance of the pre-1979 operating plants (33 plants, 23 site visits) do have identifiable inspection readiness dates. These dates, along with pertinent schedular information, are included in this report.

RECOMMENDATIONS

Knowledge of the current status of fire protection modifications and exemption requests is necessary if effective inspection readiness dates are to be established. Therefore, BNL recommends that an updated report like this be made available to the NRC on an as-needed basis.

CONTENTS

SUMMARY	i
REGION I PLANTS:	
Beaver Valley 1	1
Calvert Cliffs 1/2	3
Fitzpatrick	5
Ginna	7
Haddam Neck	9
Indian Point 2	11
Indian Point 3	13
Maine Yankee	17
Millstone 1	19
Millstone 2	21
Nine Mile Point 1	23
Oyster Creek 1	26
Peach Bottom 2/3	28
Pilgrim 1	31
Salem 1	33
Three Mile Island 1	35
Vermont Yankee 1	38
Yankee Rowe 1	39
REGION II PLANTS:	
Browns Ferry 1/2/3	40
Brunswick 1/2	42
Crystal River 3	44
Farley 1	46
Hatch 1/2	48
North Anna 1	50
Oconee 1/2/3	52
Robinson 2	54
St. Lucie 1	56
Surry Units 1/2	58
Turkey Point 3/4	60
REGION III PLANTS:	
Big Rock Point	62
Cook 1/2	64
Davis Besse	67
Dresden 2/3	68
Duane Arnold	71
Kewaunee	73
LaCrosse	75
Monticello	77

CONTENTS (Cont'd.)

REGION III PLANTS (Cont'd.)

Palisades	80
Point Beach 1/2	82
Prairie Island 1/2	85
Quad Cities 1/2	87
Zion 1/2	90

REGION IV PLANTS:

Arkansas 1	92
Arkansas 2	95
Cooper	97
Ft. Calhoun 1	100
Ft. St. Vrain	102

REGION V PLANTS

Rancho Seco	104
San Onofre 1	106
Trojan	108

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION I

DATE April 26, 1983

REVISION DATE December 31, 1983

1. PLANT Beaver Valley 1 TYPE PWR PWR RATING 856 MW MFG WX
2. LOCATION Pittsburgh, PA COMMERCIAL OPERATING DATE 1976
3. LICENSEE Duquesne Light Co.
4. DOCKET NO. 50-334 5. APPENDIX R - SUBMITTAL DATE: 10/22/82, 12/10/82 4/24/81
6. SAFETY EVALUATION REPORT (SER) DATE 1/5/83
OR EXEMPTION REQUEST DENIAL DATE *
- *All exemption requests were granted, see letter dated March 14, 1983.
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS July 1985 (revised date)
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room, cable spreading room, and all other areas.
 - A. Duquesne Light requested exemptions for the control room (CR-1), reactor containment (RC-1), blender room (primary auxiliary building elevation 722), pipe tunnel, elevation 722 (PT-1), cable tunnel (CV-3), primary auxiliary building, elevation 722 (PA-1G) and other area.
 - B. Type of modifications included the installation of a backup indication panel, key lock transfer switches, three hour fire barriers.
 - C. SER issued on January 5, 1983 which concluded that Beaver Valley Unit 1 complies with the requirements of Appendix R, III.G.3 and III.L.
 - D. On March 14, 1983 a SER was issued which granted Beaver Valley Unit 1 all of the previously requested exemptions.
 - E. Letter dated April 18, 1983. Licensee indicated their intention to install encapsulated Control Power Transformers (CPT) to replace the existing CPT's in the 480 volt emergency motor control centers during the third refueling outage, which was tentatively scheduled for June, 1983.

Duquesne Light stated that the installation date of the Backup Indicating Panel (BIP), which was defined as equipment required to provide "dedicated shutdown capability" per 10CFR 50.43, is 30 months from NRC approval date (i.e. July, 1985).

- F. Completion date for the modifications is now July 1985 based on 50.48 (c)4, since the NRC officially concurred that the modifications were "dedicated".
- G. Inspection Scheduled for January, 1985.
- H. 11/7/83 - P.M. indicated that the modification completion date of July, 1985 was accepted by the NRC on June 20, 1983.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION I

DATE April 26, 1983

REVISION DATE December 31, 1983

1. PLANT Calvert Cliffs 1/2 TYPE TWIN PWR PWR RATING 845-MW MFG C-E
2. LOCATION Annapolis, MD COMMERCIAL OPERATING DATE Unit 1 - 9/30/81
Unit 2 - 4/29/82
3. LICENSEE Baltimore Gas and Electric Co.
4. DOCKET NO. 50-317 5. APPENDIX R - SUBMITTAL DATE: Unit 1 - 9/30/81
50-318 Unit 2 - 1/29/82
6. SAFETY EVALUATION REPORT (SER) DATE 9/27/82
OR EXEMPTION REQUEST DENIAL DATE N.A.
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS Unit 2-9/84, Unit 1-2/84
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room, two
cable spreading rooms, six cable chases, and other plant areas where
"redundant cabling/equipment required for safe shutdown cannot be
separated by fire barriers of appropriate ratings."
 - A. Type of modifications include fire protection requirements, install new auxiliary shutdown panel, isolation switches, disconnect switches, relocation of auxiliary relays, coordination fuse protection.
 - B. Exemptions were requested for fire protection items such as fire doors and for scheduler relief for the installation of emergency lighting.
 - C. Pursuant to the issuance of the SER dated September 27, 1982, the licensee was to provide a schedule for the installation of the source range flux monitoring instrumentation.
 - D. An exemption, from the requirement to provide a fixed suppression capability in the control room and intake structures, was granted by NRC on April 20, 1983.

- E. The modifications should be completed by February 1984 for Unit 1 and September 1984 for Unit 2, based on 50.48(c)(4).
- F. Inspection scheduled for March 1984.
- G. On 10/19/83, P.M. indicated that there were no outstanding exemption requests.
- On 10/24/83, P.M. indicated that the Unit 1 modifications are complete, and that Unit 2 modifications may be complete in May 1984.
- H. On 11/7/83 P.M. reaffirmed status in Section G, and was checking on the availability of procedures.
- I. On 12/1/83 P.M. indicated that:

- Procedures will be developed upon completion of the modifications
- Some D.G. modifications may not be complete at the time of the inspection.
- Exemption requests for fire doors & oil collection have been resolved.
- P.M. requests one month's notice of date for inspection.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION i

DATE April 26, 1983/May 13, 1983

REVISION DATE December 31, 1983

1. PLANT Fitzpatrick TYPE BWR PWR RATING 820 MW MFG C-E
2. LOCATION Oswego, NY COMMERCIAL OPERATING DATE 7/28/75
3. LICENSEE Power Authority of the State of New York
4. DOCKET NO. 50-333 5. APPENDIX R - SUBMITTAL DATE: *
*2/26/82, 7/13/82, 11/22/82, 3/1/83.
6. SAFETY EVALUATION REPORT (SER) DATE April 26, 1983 (revised date)
OR EXEMPTION REQUEST DENIAL DATE _____
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS End of RFO after 10/26/83
(revised)
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room, cable
spreading room and relay room.
 - A. The licensee has submitted nine exemption requests from fire protection requirements of Appendix R. Three additional exemption requests were made for electrical concerns.
 - B. On December 14, 1982, the Division of Systems Integration Recommended the granting of two of the electrical exemption requests and determined that the third was not necessary.
 - C. A draft SER was sent to PASNY on February 2, 1983 which granted the fire protection exemption requests in five areas and denied those in four areas. The licensee has been given an opportunity to respond.
 - D. NRC internal memorandum from Tom Wambach dated March, 24 1983, stated: "Resolution apparently reached; licensee's submittal should have been made April 15, 1983; CMEB SER should have been issued May 10, 1983."

- E. Partial SER issued April 26, 1983 allows pulling of fuses to deactivate HPCI when using LPCI.
- F. SER dated April 26, 1983 stated that the NRC concluded that the proposed modifications and alternative safe shutdown capability meet the requirements of Sections III.G.3 and III.L of Appendix R to 10 CFR Part 50 within the control room, cable spreading room, and relay room. The required schedule for implementation is as given in paragraph 50.48(c)(4) of 10 CFR Part 50.
- G. The CMEB SER was issued in May 1983 granting five exemption requests, and denying four. The licensee had since submitted alternates.
- H. Call from P.M. on July 1, 1983, in which he stated that 2 exemption requests were granted: one for control room and one for the torus room.
- I. NRC internal memorandum dated September 29, 1983 grants nine (9) exemption requests relating to fire protection. Four (4) exemption requests which were denied in May 1983 now granted.
- J. The modification completion date based on 10 CFR 50.48(C)4 is end of next RFO after 10/26/83.
- K. On 11/7/83 - P.M. indicated that all exemption requests are approved. Licensee may request schedular exemptions.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION I DATE April 26, 1983
REVISION DATE December 31, 1983

1. PLANT Ginna TYPE PWR PWR RATING 490 MW MFG WX

2. LOCATION Rochester, NY COMMERCIAL OPERATING DATE 1970

3. LICENSEE Rochester Gas and Electric Corp.

4. DOCKET NO. 50-244 5. APPENDIX R - SUBMITTAL DATE: 3/19/81

6. SAFETY EVALUATION REPORT (SER) DATE None
OR EXEMPTION REQUEST DENIAL DATE N.A.

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room, cable tunnel, air handling rooms, battery rooms, diesel generator, cable vaults, and relay room.

A. On December 18, 1981, the Division of Systems Integration initiated an SER which included a number of open items such as:

1. Isolation between control room and motor control center or switchgear.
2. Description of the proposed modifications to the dedicated shutdown system in zones CVBE and CVBW was not provided.
3. The heat removal capabilities of alternate "cold shutdown" methods or the design qualifications of the associated components were not discussed.
4. The ability to replace a component cooling water pump in zone ABOS within the required time constraint was not demonstrated.
5. An evaluation regarding interactions between non-safety related associated circuits and safe shutdown circuits/components was not provided.

6. It was also stated that the licensee had requested an exemption from regulations which states that cold shutdown must be achieved within 72 hr. NRC could not approve the request because the licensee did not provide sufficient information which demonstrates the adequacy of the alternative shutdown methods to justify an exemption from the 72-hr requirement.
- B. No modification date can be established until final SER is issued by the Division of Licensing.
- C. On 11/8/83, P.M. indicated that an SER was issued as of April, 1983. New discussions were in progress, as of October 22, 1983, relative to changes in the proposal for alternative shutdown. We do not find evidence of SER from Div. of Licensing.
- D. On 12/7/83, P.M. expected that scheduler exemption requests and new proposal for alternative shutdown will be made by the end of December, 1983.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION I

DATE April 27, 1983/May 13, 1983

REVISION DATE December 31, 1983

1. PLANT Haddam Neck TYPE PWR PWR RATING 582 MW MFG WX
2. LOCATION East Haddam COMMERCIAL OPERATING DATE 1/68
3. LICENSEE Connecticut Yankee Atomic
4. DOCKET NO. 50-213 5. APPENDIX R - SUBMITTAL DATE: 3/1/82
6. SAFETY EVALUATION REPORT (SER) DATE None
OR EXEMPTION REQUEST DENIAL DATE 8/11/82, 11/3/82
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room,
switchgear room, cable spreading area, primary auxiliary building
cable vault, containment...
 - A. Connecticut Yankee Atomic Appendix R submittal of March 1, 1982 involved analysis of 26 fire zones, of these, five areas were considered to be in compliance. In addition to these, six areas were to be modified by relocation of cabling to conform to Appendix R. For the remaining 15 fire areas, exemption requests were made for various reasons.
 - B. NRC issued an SER on August 11, 1982 in which, one exemption request was granted, five were denied and nine were awaiting information.
 - C. By letter dated July 16, 1982, the licensee submitted additional information on the original exemption requests. The licensee made several revised modifications which resulted in Appendix R compliance for eight of 14 of the original 15 exemption requests. These eight exemption requests were withdrawn and one new exemption request was added to make a total of seven outstanding requests.
 - D. By SER dated November 3, 1982, four exemption requests were granted and three were denied. The proposals for the service building control room (S-1), service building cable spreading area (S-17), and screen-well pump house pump motor room (P1 and P2) were denied.

- E. The NRC internal memorandum from Tom Wamback dated March 24, 1983 states: "final information should be received from the licensee March 25, 1983; CMEB and ASB SERs should be issued May 6, 1983."
 - F. P.M. indicated that submittal was being reviewed by ASB (May 1983).
 - G. Licensee document dated May 10, 1983 records agreements reached during conference call on May 5, 1983 between NRC and Connecticut Yankee Atomic Power Company (CYAPCO) staff:
 - CYAPCO proposed to provide an instrument panel remote from the control room.
 - Steam generator pressure (one channel per steam generator) and reactor coolant system cold leg temperature indication, pressurizer level, plug in connectors for source range in core thermocouples and reactor coolant temperature indications will be available on the instrument panel.
- Procedures which are being developed for safe shutdown following a control room fire will include provisions which direct the operators to verify water levels for the primary water storage tank and the refueling water storage tank.
- H. The modification completion date cannot be established since this plant has had exemption requests denied and no final SER from division of licensing has been issued.
 - I. Internal memo from CMEB, dated May 16, 1983, concerning fire protection PRA studies for Haddam Neck - Millstone 1 and Millstone 2 stated that: "The Probabilistic Risk Assessments (PRAs) submitted in March 1982 and December 1982 have been reviewed by CMEB and BNL; the PRAs are current with the modifications proposed by the Licensee. Therefore, we plan no further review of the PRA's submitted in 1983." These reports did not consider alternative shutdown capability for the control room or modifications which were proposed for several critical areas.
 - J. Licensee letter to DL dated November 4, 1983 provided additional information to support exemption requests for a control room fire.
 - K. On November 22, 1983 P.M. indicated that there was no change and that a meeting was to be held between NRC staff on November 28, 1983.
 - L. On 12/7/83 P.M. indicated that there are unresolved questions. No SER.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION I

DATE April 27, 1983/May 13, 1983

REVISION DATE December 31, 1983

1. PLANT Indian Point 2 TYPE PWR PWR RATING 873 MW MFG WX

2. LOCATION Buchanan, NY COMMERCIAL OPERATING DATE 7/71

3. LICENSEE Consolidated Edison Co.

4. DOCKET NO. 50-247 5. APPENDIX R - SUBMITTAL DATE: 3/19/81, 5/19/81
Sup. 1/83

6. SAFETY EVALUATION REPORT (SER) DATE 8/22/83 not final (revised)
OR EXEMPTION REQUEST DENIAL DATE 5/16/83 Internal NRC

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Zone 1A - electrical
piping tunnel, Zone 2 - containment spray pump room, Zone 2A -
primary water makeup pump room, Zone 5 - charging pump room, Zone 6A -
waste storage and drum handling area, Zone 10 - diesel generator room,
Zone 11 - cable spreading room, Zone 13A - valve room, Zone 14 -
switch gear room, Zone 15 - central control room, Zone 18A - valve
room and corridor, Zone 32A - electrical tunnel, Zone 74A - electrical
penetration area.

A. The licensee's original submittal was incomplete and consequently
additional information was requested by the NRC. The concerns were
repairs proposed during cold shutdown, description of systems to be
used for post fire shutdown, adequacy of instrumentation.

B. On July 1, 1982, a list of licensee action items needed to resolve
Appendix R concerns was agreed upon during a meeting with the
licensee.

C. An SER was issued on March 9, 1983 which concluded that the Indian
Point 2 Nuclear Plant was in accordance with Appendix R, Section
III.G.3 and III.L requirements. The licensee has committed to provide

hot leg temperature, cold leg temperature, and source range flux monitor. An apparent open item relates to an exemption request from the requirements of Section III.G.2 of Appendix R. This exemption request related to the manhole which contains electrical power for service water pumps 23 and 24. The licensee proposes to provide a fire barrier material that has been tested to demonstrate protection of better than 55 minutes.

- D. NRC internal memorandum from Tom Wambach dated March 24, 1983 which stated that: "the licensee made submittal January 1983; SER to be issued September 1983."
- E. NRC internal memorandum issued on May 16, 1983 in which 6 exemption requests were granted and 10 were denied.

Exemption requests were denied for the following areas:

- component cooling pump room (zone 1).
- auxiliary boiler feed pump room (zone 23).
- piping and electrical tunnel, piping penetration area (zone 1A).
- charging pump room (zone 5).
- corridor (zone 7A).
- valve room and stairwell (zone 13A).
- control room (zone 15).
- valve room and corridor (zones 18A and 3A).
- electrical penetration area (zone 74A).
- several plant areas.

Exemption requests were granted for the following areas:

- containment spray pump room and primary water makeup pump room (fire zones 2/2A).
- waste storage and drumming station (zone 6A).
- switchgear room (zone 14).
- screen well area (zone 22).
- yard manhole No. 21.
- reactor coolant pump - oil collection tanks.

- F. Licensee letter dated July 29, 1983 disagreed with some aspects of the draft SER of June 29, 1983.
- G. NRC issued SER dated August 22, 1983 which was based on January 10, 1983 submittal. A subsequent Appendix R submittal dated July 12, 1983 was under review and was not covered by this SER.
- H. No modification date can be established until final SER is issued by the Division of Licensing and exemption request denials are resolved.
- I. On 12/7/83, P.M. indicated that no decision had been made on the July 13, 1983 Appendix R submittal.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 4

REGION I

DATE April 27, 1983

REVISION DATE December 31, 1983

1. PLANT Indian Point 3 TYPE PWR PWR RATING 956 MW MFG WX

2. LOCATION Buchanan, NY COMMERCIAL OPERATING DATE 1976

3. LICENSEE Power Authority State of New York (PASNY)

4. DOCKET NO. 50-286 5. APPENDIX R - SUBMITTAL DATE: 10/29/82, 11/22/82 ^{7/1/82}

6. SAFETY EVALUATION REPORT (SER) DATE No Final SER
OR EXEMPTION REQUEST DENIAL DATE 7/22/83

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Switchgear room,
tunnels, and the cable spreading room.

- A. Type of modifications proposed in the original Appendix R submittal of July 1, 1983 were the separation of equipment and cables, fire detectors, and suppression systems, and passive protection with fire barriers, or alternative shutdown method which was unidentified. This submittal was considered incomplete and a resubmittal was required.
- B. A site visit was held with the licensee on July 13, 1982 in order to develop staff recommendations for an interim course of action, since it was recognized that time would be required to allow the licensee to respond to staff concerns.
- C. The plant is divided into 161 fire areas and the licensee found that 19 fire areas did not comply with Section III.G.2. A number of meetings were held with the licensee, namely September 24, 1982 and December 14, 1982. As a result of these meetings, it was determined

that in the interim that three fixes were required:

1. Alternate power supplies to one charging pump, one component cooling water pump, and one backup service water pump
 2. Power in the event of loss of off-site power by use of either the Indian Point 2 or Buchanan Substation Gas turbine, and
 3. Safe shutdown and gas turbine startup procedures.
- D. The licensee was notified that an alternative permanent power supply must be provided in addition to the presently installed standby power supply for the following components:
1. Components:
 - a. One charging pump
 - b. One Component cooling water pump
 - c. One backup service water pump, and
 - d. The ac motor, valve operators, etc., necessary for the operation of one train of the systems associated with the three pumps itemized above.
 2. In addition to off-site power supplies, provide power to Indian Point 3 either from Indian Point 2 gas turbine or the Buchanan Substation gas turbine.
 3. Provide procedures for:
 - a. Start-up, loading, and on-line operation of the gas turbines used to comply with Item C.2.
 - b. Systems initiation and operation of components used to comply with Item C.
- E. The licensee was committed to a submittal by January 21, 1983; the CMEB internal SER was due September 9, 1983.
- F. On April 21, 1983, the NRC notified PASNY that the long-term Appendix R compliance was found acceptable except for three items:
1. Alternative shutdown power supply
 2. Process monitoring, and
 3. Relief valve operator action.

A response was requested within 30 days.

- G. Letter dated June 3, 1983. Licensee notifies NRC that at least two of three charging pumps are required to be operational¹ by the present technical specifications.

It was also stated that based on the Indian Point probabilistic safety study that the unavailability of offsite power at the Buchanan substation is 3.88×10^{-8} due to hardware failure.

Procedures were being developed addressing the operation of the alternate electrical feed system.

- H. NRC letter was sent to Power Authority of the State of New York on 7/22/83, which notified them that 8 exemption requests were granted, 16 were denied and 2 were no longer needed.

Exemption requests were granted for the following areas:

- Fire Area 73A (electrical penetration area (upper)).
- Fire Area 7A (upper electrical cable tunnel).
- Fire Area 60A (lower electrical cable tunnel).
- Intervening combustible in the cable tunnels.
- Fire Area 36A (sump and pump room).
- Fire Area 72A (outer annulus).
- Fire Area 76A (outer annulus).
- Fire Area 78A (recirculation pumps and RHR heat exchanging areas).

The denial of exemption requests was recommended for the following areas:

- Fire Area 3A (piping tunnel).
- Fire Area 14A (corridor).
- Fire Area 18A (waste gas compressor room).
- Fire Area 19A (waste evaporator room).
- Fire Area 20A (sampling room).
- Fire Area 21A (waste storage and drumming area).
- Fire Area 33A-N (deluge valve room - north).
- Fire Area 33A-S (deluge valve room - south).
- Fire Area 58A (piping tunnel).
- Fire Area 63A (waste condensate tank room).
- Fire Area 69A (piping and valve room).
- Fire Area 17A NE2 (corridor).
- Fire Area 17A-S1 (corridor).
- Fire Area 17A-SE1 (corridor).
- Fire Area 17A-W3 (corridor).
- Fire Area 17A-W5 (corridor).

The exemption requests for the following areas are no longer needed:

- cable spreading room (fire area 11).
 - Boron injection tank area (fire area 622).
- I. The modification completion date cannot be established since this plant has had exemption requests denied.
- J. On 11/7/83 the P.M. indicated that 8 items granted on July 22, 1983 will be sent to Licensee in the form of a SER and the tolling provisions of 10 CFR 50.48 will be discontinued.
- The P.M. also indicated that the Licensee had agreed to provide the additional information relative to the alternate power source by the end of the month. A SER may be available by the end of December, 1983.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION I

DATE April 28, 1983/May 13, 1983
REVISION DATE December 31, 1983

1. PLANT Maine Yankee TYPE PWR PWR RATING 790 MFG G-E
2. LOCATION Wiscasset, ME COMMERCIAL OPERATING DATE 1972
3. LICENSEE Maine Yankee Atomic Power
4. DOCKET NO. 50-309 5. APPENDIX R - SUBMITTAL DATE: 12/22/82
11/24/82
6. SAFETY EVALUATION REPORT (SER) DATE February 3, 1983 Revision
OR EXEMPTION REQUEST DENIAL DATE _____
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS End of RFO Starting 3/31/84
(about June 1984)
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room, cable
vault, cable tray rooms, switchgear room, turbine building, and the
circulating water pump house.
 - A. An SER was issued to the Licensee on February 3, 1983 which approved the alternative safe shutdown capability for Main Yankee as it pertains to the areas delineated in Item 8 above. At the same time, an exemption request was allowed for cold shutdown to be achieved in a period greater than 72 hours (130 hours approximately) with only on-site power sources, pending steam generator solid analysis.
 - B. On March 15, 1983, the NRC confirmed their knowledge of the installation of block valves at hydrant laterals. The licensee was informed that the three exemption requests from the technical requirements of Section III.G of Appendix R, which included the December 22, 1982 letter, are being evaluated.
 - C. NRC internal memorandum dated March 24, 1983 which stated that the SER should be issued May 1983.

- D. Maine Yankee requested an exemption on 7/1/83 from the Section III.0 of 10CFR 50 for the lubricating oil collection system.
- E. NRC internal memorandum dated September 23, 1983 denied exemption request referred to in Section E above and granted 3 exemption requests for the following areas:
 - 1. Switchgear room (zone 12a).
 - 2. Circulating water pump house (zone 5).
 - 3. Primary auxiliary building (zones 6a, 6b1 and 6b2).
- F. Inspection scheduled for June 1984.
- G. The modification completion date based on 50.48(c)(4) is the end of RFO starting March 1984 (about June 1984).
- H. On November 23, 1983 - P.M. indicated that the only unresolved item was the exemption request for RCP oil collection system. Licensee schedule indicates ASD modifications should be complete after completion of RFO which starts March 31, 1984 and ends mid-May.
- I. 12/1/83 - P.M. reaffirmed status as indicated in paragraph H.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION I

DATE April 28, 1983/May 13, 1983

REVISION DATE December 31, 1983

1. PLANT Millstone 1 TYPE BWR PWR RATING 660 MW MFG GE

2. LOCATION New London, CT COMMERCIAL OPERATING DATE 1970

3. LICENSEE Northeast Nuclear Energy Co.

4. DOCKET NO. 50-245 5. APPENDIX R - SUBMITTAL DATE: 3/82

6. SAFETY EVALUATION REPORT (SER) DATE None
OR EXEMPTION REQUEST DENIAL DATE 1/6/83

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND None

- A. In letter dated March 1, 1982, licensee submitted information to demonstrate that by a combination of compliance with and exemptions from the specific provisions of Appendix R, the objective of assuring safe shutdown capability for Millstone 1 in the event of fire will be met.
- B. On December 22, 1982, the NRC issued an internal memorandum for the purpose of granting two of ten exemption requests and denying eight. These exemption requests were fire protection related. An exemption request was included for the main control room.
- C. A Draft SER was issued to the licensee on January 6, 1983 and they were informed of their right of appeal, etc.
- D. NRC internal memorandum; met to attempt resolution March 18, 1983; submittal of resolution should be April 15, 1983; CMEB SER should be issued May 27, 1983.
- E. Letter to NRC dated April 15, 1983 which acknowledges that North-east-Nuclear was conducting a review of alternate operator actions pursuant to criteria found acceptable to the NRC staff in its review of the Haddam Neck Plant.

The licensee has committed to make modifications similar to those agreed to in the Haddam Neck Plant Review.

- F. Northeast Nuclear on 3/15/83 provided control room fire review supporting exemption request from 10CFR 50, Appendix R. The purpose of the analysis was to demonstrate:
 - 1. Operability to safe shutdown with loss of two adjacent main control board panels or a single fully enclosed auxiliary control board panel or a technically justified evaluation within the MCB of a magnitude smaller than two adjacent sections;
 - 2. Spurious operation of affected equipment can be compensated for using either a systems approach or a loss of adjacent panel section analysis; and
 - 3. Actions taken outside the control room are achievable considering a fire in the control room, time needed to accomplish the function and manpower required.
- G. NRC memo dated May 16, 1983, provided information relative to the current status of the fire protection PRA studies.
- H. Northeast Nuclear - Letter dated July 15, 1983 - proposed technical specification change for carbon dioxide and Halon 1301 fire control system.
- I. The modification completion date cannot be established since this plant has had exemption requests denied and no final SER from division of licensing has been issued.
- J. An inspection of Millstone 1 is scheduled for December, 1984.
- K. On 10/20/83, the P.M. indicated that a meeting was held 2 weeks ago and that there was no resolution of the concern for evacuation of the control room.
- L. 12/1/83 The P.M. indicated that the Appendix R status was dependent on the resolution of the Appendix R negotiations for Haddam Neck.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION I

DATE April 29, 1983/May 13, 1983

REVISION DATE December 31, 1983

1. PLANT Millstone 2 TYPE PWR PWR RATING 828 MW MFG C-E
2. LOCATION New London, CT COMMERCIAL OPERATING DATE 12/75
3. LICENSEE Northeast Nuclear Energy Co.
4. DOCKET NO. 50-336 5. APPENDIX R - SUBMITTAL DATE: 3/1/82
6. SAFETY EVALUATION REPORT (SER) DATE None.
OR EXEMPTION REQUEST DENIAL DATE 12/29/82
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND None proposed.

- A. On December 29, 1982, the NRC issued a memorandum which recommend the denial of six exemptions and granting two. The exemption requests related to fire protection. The areas for which exemptions were granted are the charging pump room (fire area A-19) and the auxiliary feed water pump pit (Fire area T-9).

Exemptions were not recommended for the following fire areas:

1. Closed cooling water pump area (fire area A-1B)
2. Boric acid pumps - spent fuel pool heat exchangers (fire area A-14).
3. Boric acid batch tank - chemical addition tank area (fire area A-24).
4. Cable vault (fire area A-40).
5. Main control room (fire area I-42).
6. In tank building (fire area I-1).

- B. On June 28, 1982, the NRC issued an internal memorandum which stated that the licensee had not proposed an alternative or dedicated shut-down and that ASB had terminated their Appendix R review.
- C. NRC internal memorandum from Tom Wambach dated March 24, 1983 stated that: "met to attempt resolution March 18, 1983; submittal of resolution was due April 15, 1983. CMEB SER was issued May 27, 1983."
- D. Northeast Utilities letter dated April 15, 1983 provided information supporting 10CFR 50 Appendix R Review. Attachment 2 included information Northeast Utilities has submitted to support their exemption requests.

The licensee was conducting a review of alternate operator actions pursuant to criteria found acceptable to the NRC staff in its review of the Haddam Neck Plant.

- E. NRC memo dated May 16, 1983 provides information relative to the current status of the fire protection PRA studies.
- F. Northeast Utilities letter dated May 25, 1983 which provided control room fire analysis for Unit No. 2. Licensee is of the opinion that a fire of such magnitude to require the abandonment of the control room is incredible.

The alternative actions required by the operators in the event of a fire inside the control boards, are listed.

- G. The modification completion date cannot be established since this plant has had exemption requests denied and no final SER from division of licensing has been issued.
- H. On 12/1/83, the P.M. indicated that the Plant was down for repairs. In regards to Appendix R, Haddam Neck is the lead Plant. The SER resolution for Millstone 1 & 2 is dependent on the results of Haddam Neck negotiations.

PLANT STATUS - CFR 50.48 and APPENDIX 3
BREAKDOWN

Page 1 of 3

REGION I

DATE April 29, 1983

REVISION DATE December 31, 1983

1. PLANT Nine Mile Point 1 TYPE BWR PWR RATING 610 MW MFG GE
2. LOCATION Oswego, NY COMMERCIAL OPERATING DATE 1969
3. LICENSEE Niagara Mohawk Power Corporation
4. DOCKET NO. 50-220 5. APPENDIX R - SUBMITTAL DATE: 3/19/81, 6/19/81, 10/1/82, 12/8/82
6. SAFETY EVALUATION REPORT (SER) DATE 3/3/83
OR EXEMPTION REQUEST DENIAL DATE None
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS End of next refueling outage starting April 1984.
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Main control room, auxiliary control (relay) room and cable spreading room.
 - A. Alternative safe shutdown which is required for the control complex utilizes existing plant systems and equipment and two existing electrically independent and isolated remote shutdown panels. Hot shutdown utilizes the emergency condensers, is initiated and maintained in a passive manner without the need for ac power or additional support equipment. Therefore, a diesel generator will not be provided for hot shutdown as a part of the alternate shutdown system.
 - B. The types of modifications which will be made include rewiring, installation of new feeders, isolation switches, fire protection barriers.
 - C. Repairs will be required to reach cold shutdown for the following equipment: diesel generator, control rod drive pump, decay heat removal system. Procedures for the repairs are to be developed by licensee.

- D. On March 21, 1983, five exemption requests were granted by the NRC for the following:
1. Two requests for requirement of three hour fire barriers between the redundant battery board rooms and the redundant battery rooms.
 2. Two requests for the requirement for a three hour barrier, automatic suppression system or an alternate shutdown area independent of reactor building/turbine building boundary and the turbine building area between fire zones T8A and T8B along with common boundary of column line 8.
 3. One exemption request related to the requirements for complete enclosure of the control room with a three hour fire barrier and provision of a fixed fire suppression system.
- E. On March 1, 1983, an SER was issued by DL which indicated that Nine Mile Point 1 met the requirements of III.G.3 and III L. of Appendix R for fire areas within the control complex.
- On March 3, 1983, the SER was issued to the licensee. (revision)
- F. On March 21, 1983, NRC informed Niagara Mohawk that exemption requests from the requirements of Section III.G were granted for the following areas:
- Battery board rooms (fire zones B1A and B1B).
 - Battery rooms (fire zones B2A and B2B).
 - Reactor Building, upper level (fire sub-areas 1&2) including the boundary wall that separates fire sub-areas 1&2 from the fire zones T8A and T8B in the adjacent turbine building.
 - Turbine building, upper level (fire zones T8A and T8B).
 - Control building (fire zone C3).
- G. On May 26, 1983, the licensee clarified previous statements relative to the spurious operation of core spray high point vent valves 40-30 and 40-31 and shutdown cooling isolation valve 38-02.
- H. On May 27, 1983, the licensee notified NRC that the two remote shutdown panels which were stated to be completely independent of each other are no longer independent.
- I. On July 28, 1983, NRC internal memorandum from CMEB requesting additional information which was needed to complete review of fire protection program.

- J. The modifications should be complete by the end of the next refueling outage after October 1983, based on 50.48(c)(4).
- K. On December 12, 1983 P.M. indicated that RFO was still scheduled to start in the spring (March or April, 1984).

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION I

DATE May 2, 1983

REVISION DATE December 31, 1983

1. PLANT Oyster Creek 1 TYPE BWR PWR RATING 620 MW MFG GE

2. LOCATION Toms River, NJ COMMERCIAL OPERATING DATE 1969

3. LICENSEE Jersey Central P&L Company

4. DOCKET NO. 50-219 5. APPENDIX R - SUBMITTAL DATE: 6/30/82
7/7/82

6. SAFETY EVALUATION REPORT (SER) DATE November 18, 1982 (revision)
OR EXEMPTION REQUEST DENIAL DATE 12/17/82

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None

Oyster Creek presently undergoing nine months shutdown ending October 1983.

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room and spreading room.

- A. The licensee requested exemptions from the requirements of Section III.G for seventeen areas. The licensee proposed to either re-route redundant trains or to provide one hour fire related barriers in all seventeen areas. The requests were made by letter on June 30, 1982. No details were provided and it was stated that this information was not available and would not be available until after the next refueling outage, which was scheduled for January 15, 1983.
- B. On December 17, 1982, the NRC issued a letter in which they stated that due to the lack of information, no decision could be rendered and consequently the tolling of the schedules for the areas ended on June 30, 1982.

- C. An SER was issued on November 18, 1982 which concluded that the alternative safe shutdown conceptual design was in accordance with Appendix R, Section III.G.3 and III.L requirements.
- D. All exemption requests were denied - currently in appeal process.
- E. GPU letter dated September 16, 1983 files exemption requests for proposed modification completion date (approximately August, 1987).
- F. The modification completion date cannot be established since this plant has had exemption requests denied by division of licensing.
- G. On 10/20/83, the P.M. indicated that the exemption requests have not been resolved.
- H. On 12/7/83 the P.M. indicated that Licensee was expected to submit information relative to the exemption requests on December 9, 1983. The staff review is to be completed March 15, 1984, based on December 9, 1983 receipt.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 3

REGION I

DATE April 20, 1983

REVISION DATE December 31, 1983

1. PLANT Peach Bottom 2/3 TYPE Twin BWR PWR RATING 1065 MW MFG GE

2. LOCATION Lancaster, PA COMMERCIAL OPERATING DATE Unit 2 - 1973
Unit 3 - 1974

3. LICENSEE Philadelphia Electric Co.

4. DOCKET NO. 50-277, 50-278 5. APPENDIX R - SUBMITTAL DATE: 6/3/82

6. SAFETY EVALUATION REPORT (SER) DATE *, None
OR EXEMPTION REQUEST DENIAL DATE NRC exemption request review - not
complete.

*As of March 21, 1983, NRC informed Philadelphia Electric that the available information was insufficient to enable the conduct of a review.

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Proposed subsequent
to meeting on March 9, 1983.

A. By letter dated June 28, 1982, Philadelphia Electric requested exemptions from the requirements of Section III.G for four areas in Unit 2, four areas in Unit 3, and three areas common to both units.

B. On October 8, 1982, NRC informed the licensee by telephone that insufficient information had been submitted and that a complete review could not be conducted.

- C. On March 9, 1983, NRC staff met with representatives of PE Co. to discuss the licensee's Appendix R exemption requests and the supporting informational needs required by the staff to make a determination on the requests. In the process of the licensee's presentation concerning their proposed design and modifications to meet Appendix R, additional areas requiring new exemption requests were identified and an alternative shutdown capability was proposed for the first time.
- D. The type of modifications which were proposed in the original Appendix R submittal of June 2, 1982 included the rerouting and/or encapsulation of cables, conduit, or trays in approx. 35 fire zones. In addition, the licensee intends to add fuses to logic circuits, change settings on relays and circuit breakers, and add key locks to (4) RHR PUMP circuit breakers.
- E. All exemption requests were denied - are currently in the appeal process.
- F. On April 5, 1983, NRC staff met with representatives of Philadelphia Electric Company. The purpose of the meeting was to discuss the status of Appendix R, where additional work, design and modifications still were required. The licensee was asked to submit within 2 weeks, a summary of its Peach Bottom's Appendix R status highlighting three areas; namely: safe shutdown capability, cable penetration seal qualification and automatic fire detection.
- G. On May 27, 1983, the licensee requested exemptions from providing smoke detectors in the following fire areas:
 - MSIV rooms (areas 21 and 29).
 - Chemical waste tank room (area 65B).
 - Offgas line tunnel (areas 130 and 131).
 - Diesel generator building ventilation supply enclosures (areas 132, 133, 134, 135).

The licensee agreed to provide automatic fire detection in the following areas:

- M-G set ventilation supply room corridors (fire areas 76 and 77).
- Condensate demin phase separator tank area (fire area 72F).
- Radwaste surge tank area (fire area 74).
- Condensate sludge mixing pump room (fire area 72E).

- Condensate demin piping tunnel, backwash tank room, valve operating room, corridor above demineralizers, (fire area 78A).
- HP Utility room (fire area 82).
- Above control room ceiling (fire area 108).

Licensee presented an evaluation of test results for the internal conduit seals (control room floor slab) and the pressure barrier seals (secondary containment barriers and control room enclosure envelope).

- H. Licensee letter of July 22, 1983 addresses emergency lighting concerns, and proposes emergency lighting for the following areas:

- The diesel generator rooms - local control panels.
- HPCI alternative shutdown panels.
- Several valve locations throughout the reactor buildings.
- Additional 4 KV switchgear rooms.
- HPCI and RCIC pump compartments.
- Access and egress routes thereto.

The final list of areas requiring emergency lighting was to be included with the alternative shutdown submittal which was scheduled for September 16, 1983.

NRC was requested to continue their review of the penetration seal exemption request.

- I. Appendix R submittal was made on September 16, 1983.
- J. Since no final SER has been issued by the Division of Licensing, the requirement date for modification completion has not been established. However, the licensee by letter dated May 2, 1983 stated that the modifications for each of the plants will be completed after the first refueling outage after January 1, 1984. This should be fall of 1984 for Unit 3 and spring of 1985 for Unit 2.
- K. P.M. indicated on 10/24 83 that the Appendix R submittal was made on September 16, 1983 and was presently being reviewed by ASB & Chem. B. No response is expected till early 1984.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION I

DATE May 2, 1983

REVISION DATE December 31, 1983

1. PLANT Pilgrim 1 TYPE BWR PWR RATING 655 MW MFG GE

2. LOCATION Plymouth, MA COMMERCIAL OPERATING DATE 12/72

3. LICENSEE Boston Edison

4. DOCKET NO. 50-293 5. APPENDIX R - SUBMITTAL DATE: 1/80
6/25/82

6. SAFETY EVALUATION REPORT (SER) DATE November 2, 1983 (Revised)
OR EXEMPTION REQUEST DENIAL DATE _____

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS End of Refueling Outage #7
Start December 1985, End February 1986
Mod. completion March 1986

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Seventeen fire areas,
including the control room and cable spreading room.

A. An SER was issued in December 1982 in which the proposed design for alternative safe shutdown was concluded to be in accordance with Appendix R III.G.3 and D III.L requirements with the exception of:

1. Supression pool temperature and level indications.
2. Positive means of isolating the RHR isolation valves.
3. Switches or other devices to eliminate the need for pulling fuses during hot shutdown.

B. The licensee has been requested to provide documentation which confirms that all post fire alternative shutdown circuits that share a common bus have coordinated protection.

C. By letter dated June 25, 1982, Boston Edison Co. requested 10 exemptions from the III.G requirements of Appendix R.

- D. On January 31, 1983, the NRC denied all exemption requests. Boston Edison did not provide sufficient information to support the requests.
- E. In the appeals process as of May 1983.
- F. BE Co. by letter dated May 17, 1983 submits exemption requests for the following fire zones:

- Fire zone 1.30A (torus compartment)
- Fire zones 1.9 and 1.10 (el. 23'-0" Rx building).
- Fire zones 1.11 and 1.12 (el. 51'-0" Rx building).
- Fire zone 3.5 (vital M.G. set room, el. 23'-0").

Licensee made schedular exemption request to allow completion of modifications by the startup from refuel outage #7, which is tentatively scheduled to commence in December, 1985.

- G. Licensee's letter dated May 13, 1983 supplied schedule for changes to fire protection technical specifications.
- H. BE Co. letter dated July 22, 1983 provided a list of all fuses that are planned to be removed should a fire occur in any of the fire zones at Pilgrim Unit 1.
- I. November 8, 1983 - P. M. indicated that SER should be issued soon. The December 1985 RFO is the likely modification completion cycle
- J. NRC internal memorandum dated August 15, 1983 refers to supplemental SER for Appendix R which contains NRC actions for open items in SER dated December 1982 (See A).
- K. NRC letter to licensee, dated November 2, 1983, notified Boston Edison Co. that alternative safe shutdown capability is in accordance with Appendix R III G.3 and III L requirements with respect to 17 fire areas including the control room and cable spreading room.
- L. The modification completion date based on 10 CFR 50.48(C)4 is end of RFO #7, March 1986.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION I

DATE May 2, 1983

REVISION DATE December 31, 1983

1. PLANT Salem 1 TYPE PWR PWR RATING 1090 MW MFG WX
2. LOCATION Salem, NJ COMMERCIAL OPERATING DATE 1977
3. LICENSEE Public Service Electric and Gas Co.
4. DOCKET NO. 50-272, 50-311 5. APPENDIX R - SUBMITTAL DATE: 9/81, 3/19/81, 8/4/81, 12/4/81
6. SAFETY EVALUATION REPORT (SER) DATE May 31, 1983 (revision)
OR EXEMPTION REQUEST DENIAL DATE N.A.
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS August 1984
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room, cable spreading room and the relay room. The alternative shutdown method will be accomplished by procedural means, with actions performed at the local shutdown stations or local at the equipment.
 - A. On October 28, 1982, the NRC issued an SER which stated that Salem Units 1/2 were in compliance with Appendix R, III.G.3 and III.L subject to the provision of a source range neutron flux monitor independent of control room.
 - B. On January 12, 1983, a supplemental SER was issued which acknowledged Salem's agreement to install source range neutron flux monitor remote from control room.
 - C. Salem had made 14 exemption requests for fire protection concerns. On December 29, 1982, the NRC granted all 14 exemption requests. Note: NRC had previously denied exemption request for relief from providing one hour fire barriers in the auxiliary feedwater pump room and automatic fire suppression system in 25 areas in Units 1/2.

- D. Public Service Electric and Gas was notified by letter dated May 31, 1983 that Salem Units 1&2 were in compliance with title 10 CFR part 50, Appendix R items III.G.3 and III.L regarding safe shutdown in the event of a fire in the relay room, the cable spreading room or the control room. The schedule for completion of the required modifications was specified to be in 10 CFR part 50.48 (c)(4).
- E. PSE&G was notified by letter dated June 17, 1983 that 16 exemption requests for unit 1 had been processed resulting in 14 being granted and 2 no longer necessary.
- F. NRC letter to PSE&G dated May 31, 1983 informed the licensee that:
- Smoke detectors should be installed in fire areas P2C-1, P2C-3, P2C-4, P2C-5 and P2F-1.
 - B diesel control cable tray 2A217 should be wrapped between trays 2A255 and 2A218 in area P2H-1 with FS195 one hour fire barrier material.
 - Smoke detectors should be provided for fire area P2G-1 for Unit 2. Unit 1 is not required to make this modification for fire area P1G-1.
 - Licensee should provide a request to amend the Unit 2 license to include the required modification in fire area P2G-1 and also provide the completion dates for all the modifications in Unit 2.
- G. PSE&G letter dated June 30, 1983 incorporated the request for amendment and the analysis of the change to facility operating license DPR-75 for Salem generating station Unit No. 2.
- H. Modification completion date is August 1984 for Salem 1 based on 10 CFR part 50.48(c)(4).
- I. Salem 1 scheduled for inspection January 1984.
- J. P. M. indicated, on 10/27/83, that Unit 1 next RFO will start May 1984 and end in July 1984.
- K. November 8, 1983 - P.M. apprised that inspection will involve random sample areas and that procedures required for post fire safe shutdown are desirable.
- L. November 30, 1983 - Spoke to P. M. - He was going to plant for SALP meeting and would endeavor to obtain an additional copy of the Appendix R analysis and multiple copies of the procedures.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION I DATE May 2, 1983/May 13, 1983
REVISION DATE December 31, 1983

1. PLANT Three Mile Island Unit 1 TYPE PWR PWR RATING 792 MW MFG B&W

2. LOCATION Harrisburg, PA COMMERCIAL OPERATING DATE 9/74

3. LICENSEE G.P.U. Nuclear Corporation

4. DOCKET NO. 50-289 5. APPENDIX R - SUBMITTAL DATE: 6/28/82

6. SAFETY EVALUATION REPORT (SER) DATE None
OR EXEMPTION REQUEST DENIAL DATE 12/27/82

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room and relay room.

A. Three Mile Island Unit I was shut down for an indefinite period.

B. On December 27, 1982, an NRC internal memorandum was issued in which 11 exemption requests from III.G. were allowed and three were denied for a total of 14 actions. The three which were denied were:

1. Heat exchanger vault (fire zone AB-FZ-1).
2. General area - elevation 281 feet (fire zone AB-FZ-5).
3. Control building 4160 V switchgear IE area (fire zone CB-FA-3b).

The requests were denied because the licensee provided partial fire detection and suppression systems to achieve compliance with III G.2. This information was sent to GPUM in a Draft SE on January 14, 1983.

C. On March 9, 1983 GPUN was notified of NRC action on three schedular exemption requests made in letter dated July 1, 1982.

- D. A meeting was held on March 15, 1983 with GPUN at which the staff entertained the appeal of the exemption request denials relating to III.G.2 concerns. GPUN agreed to:

1. Investigate the installation of area detection in the control building 4160 V switchgear 1E area.
2. In general area, elevation 281 feet, GPUN proposed to provide a detection system for the portion of area which contains components subject to Appendix R requirements.
3. In heat exchanger vault, GPUN agreed to the provision of fire detection, however, they will also try to establish adequate free separation.

GPUN was given additional time to April 12, 1983 to submit additional information. GPUN advised that it would provide modifications which are categorized with respect to implementation requirements by about March 29, 1983.

- E. NRC internal memorandum dated March 24, 1983 - resolution apparently reached; licensee's submittal should be made April 13, 1983; CMEB SER to be issued May 27 1983.
- F. CMEB SER has been issued as of May 1983 stating that all non-shutdown modifications should be completed.
- G. GPU nuclear letter dated April 8, 1983 informed the NRC that they commit to the installation of tray mounted ionization detection on cable trays in fire zone AB-FZ-1 (heat exchanger vault); to install fire detection capability for the localized area of concern in fire zone AB-FZ-5 (Aux. bldg el. 281'); to provide 3 hour rated barriers for safe shutdown circuits in fire zone CB-FA-3B (4160 volt switchgear room).

Exemption requests to not require the installation of an automatic suppression system in fire zone AB-FZ-1 and fire zone AB-FZ-5 are still in effect.

- H. NRC internal memorandum dated May 16, 1983 recommended that 13 exemption requests be granted and concluded that 1 exemption request was no longer necessary. Exemption requests were granted for the following areas:

1. Reactor building outside secondary shield, North (zone RB-FZ1a).
2. Valve Gallery (zone AB-FZ-3).
3. Engineered Safeguards motor center B (zone AB-FZ-6a).
4. Control building health physics and lab area (zone CB-FA-1).
5. Penetration area (zone AB-FZ-4).
6. IR switchgear area (zone ISPH-FZ-1).
7. IT switchgear area (zone ISPH-FZ-2).
8. Demineralizers and MCC A (zone AB-FZ-6).
9. Valve gallery and penetration room (zone 1B-FZ-1).
10. Motor driven emergency feedwater pump area (zone 1B-FZ-3).
11. Decay heat removal and nuclear service closed cycle cooling pump area (zone AB-FZ-7).
12. Heat exchanger vault (fire zone AB-FZ-1).
13. General area - elevation 281 feet (zone AB-FZ-5).

The licensee no longer required an exemption for the control building 4160V switchgear room. There was concern expressed in the SER that the licensee did not evaluate the plant for compliance with Appendix R on the basis of valid fire areas. In addition, the licensee appeared to have relied on partial fire protection systems and arbitrarily delineated "fire zones". The NRC concluded that the licensee might find it necessary to request additional exemptions.

- I. The modification completion date cannot be established since no final SER from division of licensing has been issued.
- J. P. M. indicated that no SER has been issued to date (10/83).
- K. December 12, 1983 - P.M. indicated that no SER has been issued.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 1

REGION I

DATE April 22, 1983
REVISION DATE December 31, 1983

1. PLANT Vermont Yankee 1 TYPE BWR PWR RATING 514 MW MFG GE
2. LOCATION Brattleboro, VT COMMERCIAL OPERATING DATE *
*2/13/81, 3/18/81, 7/31/81, 6/3/80, 11/24/80.
3. LICENSEE Vermont Yankee Nuclear Power
4. DOCKET NO. 50-271 5. APPENDIX R - SUBMITTAL DATE: *
*6/3/80, 11/24/80, 2/13/81, 3/18/81, 7/31/81.
6. SAFETY EVALUATION REPORT (SER) DATE 1/13/83, not at BNL
OR EXEMPTION REQUEST DENIAL DATE N.A.
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS See Item C
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Switchgear room, cable spreading room and control room.
 - A. As of October 29, 1982, ASB submitted a safety evaluation report (SER) which indicated that Vermont Yankee was in accordance with Appendix R III.G.3 and III.1 requirements with respect to safe shutdown in the event of fire in the control room, the cable spreading room, and the switchgear room, pending the licensee's commitment to provide a positive means of isolating the RHR shutdown cooling isolation valves.
 - B. The type of modifications which were proposed in order to comply with Appendix R were: installation of one hour fire barriers, local RCIC control panel, dc power supply, isolation and transfer switches.
 - C. P.M. stated modifications would be 95% complete by 7/1/83.
 - D. Vermont Yankee inspection completed the week of 8/29/83 - 9/2/83.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 1

REGION I

DATE May 3, 1983

REVISION DATE December 31, 1983

1. PLANT Yankee-Rowe 1 TYPE PWR PWR RATING 175 MW MFG WX

2. LOCATION Greenfield, MA COMMERCIAL OPERATING DATE 1980

3. LICENSEE Yankee Atomic Electric Co.

4. DOCKET NO. 50-29 5. APPENDIX R - SUBMITTAL DATE: 1/5/81, 3/19/81
6/15/81, New
submittal-4/12/83.
old SER November 24, 1982.

6. SAFETY EVALUATION REPORT (SER) DATE None
OR EXEMPTION REQUEST DENIAL DATE N.A.

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room and
cable spreading room.

A. Alternative safe shutdown employs existing plant systems located outside of fire zone but with new instrumentation, control and power supplies where required.

B. Licensee has submitted a new submittal dated April 12, 1982 which includes a conceptual design for Appendix R which is to be coordinated with their SEP program.

C. Yankee Atomic Electric Company letter dated June 9, 1983 informs NRC that cold shutdown is achievable within 150 hours with the proposed integrated shutdown system.

D. No modification date can be established until final SER is issued by the Division of Licensing.

E. November 22, 1983 - P. M. indicated that a review of Appendix R submittal is in progress - SER is scheduled for February -March, 1984.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION II

DATE May 3, 1983/May 19, 1983
REVISION DATE December 31, 1983

1. PLANT Browns Ferry 1/2/3 TYPE BWR PWR RATING 1067 MW MFG GE

Unit 1 - 8/74

Unit 2 - 3/75

2. LOCATION Decatur, AL COMMERICAL OPERATING DATE Unit 3 - 3/77

3. LICENSEE Tennessee Valley Authority

4. DOCKET NO. 50-259, 50-260
50-296 5. APPENDIX R - SUBMITTAL DATE: 6/30/82

6. SAFETY EVALUATION REPORT (SER) DATE October 12, 1983 (Revision)
OR EXEMPTION REQUEST DENIAL DATE N.A.

Unit 1 - End of Oct. 1984

RFO (Jan 85)

Unit 2 - End of 1985

RFO

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS Unit 3-end of March 1985 RFO

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Main control room,
cable spreading room and auxiliary instrument room. Portions of
reactor building/diesel generator room turbine, building/intake pumping
station, and battery board rooms and shutdown board rooms.

A. On September 29, 1982, the NRC granted two exemption requests--battery and battery board room were found to provide a level of fire protection equivalent to III.G.2. The level of protection provided for the control rooms are considered equivalent to III.G.3.

B. On November 30, 1982, an SER was issued which stated that Brown's Ferry Nuclear Plant was in accordance with Appendix R III.G.3 and III.L requirements with the following exception: suppression pool temperature and level indication, independent of the control room have not been provided.

C. On January 28, 1983, a supplemental SER was issued which indicated that the licensee had agreed to install suppression pool temperature and level monitors independent of the control room.

- D. On February 4, 1983, TVA was informed that the exemption requests were granted for the battery and battery board room complexes and the control rooms.

Note: in February 4, 1983 letter, the licensee requested exemptions to the schedular requirements.

- E. On April 30, 1983 - Licensee made 48 schedular exemption requests to 1986 and 1987, (based on telephone call to P.M.).
- F. Meeting scheduled for May 25, 1983 to discuss proposed design changes to the conceptual alternate safe shutdown proposal.
- G. Quarterly report of March 31, 1983 stated that there were schedular exemption requests that have not yet been resolved.
- H. P. M. indicated 10/20/83 that no action had been taken on schedular exemptions.
- I. December 7, 1983 P.M. expects new Appendix R submittal sometime in January 1984.
- J. An SER was issued October 12, 1983 which concluded that the Brown's Ferry Units 1, 2 and 3 design provided one train of systems necessary to achieve and maintain safe shutdown conditions.
- K. Modification completion date based on 50.48 (c)(4) is the end of October 1984, RFO for Unit 1 (January 1985) End of 1985 RFO for Unit 2, and End of March 1985 RFO for Unit 3 (See I).

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION II

DATE May 3, 1983/May 13, 1983

REVISION DATE December 31, 1983

1. PLANT Brunswick 1/2 TYPE BWR PWR RATING 790 MW MFG GE

2. LOCATION Wilmington, NC COMMERCIAL OPERATING DATE Unit 1 - 3/77
Unit 2 - 11/75

3. LICENSEE Carolina Power and Light Co.

4. DOCKET NO. 50-325, 50-324 5. APPENDIX R - SUBMITTAL DATE: 6/30/82

6. SAFETY EVALUATION REPORT (SER) DATE None
OR EXEMPTION REQUEST DENIAL DATE March 7, 1983

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room, cable spreading room.

- A. The licensee has requested a total of 79 exemptions primarily relating to fire protection, i.e., suppression and fire barrier protection. NRC has denied 71 and granted eight of the exemption requests (memorandum March 7, 1983).
- B. NRC internal memorandum dated March 24, 1983 appeal meeting was set for first week of April, schedule to follow December 10, 1982 memorandum.
- C. Carolina Power and Light Company, in a letter dated July 21, 1983, attempted to provide clarifying information concerning penetrations in the reactor building and service water building ceilings and floors.
- D. CP&L letter dated July 21, 1983 attempted to clarify agreements which were made in May 2, 1983 letter and modified at the June 10, 1983 meeting and subsequent telephone conversations.

- E. An NRC letter dated July 27, 1983 granted seven exemption requests pertaining to the installation of fixed fire suppression in the control building cable vaults. Two exemption requests relative to the installation of a manually operated sprinkler system in the cable spreading room were considered to be unnecessary.

57 additional exemption requests which were referred to in the CP&L letter dated May 2, 1983, were denied.

- F. The modification completion date cannot be established since this plant has had exemption requests denied and no final SER from the Division of Licensing has been issued.
- G. October 25, 1983; P.M. indicated that periodic meetings will be held in effort to resolve Appendix R status. The next meeting was scheduled for November 3, 1983 when the licensee was to submit a list of redundant equipment required for compliance.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION II

DATE May 3, 1983

REVISION DATE December 31, 1983

1. PLANT Crystal River 3 TYPE PWR PWR RATING 797 MW MFG B&W

2. LOCATION Crystal River, FL COMMERCIAL OPERATING DATE 3/77

3. LICENSEE Florida Power Corporation

4. DOCKET NO. 50-302 5. APPENDIX R - SUBMITTAL DATE: 12/9/82
10/29/82

6. SAFETY EVALUATION REPORT (SER) DATE 4/15/83 (Notification by NRC)
OR EXEMPTION REQUEST DENIAL DATE N.A.

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS 4/15/83 + 6 mos. and
start up after next RFO.
RFO to start approx. Mar 85
ends about June 85(revision)

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room, cable
spreading room and control complex HVAC equipment room.

A. The licensee plans to install a dedicated shutdown panel, a dedicated HVAC system control complex equipment room, reroute redundant circuits, isolation switches and relays, enclose raceways with 1-h rate fire barriers, fire detection and suppression.

B. On December 28, 1982, the NRC internal memorandum stated that the safe shutdown capability in the event of fire in the control room, cable spreading room, or control complex HVAC equipment room was in accordance with Appendix R, Sections III.G.3 and III.L requirements except for the intention to provide source range neutron flux monitoring capability. In addition, it was noted that the licensee had not completed the design of the dedicated HVAC system.

C. On February 9, 1983, an exemption request was granted for a fixed suppression system in the control room.

Page 2 of 2
Crystal River 3

- D. NRC memorandum dated June 28, 1983 acknowledged that Florida Power had determined that dampers installed as part of the 3-hour fire barriers at the Crystal River 3 facility were certified for 1 1/2 hour rating.
- E. No modification date can be established until final SER is issued by the Division of Licensing (see G).
- F. Inspection has been scheduled for April 1985.
- G. Per NRC status report dated 2/11/83, modification completion date - April 15, 1983 + 6 months and start up after next RFO. Completion date should be June 1985.
- H. December 7, 1983 P.M. indicated that the next RFO will start about March 1985 and will last approximately 15 weeks. There were no exemption requests.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION II

DATE May 3, 1983

REVISION DATE December 31, 1983

1. PLANT Farley 1 TYPE PWR PWR RATING 829 MW MFG WX
2. LOCATION Dothan, AL COMMERCIAL OPERATING DATE Unit 1 - 12/77
Unit 2 - 6/81
3. LICENSEE Alabama Power Co.
4. DOCKET NO. 50-348, 50-364 5. APPENDIX R - SUBMITTAL DATE: *
*3/19/81, 6/18/82, 7/1/82, 7/27/82.
6. SAFETY EVALUATION REPORT (SER) DATE August 26, 1983 (revision)
OR EXEMPTION REQUEST DENIAL DATE N.A.
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS Unit 1-July 1984, Unit 2-
Next RFO-1985 (revisions).
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room and cable
spreading room.
 - A. Containment was determined, by licensee, not to be in compliance with Section III.G.2 of Appendix R. Consequently the licensee submitted an exemption request which is being reviewed by CMEB.
 - B. On November 15, 1982, a NRC internal memorandum was issued which stated the Farley Units 1 & 2 were in accordance with Appendix R, Sections III.G.3, and III.L. Requirements except for the following items:
 1. The absence of a source range neutron flux monitoring capability at the alternate shutdown panel.
 2. The absence of a cold leg temperature monitoring capability at the alternate shutdown panel.

- C. NRC internal memorandum dated April 22, 1983 states that both units should meet the guidelines of Appendix A to Branch Technical Position APCS 9.5-1.
- D. Alabama Power Company letter dated May 20, 1983 informed NRC that Alabama Power would provide reactor coolant system cold leg temperature (RCS T_{cold}). The licensee had determined that the addition of a source range neutron monitor to the Farley hot shutdown panel would be a very expensive modification (\$390,000.00) that would not contribute to the determination of an adequate shutdown margin.
- E. CME branch memo dated May 23, 1983 granted 1 exemption request which was applicable to both Unit 1 and Unit 2. The licensee had not requested any other exemptions.
- F. NRC letter dated August 26, 1983 concluded that Farley 1 system design as proposed was acceptable and was in accordance with Appendix R, Sections III.G.3 and III.L with one exception, a direct core reactivity monitor.
- G. By letter dated September 28, 1983 Alabama Power committed to the installation of a source range neutron monitor at the Farley 1 shutdown Panels.
- H. Modification completion date based on 10 CFR 50.48(c)(4): Unit 1-July, 1984; Unit 2-Next RFO in 1985.
- I. On December 1, 1983, P.M. indicated that scheduler exemption requests were currently being evaluated.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION II

DATE May 3, 1983

REVISION DATE December 31, 1983

1. PLANT Hatch 1/2 TYPE BWR PWR RATING Unit 1-786 MW
Unit 2-795 MW MFG GE
2. LOCATION Baxley, GA COMMERCIAL OPERATING DATE Unit 1 - 12/75
Unit 2 - 12/79
3. LICENSEE Georgia Power Co.
4. DOCKET NO. 50-366, 50-321 5. APPENDIX R - SUBMITTAL DATE: *
*3/19/81, 5/18/81, 7/1/82, 8/5/82.
6. SAFETY EVALUATION REPORT (SER) DATE None
OR EXEMPTION REQUEST DENIAL DATE 12/8/82
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None (lic. says 9/86)
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room and cable spreading room.
- A. On November 17, 1982, a NRC memorandum was issued which stated that Hatch Units 1 & 2 conceptual design for alternative safe shutdown was in accordance with Appendix R III.G.3 and III.L requirements.
- B. On December 8, 1982, a NRC memorandum was issued which denied seven and granted five exemption requests to Appendix R III.G.2.
- C. Meeting to attempt resolution was held March 30, 1983; submittal of resolution should be April 27, 1983; CMEB SER should be issued June 3, 1983.
- D. Georgia Power Co. letter dated May 27, 1983 provided a detailed clarification of request for exemptions from 10CFR 50.48 and Appendix R.

- E. Georgia Power Co. letter dated June 14, 1983 provided additional information of 10CFR 50.48 and Appendix R modification schedule. Anticipated modification completion date was stated to be September, 1986.
- F. The modification completion date cannot be established since this plant has had exemption requests denied and no final SER from the Division of Licensing has been issued.
- I. October 20, 1983, P.M. indicated that the SER should be available soon.
- J. November 22, 1983, P.M. indicated Appendix R submittal was still under review.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION II

DATE May 4, 1983

REVISION DATE December 31, 1983

1. PLANT North Anna 1 TYPE PWR PWR RATING Unit 1-865 MW
Unit 2-890 MW MFG WX
2. LOCATION Richmond, VA COMMERCIAL OPERATING DATE Unit 1 - 6/78
Unit 2 - 12/80
3. LICENSEE Virginia Electric Power Co.
4. DOCKET NO. 50-338, 50-339 5. APPENDIX R - SUBMITTAL DATE: 6/22/82
6. SAFETY EVALUATION REPORT (SER) DATE 11/18/82
OR EXEMPTION REQUEST DENIAL DATE N.A.
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS Unit 1-1/85, Unit 2-next
refueling outage.
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Units 1 & 2 control
room; Unit 1, emergency switchgear room; Unit 2, emergency switchgear
room; Unit 1, cable vault and tunnel; Unit 2 cable vault and tunnel;
Unit 1, auxiliary building; Unit 2, auxiliary building.
- A. On November 18, 1982, a SER was issued which stated that North Anna
1 has alternative safe shutdown capability which complies with
Appendix R III.G.3 and III.L.
- B. The modification completion dates to comply with Sections III.G.3 and
III.L are estimated to be as follows:
1. Unit 1 - December 1984.
 2. Unit 2 - next refueling outage

Based on the application of 50.48(c)(4).

- C. VEP Co. letter dated June 13, 1983 provided additional information to support their exemption request from supplying fixed suppression in the control room for units 1 and 2.
- D. An inspection is scheduled for June 1984.
- E. November 8, 1983, P.M. indicated no current exemption requests. Expects the licensee to review status early next year.
- F. December 1, 1983, P.M. indicated that a pre-inspection was conducted a few months ago. Licensee is presently evaluating fire protection and will have additional exemption requests.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION II

DATE April 22, 1983

REVISION DATE December 31, 1983

1. PLANT Oconee 1/2/3 TYPE Triple PWR PWR RATING 860 MW MFG B&W
Unit 1 - 1973
Unit 2 - 1974
Unit 3 - 1974
2. LOCATION Greenville, So. CA COMMERCIAL OPERATING DATE Unit 3 - 1974
3. LICENSEE Duke Power Company
4. DOCKET NO. 50-287 5. APPENDIX R - SUBMITTAL DATE: 4/30/81
50-269 3/28/80
50-270 3/18/81
6. SAFETY EVALUATION REPORT (SER) DATE April 28, 1983 (revision)
OR EXEMPTION REQUEST DENIAL DATE N.A.
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS September 1985 (Revision)
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room and all areas required for hot shutdown.
- A. Whenever possible, the existing plant systems will be used to achieve hot shutdown. A Safe Shutdown Facility (SSF) will be used when the existing plant systems or facilities of one of the three units are unavailable due to fire. The SSF is not designed to bring the reactor from hot shutdown to cold shutdown. Cold shutdown will be achieved and maintained through the use of existing plant systems and equipment. The SSF is considered as being a dedicated system which consists of a house, makeup pump, auxiliary service water system, service water system, HVAC, and sump system.
- B. The safe shutdown facility is an independent area which houses a standby power diesel power supply that energizes the 4160 VAC SSF power system bus. This represents a major modification which incorporates the installation of the pumps, electrical, and mechanical systems which are necessary to provide all of the above standby services.

- C. Supplementary ASB SER issued April 29, 1983 in which three of nine exemption requests were granted and six were determined to be unneeded.
- D. NRC letter and SER dated April 28, 1983 informed the Duke Power Co. that the SSF design meets the appropriate requirements of Appendix R to 10 CFR 50, Sections III.G.3 and III.L with the exception of process monitoring instruments for source range flux and steam generator pressure indication.
- E. NRC internal memorandum dated August 2, 1983 granted exemption requests from the requirements of Appendix R to supply source range flux monitor and steam generator pressure indication.
- F. Inspection has been scheduled for April, 1984.
- G. Legal modification date per 10CFR 50.48 (c)(4) is 30 months after NRC approval, or September, 1985.
- H. On 10/27/83, P.M. stated that Oconee was in the process of tying in the control room.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION II

DATE May 4, 1983

REVISION DATE December 31, 1983

1. PLANT Robinson 2 TYPE PWR PWR RATING 665 MW MFG W
2. LOCATION Hartsville, SC COMMERCIAL OPERATING DATE 1971
3. LICENSEE Carolina Power and Light
4. DOCKET NO. 50-261 5. APPENDIX R - SUBMITTAL DATE: 4/1/80, 6/2/80, 3/21/80, 3/ /80
6. SAFETY EVALUATION REPORT (SER) DATE 11/22/83
OR EXEMPTION REQUEST DENIAL DATE 12/10/82
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Propose a dedicated control panel to allow safe shutdown.
 - A. On December 10, 1982, a draft SER was issued which denied four exemption requests and granted three. The licensee's dedicated safe shutdown proposal did not comply with the requirements of Appendix R.III.L due to the inability to achieve cold shutdown conditions within 72 hours. In addition, exemption requests were denied for the component cooling pump room (fire zone 5), pipe alley (fire zone 28), and the oil collection system.
 - B. CP&L indicated in a letter dated December 30, 1982 that they intended to exercise their right of appeal.
 - C. On January 7, 1983, CP&L submitted additional information in support of the exemption request for the oil collection system.
 - D. On March 24, 1983, the NRC evaluated the status as follows: CMEB SER should be issued May 13, 1983.

- E. Carolina Power & Light Co. by letter dated June 7, 1983 provided additional clarifying information for the component cooling water pump room and reactor coolant pump lube oil collection exemption requests. At the same time, they were withdrawing the exemption request for the pipe alley.
- F. Carolina Power & Light Co. by letter dated June 29, 1983 provided additional clarifying information regarding the location of proposed modifications at the 231 foot elevation of reactor coolant pump bays B and C.
- G. The modification completion date cannot be established since this plant has had exemption requests denied.
- H. On 10/25/83, the P.M. indicated that the SER was being prepared and should be issued sometime in November 1983.
- I. SER issued November 22, 1983.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION II

DATE May 3, 1983

REVISION DATE December 31, 1983

1. PLANT St. Lucie 1 TYPE PWR PWR RATING 777 MW MFG C-E
2. LOCATION Ft. Pierce, FL COMMERCIAL OPERATING DATE 12/76
3. LICENSEE Florida Power and Light
4. DOCKET NO. 50-335 5. APPENDIX R - SUBMITTAL DATE: 6/10/82
6. SAFETY EVALUATION REPORT (SER) DATE None
OR EXEMPTION REQUEST DENIAL DATE 1/14/83
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND None proposed.
 - A. September 16, 1982 NRC memorandum stated that the licensee has proposed no modifications which constituted alternative or dedicated shutdown capability.
 - B. The licensee by letters dated June 10, 1982 and October 12, 1982, requested 32 exemptions from Sections III.G and III.J of Appendix R to 10 CFR 50. In addition, eight open items remained from the November 24, 1980 fire protection SER.
 - C. By letter dated January 14, 1983, NRC notified Florida Power and Light Co. that five of the remaining open items from the fire protection SER were closed. Three were still open, i.e., ventilation duct penetrations, cable spreading room fire barrier, and safe shutdown system.

- D. Also included in the January 14, 1983 letter to the licensee were the NRC actions relative to the 32 exemption requests from Sections III.G and III.J. Of these, five were granted, one was not needed, and 26 were denied.
- E. Alternative safe shutdown proposal was due on or about October 7, 1983 as stated by P.M.
- F. FPL letter dated April 12, 1983 regarding the submittal of Appendix R Fire Hazard Analysis.
- G. NRC internal memorandum dated April 18, 1983 granted exemption requests for the Division A switchgear room, aerated waste storage tank room and the gas decay tank cubicle. In addition, the installation of seven foot high partial height walls was accepted as a means of separating the charging pumps.
- H. FPL letter dated September 16, 1983 provided additional information to support the fire hazard analysis.
- I. The modification completion date cannot be established since this plant has had exemption requests denied and no final SER from the Division of Licensing has been issued.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION II

DATE May 3, 1983

REVISION DATE December 31, 1983

1. PLANT Surry 1/2 TYPE PWR PWR RATING 788 MW MFG WX

2. LOCATION Williamsburg, VA COMMERCIAL OPERATING DATE Unit 1-1972
Unit 2-1973

3. LICENSEE Virginia Electric and Power Co.

4. DOCKET NO. 50-280, 50-281 5. APPENDIX R - SUBMITTAL DATE: *

*10/29/80, 10/31/80, 5/19/81, 2/12/82, 6/18/82, 10,12/81.

6. SAFETY EVALUATION REPORT (SER) DATE November 18, 1982 and DSER
dated 12/10/82 (revision)
OR EXEMPTION REQUEST DENIAL DATE 12/10/82

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS Unit 1-December 1984
Unit 2-Nov. 1983 (revision)
(Note: Licensee has exemption request to complete Unit 2, 2/1/85)

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room, emergency
switchgear rooms - cable vault and tunnel areas, cable tray rooms,
portions of the auxiliary building, and auxiliary feedwater pump
houses.

A. The licensee states that two systems which may require repair in order to reach cold shutdown are the residual heat removal system (RHR) and the pressure heaters.

B. On November 18, 1982, a SER was issued to VE&P Co. which stated that the Surry Power Station was in compliance with the requirements of Sections III.G.3 and III.L to Appendix R, except for a fixed suppression system in the control room and emergency switchgear rooms. Exemption requests had been previously submitted by the licensee letter dated July 23, 1982 to remove the requirement for fixed suppression in the above areas.

- C. On November 24, 1982, a SER was issued granting the exemption request from providing fixed suppression in the control room. NRC was still evaluating the exemption request from supplying fixed suppression for the emergency switchgear room.
- D. On December 10, 1982, a draft SER was issued in which the exemption request from providing fixed suppression in the emergency switchgear rooms was denied.
- E. VEP Co. letter dated June 27, 1983 incorporated change in the re-fueling outage schedule for Surry Unit 2 which was previously scheduled for May 1, 1983 and was scheduled to commence June 27, 1983.
- F. NRC memorandum dated September 15, 1983 stated that the Appendix R inspection for Surry Units 1&2 is scheduled for September 1984.
- G. Modification completion dates based on 10CFR 50.48 (C)(4) should be December, 1984 for Unit 1 and November, 1983 for Unit 2.
- H. On 10/83, P.M. indicated that the 2-month shift of the R.F.O. for Unit 2 did occur (see E).

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION II

DATE May 4, 1983

REVISION DATE December 31, 1983

1. PLANT Turkey Point 3/4 TYPE PWR PWR RATING 728 MW MFG WX
2. LOCATION Miami, FL COMMERCIAL OPERATING DATE Unit 3 - 12/72
Unit 4 - 9/73
3. LICENSEE Florida Power & Light
4. DOCKET NO. 50-250, 50-251 5. APPENDIX R - SUBMITTAL DATE: 11/10/82
7/1/82
6. SAFETY EVALUATION REPORT (SER) DATE None
OR EXEMPTION REQUEST DENIAL DATE Draft - 1/6/83 and 2/14/83
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND None proposed.
 - A. The licensee does not propose to install an alternative shutdown system. They are relying on flame retarded cables, fire protection and cable rerouting.
 - B. The plant was divided into 132 fire areas. Exemption requests, based on a combination of fire protection modification, administrative procedural controls and fire hazards analyses, were made for 20 fire areas.
 - C. NRC issued an internal memorandum on December 30, 1982 in which five exemption requests were granted and 15 denied.
 - D. A draft SE was sent to the licensee on January 6, 1983 which provided information regarding the staff's actions on the exemption requests.
 - E. On January 17, 1983 and February 15, 1983, FP&L requested more time to respond to the draft SE of January 6, 1983.

- F. FPL letter dated April 8, 1983 accompanied the revised fire protection submittal for Turkey Point Units 3&4 which included their request for exemptions to Appendix R and the basis for these exemptions.
- G. FPL letter dated September 30, 1983 provides a summary of clarifications to the fire protection report.
- H. In a NRC memorandum dated September 22, 1983, CMEB recommends the granting of 19 exemption requests, denial of 2 and determined that 1 was not needed. The licensee requested 22 exemptions from Section III.G and one exemption from Section III.O of Appendix R to 10 CFR50. The licensee requested exemptions from the requirements of Section III.G.2 to the extent that it requires 20 feet of separation, and the installation of total area coverage automatic fire suppression systems.
- I. The modification completion date cannot be established since no final SER has been issued and 2 exemption requests are still denied.
- J. On December 12, 1983, P.M. indicated that all exemption requests have been approved by CMEB. ASB was still reviewing the alternate safe shutdown proposal.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION III

DATE May 4, 1983

REVISION DATE December 31, 1983

1. PLANT Big Rock Point TYPE BWR PWR RATING 71 MW MFG GE

2. LOCATION Charlevoix, MI COMMERCIAL OPERATING DATE 12/65

3. LICENSEE Consumers Power Company

4. DOCKET NO. 50-155 5. APPENDIX R - SUBMITTAL DATE: *

*3/19/81, 4/1/81, 5/19/81, 9/24/81, 2/25/82, 7/9/82, 9/28/82.

6. SAFETY EVALUATION REPORT (SER) DATE 3/8/83
OR EXEMPTION REQUEST DENIAL DATE N.A.

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS 8/84 See "F" Revision

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Provides the capability for hot shutdown via the emergency condenser in the event of a fire in the control room, the electrical equipment room, the exterior cable penetration room, the containment electrical penetration area, the condensate pump room, the turbine generator room, or any other areas containing equipment, circuitry or power sources supporting the condensate, feedwater, and condenser systems. Repairs are utilized to provide the capability for cold shutdown in these areas.

A. In the event of a fire disabling the emergency condenser, the main feedwater system or the control rod drive pumps and the main condenser would be used to achieve safe shutdown with off-site power available. If off-site power is not available, the reactor depressurization and core spray systems are to be used to achieve cold shutdown.

B. On October 18, 1982, DSI initiated a memorandum which stated that staff concluded that the Big Rock Point plant was in accordance with Appendix R, Sections III.G and III.L and recommended the granting of two exemption requests.

- C. On March 8, 1983, the DL notified consumers power that the alternative safe shutdown system design meets the requirements of Sections III.G.3 and III.L of Appendix L of Appendix R except for the exemption which was granted to Section III.L.
- D. Big Rock Point has developed a contingency plan for repair of power to a control rod drive pump, the control rod drive booster pump, a shutdown cooling water pump, a reactor cooling water pump, and a spent fuel pool cooling pump. An exemption request has been granted which allows the licensee to provide a prefabricated power cable which will be connected to the diesel generator in the event of a fire in the control room, the electrical equipment room (cable spreading area), the exterior cable penetration, or the containment.
- E. The alternative shutdown capability and the fire protection modifications should be completed by August 1984, based on 10 CFR 50.48(C)(4).
- F. November 22, 1983, - P.M. indicated that Appendix R completion is dependent on integrated assessment expansion of SEP. Does not expect completion before 1985. PM will have more information February 1984.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 3

REGION III

DATE May 5, 1983

REVISION DATE December 31, 1983

1. PLANT Cook 1/2 TYPE Twin PWR PWR RATING 1060 MW MFG WX
2. LOCATION St. Joseph, MI COMMERCIAL OPERATING DATE Unit 1 - 1975
Unit 2 - 1978
3. LICENSEE Indiana and Michigan Electric Co.
4. DOCKET NO. 50-315, 50-316 5. APPENDIX R - SUBMITTAL DATE: 3/31/83
6. SAFETY EVALUATION REPORT (SER) DATE November 22, 1983 (revision)
OR EXEMPTION REQUEST DENIAL DATE 6/14/83
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS End of next RFO 1984 for
Unit 2, should be Nov. 1984
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control rooms, cable
vaults, and other appropriate areas.
 - A. On July 19, 1982, the licensee proposed to submit by March 31, 1983 their plans and schedules to comply with Section III.G of Appendix R. As of March 31, 1983, the NRC had not acted on the scheduler exemption request.
 - B. On March 31, 1983, the licensee submitted a letter which included numerous exemption requests. Exemption requests were made for three fire zones with respect to the requirements of Section III.G. These requests were for relief from providing 1-hr fire barrier protection or fire suppression:
 1. Exemption requests from requirements of Section III.G.3 with respect to the fixed fire suppression requirements were requested for 16 fire zones.

2. Two scheduler exemption requests were made by the licensee. The first, a scheduler exemption from 10 CFR 50.48(c)(4) with respect to the installation of modifications to achieve compliance with Section III.G.3 of Appendix R. Licensee requests - September 30, 1985 as the implementation date. The second, related to the date for compliance to Section III.J. The licensee requested October 31, 1985 as the date for compliance with III.J.
- C. The alternative safe shutdown system and the modifications which are required to comply with III.G.2 and III.G.3 was estimated to be completed by September 30, 1985 (licensees estimate).
- D. On March 24, 1983, the NRC evaluated the status as follows: licensee's submittal should be made by March 31, 1983; CMEB SER should be issued June 30, 1983.
- E. NRC memorandum dated June 14, 1983 states that of 12 exemptions requested, 6 were granted and 6 were denied. Exemption requests were granted for the following areas:
- RHR/CTS pump area (fire zone 1).
 - Units 1&2 transformer rooms (fire zones 14 & 20).
 - Units 1&2 ESW pump rooms (fire zones 29g, 29ga, 29gb, 29gc, 29gd, 29ge).
 - Units 1&2 East main steam enclosure (fire zones 33, 33A, 33B).
 - Units 1&2 control rooms (fire zones 53, 54).
 - Units 1&2 oil collection system.
- Exemption requests were denied for the following areas:
- Circulating water pump MCC's (fire zone 29 G).
 - CCW pump area (fire zone 44S).
 - Units 1&2 containment piping annulus (fire zones 66, 74).
 - Units 1&2 containment lower volume (fire zones 67, 75).
 - Units 1&2 containment actuator enclosure (fire zones 120, 121).
 - Units 1&2 containment instrument room (fire zones 122, 123).
- F. Indiana & Michigan Electric Company letter dated August 22, 1983 submits report titled "Supplemental Information, Safe Shutdown Capability Assessment and Proposed Modifications". This submittal provided supportive information for the exemption requests. The licensee expects the modifications to be in place by the end of the refueling outage of Unit 2 in 1985.
- G. Modification completion date based on 50.48 (c)(4) is end of RFO of Unit 2 in 1984 (should be November 1984).

- H. NRC internal memorandum dated October 28, 1983 grants 3 exemption requests for fire protection requirements of Appendix R.
- I. NRC internal memorandum dated November 4, 1983 relates to SER from ASB for the alternative shutdown capability for D.C. Cook Units 1&2. It was concluded that the design of the alternative shutdown capability complies with III G and III L of Appendix R. However, because of extensive reliance on shutdown procedures, the Licensee was required to submit the final shutdown procedures for review.
- J. Licensee letter dated November 4, 1983 provided additional information relating to embedded cables.
- K. An SER was issued to the Licensee on November 22, 1983. This information was obtained from the P.M. on December 1, 1983. At that time it was indicated that scheduler exemption requests were still being reviewed (See G).
- L. NRC letter to Licensee dated December 23, 1983 granted exemption requests in 8 fire zones.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 1

REGION III

DATE April 20, 1983

REVISION DATE December 31, 1983

1. PLANT Davis Besse TYPE PWR PWR RATING 906 MW MFG B&W
2. LOCATION Toledo, OH COMMERCIAL OPERATING DATE 1977
3. LICENSEE Toledo Edison Co.
4. DOCKET NO. 50-346 5. APPENDIX R - SUBMITTAL DATE: 3/19/81
6. SAFETY EVALUATION REPORT (SER) DATE 6/2/82
OR EXAMPTION REQUEST DENIAL DATE N.A.
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS 12/83
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Service water system only.
 - A. The SER dated June 2, 1982 states that the proposal to modify an existing dilution pump and piping to provide an alternate system to serve in place of the service water system is approved.
 - B. Exemptions were granted by SER dated November 23, 1982 for fixed fire suppression in control room 1-hr hour fire barrier for the component cooling heat exchanger and pump room.
 - C. The licensee states in their letter of March 19, 1981, that all fire protection system modifications have been completed with the exception of the alternative to the service water system (SWS).
 - D. The modifications should be complete by December 15, 1983, based on the application of 50.48(c)(4).
 - E. Davis Besse was inspected during the week of July 25 through July 29, 1983.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 3

REGION III

DATE May 5, 1983

REVISION DATE December 31, 1983

1. PLANT Dresden 2/3 TYPE BWR PWR RATING 794 MW MFG GE

2. LOCATION Morris, IL COMMERCIAL OPERATING DATE Unit 2 - 7/70
Unit 3 - 10/71

3. LICENSEE Commonwealth Edison Co.

4. DOCKET NO. 50-237, 50-249 5. APPENDIX R - SUBMITTAL DATE: *

*6/5/78, 2/9/79, 1/24/80, 2/29/80, 6/9/80, 11/5/80, 11/31/80,
1/23/81, 2/10/81, 3/18/81, 5/19/81, 8/3/81, 1/29/82.

6. SAFETY EVALUATION REPORT (SER) DATE 1/19/83
OR EXEMPTION REQUEST DENIAL DATE N.A.

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS Unit 2 - 11/84
Unit 3 - 12/83

Apply 50.48(c)(4) Licensee scheduler exemption requests states
Spring, 1986 - Unit 2 & Spring, 1985 - Unit 3 (revised)

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND The following zones:

- Unit 2 reactor building, elevation 517-6".
- Unit 2 reactor building, elevation 545-6".
- Unit 2 reactor building, elevation 570-0".
- Unit 2 Turbine building, elevation 517-6".
- Unit 2 turbine building, elevations 534-0" and 538-0".
- Unit 3 reactor building, elevation 517-6".
- Unit 3 reactor building, elevation 545-6".
- Unit 3 reactor building, elevation 570-0".
- Unit 3 cable tunnel.
- Unit 3 turbine building, elevation 517-6".
- Unit 3 turbine building, elevation 534-0".
- Units 2 and 3 control room.
- Units 2 and 3 auxiliary electric equipment room.
- Units 2 and 3 crib house.

- A. Twenty-four other fire zones will comply with Appendix R III.G.2 or approval of an exemption request has been granted by the staff.
- B. On November 5, 1982, a NRC internal memorandum was issued which stated that 11 exemption requests had been granted. These requests related to fire protection concerns.
- C. On November 24, 1982, a NRC internal memorandum was issued which stated that the proposed modifications and alternate capability for achieving safe shutdown complied with Appendix III.G.3 and III.L requirements.
- D. The modifications include rerouting of cabling, installation of breakers, and transfer switches for isolation, installation of local control stations, and piping crosstie for Units 2 and 3 control rod drive pumps.
- E. Commonwealth Edison was notified on January 19, 1983 that Dresden 2 and 3 were in compliance with Title 10 CFR Part 50, Appendix R, items III.G.3 and III.L regarding safe shutdown of evaluated areas in the event of a fire.
- F. Based on 10 CFR 50.48 (c)(4), the modification completion dates are:
 - 1. Unit 2 - November 1984
 - 2. Unit 3 - December 1983
- G. Inspection was scheduled for the week of November 14 through November 18, 1983 and was postponed - to be rescheduled.
- H. On February 2, 1983, the NRC granted exemptions from the requirement to provide fixed suppression for the following areas:
 - All panels located in the control room.
 - 4 kv SWGR's 23 and 24.
 - 4 kv SWGR's 23-1 and 24-1.
 - 480 V SWGR's 28 and 29.
 - 480 V MCC's 28-7 and 29-7.
 - 250 V MCC's 2A and 2B.
 - 125 V distribution panels 2A and 2B.
 - 4 kv SWGR's 33 and 34.
 - 4 kv SWGR's 33-1 and 34-1.
 - 480 V SWGR's 38 and 39.
 - 480 V MCC's 38-7 and 39-7.
 - 250 V MCC's 3A and 3B.
 - 125 V Distribution Panels 3A and 3B.

- I. Commonwealth Edison letter dated May 19, 1983, requests schedular exemptions for the following:

Modification	<u>Completion Date</u>	
	Dresden 2	Dresden 3
1. Upgrade fire doors.	4/01/84	4/01/84
2. Local control and isolation of service water pumps at switchgear.	2/01/84	2/01/84
3. Additional fire detection and water suppression.	9/01/84	9/01/84
4. Isolation condenser valves.	Spring 1986	Spring 1985
5. Control rod drive header cross tie piping.	Fall 1984 No exemption required	Fall 1984
6. 2/3 diesel modifications.		Spring 1985
7. Auxiliary cooling water supply to the CRD pumps.	Fall 1984	Spring 1985
8. Diesel generator #2 fuel oil transfer pump local control and isolation in diesel generator room.		Fall 1983 No exemption required
9. Local reactor pressure.	Fall 1984 No exemption required	Fall 1983

- J. P.M. indicated that a meeting is scheduled for November 10, 1983 to discuss fire protection.
- K. Licensee letter dated November 21, 1983 declared their intention to make a new Appendix R submittal.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION III

DATE May 5, 1983

REVISION DATE December 31, 1983

1. PLANT Duane Arnold TYPE BWR PWR RATING 538 MW MFG GE
2. LOCATION Cedar Rapids, IA COMMERCIAL OPERATING DATE 2/1/75
3. LICENSEE Iowa Electric Light and Power Co.
4. DOCKET NO. 50-331 5. APPENDIX R - SUBMITTAL DATE: *
*6/79, 6/5/80, 7/3/80, 3/19/81, 6/22/82.
6. SAFETY EVALUATION REPORT (SER) DATE (not at BNL)
January 16, 1983 (revision)
OR EXEMPTION REQUEST DENIAL DATE 12/28/82
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS End of RFO #8, December 1984
(about Mar. 1985) (revision)
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room complex,
the HVAC heat exchanger and chiller area and the control building HVAC
room.
 - A. On November 3, 1982, an internal NRC memorandum was issued which stated that the safe shutdown capability for Duane Arnold was in accordance with Appendix R III.G.3 and III.L requirements.
 - B. The alternative safe shutdown system consists of selected division 2 circuits/equipment being isolated and operated on a local basis.
 - C. On December 26, 1982, a draft SER was sent to the licensee which provided information relative to exemption request denials. At that time the licensee was informed about their right of appeal.
 - D. On April 5, 1983, an internal NRC memorandum was issued which granted five exemption requests related to fire protection concerns, i.e., fire suppression and fire barrier separation.

- E. On April 26, 1983, the NRC notified the licensee that exemption requests from the requirements of Section III.G for the reactor building torus area, north and south CRD module areas, reactor building RHR valve rooms, control room, lower switchgear room, battery rooms, and essential switchgear rooms were granted. The licensee originally requested exemptions for 31 fire areas.
- F. The modification completion date is March 1985, based on 10 CFR 50.48(C)4.
- G. NRC internal memorandum dated November 3, 1982 related to SER which concludes that the safe shutdown capability for Duane Arnold was in accordance with Appendix R III G. 3 and III.L requirements.
- H. 12/8/83, P.M. indicated that SER was issued January 16, 1983. The licensee schedule for completion of the alternate shutdown modifications is at the end of RFO #8 starting December 1984.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION III

DATE May 5, 1983

REVISION DATE December 31, 1983

1. PLANT Kewaunee TYPE PWR PWR RATING 535 MW MFG WX

2. LOCATION Manitowac, WI COMMERCIAL OPERATING DATE 1974

3. LICENSEE Wisconsin Public Service Corporation

4. DOCKET NO. 50-305 5. APPENDIX R - SUBMITTAL DATE: 4/9/81, 5/19/81, 6/26/81

6. SAFETY EVALUATION REPORT (SER) DATE 12/27/81 (SER)
OR EXEMPTION REQUEST DENIAL DATE N.A.

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS 8/84 SEE Section F

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room

A. The licensee plans to use two existing independent trains of safety systems to effect safe shutdown. The "B" train which is controlled from the control room is designated as the "alternate." The "A" train along with a new control center constitutes the "dedicated" system.

B. Fire barriers and cable relocation are necessary in order to protect some cable runs.

C. An SER was issued by NRC on December 27, 1981 which stated that NRC (DSI) concluded that the proposed design for the facility complies with the requirements of Appendix R III.G.3 and III.6 with the following exceptions:

1. Require a source range flux monitoring instrument to be added to the new instrumentation panel.
2. Require cold leg or average reactor coolant temperature to be added to the new instrumentation panel.

3. Require direct reading of both the condensate storage tank and refueling water storage tank levels, either locally or remotely, away from the control room and related fire areas of the safe shutdown system described as "alternate" by WPSC.
- D. The SER stipulates that the modification should be completed under scheduling requirements of 50.48(d)(3). This regulation requires implementation before startup after the earliest of the following events commencing nine months or more after the date of the NRC SER.
 1. The first refueling outage
 2. Another planned outage that lasts for at least 60 days, or
 3. An unplanned outage that lasts for at least 120 days.

This plant should be ready for inspection by Aug. 1984 (revised).

- E. The P.M. indicated that the new panel will be installed during the spring of 1983 (outage March 1983-May 1983).
- F. Wisconsin Public Service Corporation letter dated September 7, 1983 provided an update of the 10 CFR 50 Appendix R implementation schedule which was sent to NRC on August 4, 1982, and requested an additional extension for the final implementation of Section III.G of Appendix R in accordance with 10 CFR 50.12.

The licensee acknowledged the receipt of an extension for completion of the modifications from the spring 1983 refueling outage to the spring 1984 refueling outage.

The licensee has determined that the extensive impact of this work on plant operations and the numerous unexpected implementation problems provide further justification for an additional schedular extension.

The licensee requested an additional exemption from the requirements of 10 CFR 50.48 (c)(3) such that the implementation schedule for the proposed modifications to satisfy item III.G of Appendix R to 10 CFR 50 be extended three (3) years until the end of the scheduled 1987 refueling outage.

- G. NRC - Summary of meeting with staff and WPS Corporation dated September 16, 1983 regards the status of Appendix R status. WPS indicated that scope of work was of a magnitude which required schedular exemption in order to have adequate time to complete the modifications.
- H. December 8, 1983, P.M. called and indicated that status was unclear (see F); no final action on schedular exemption request to complete modifications by end of 1987 RFO.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION III

DATE May 5, 1983

REVISION DATE December 31, 1983

1. PLANT LaCrosse TYPE BWR PWR RATING 48 MW MFG A-C
2. LOCATION LaCrosse, WI COMMERCIAL OPERATING DATE 1969
3. LICENSEE Dairyland Power Cooperative
4. DOCKET NO. 50-409 5. APPENDIX R - SUBMITTAL DATE: 3/19/81
9/28/82
6. SAFETY EVALUATION REPORT (SER) DATE None
OR EXEMPTION REQUEST DENIAL DATE 12/28/82
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room, electrical equipment room and electrical penetration room.
 - A. The licensee did not propose any new alternative shutdown methods or modifications to existing alternate shutdown capabilities.
 - B. On October 14, 1982, the NRC (DSI) issued an internal memorandum which concluded that the LaCrosse safe shutdown capability was in accordance with Appendix R III.G.3 and III.L requirements.
 - C. On December 28, 1982, an internal memorandum was issued by Materials and Qualification Engineering which acknowledged that they were reviewing the licensee's additional information relating to eight open items. In addition, actions on four exemption requests were taken as follows: one exemption request for relief from installation of area wide fire suppression and the separation of redundant shutdown systems by a 1-h fire rated barrier was granted. One exemption request for the containment building was denied. Two other exemption requests were considered unnecessary.

- D. On February 23, 1983, the licensee agreed by letter to install key lock switches, provide 1-hr fire protection for one train of the shutdown condenser, scram circuits, and both trains of MDS valve circuits in the electrical penetration area outside containment.
- E. On March 30, 1983, a supplementary safety evaluation which stated that eight of the open items were closed and that the remaining open item will be the subject of a subsequent SER.
- F. On March 24, 1983, the NRC memo from Tom Wambach indicated that a SER from CMEB was to have been issued May 1983.
- G. The modification completion date cannot be established since no final SER from the Division of Licensing has been issued.
- H. NRC internal memorandum dated October 31, 1983 grants two exemption requests and determined that two were not required.
- I. On November 22, 1983, P.M. indicated that SER should be issued about the end of December 1983. The next RFO: 1984 or early 1985.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 3

REGION III

DATE May 6, 1983/May 13, 1983

REVISION DATE December 31, 1983

1. PLANT Monticello TYPE BWR PWR RATING 536 MW MFG GE
2. LOCATION Minneapolis, MN COMMERCIAL OPERATING DATE 1971
3. LICENSEE Northern States Power Company
4. DOCKET NO. 50-263 5. APPENDIX R - SUBMITTAL DATE: 6/30/82
6. SAFETY EVALUATION REPORT (SER) DATE None
OR EXEMPTION REQUEST DENIAL DATE 6/16/83 (revision)
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND None proposed - 6/30/82
 - A. On December 28, 1982, an NRC memorandum was issued by MQE which granted one exemption request relative to fire protection for the suppression pool area. At the same time, three other exemption requests were denied, namely: structural steel in six areas, intake structure, and control room. In addition, nine open items remained from the fire protection SER.
 - B. A draft SER was sent to the licensee on January 12, 1982 and notification of the appeal process was included. The draft SER requires that alternative shutdown capability, which is electrically isolated from the control room should be provided by the licensee.
 - C. On February 8, 1983, the licensee submitted supplemental information in support of request for exemption from the scheduler requirements of 10 CFR 50.48. They mention scope of work and problems in completing reroute of cable, procurement and delivery of material and equipment, and coordination of work force. In conclusion, the licensee requested scheduler exemptions to:

1. Implement modifications which do not require prior NRC approval or plant shutdown be extended from nine months after June 1, 1982 to December 1, 1983.
 2. Implement modifications which do not require prior NRC approval, but require plant shutdown, be extended from before startup after the first refueling or extended outage commencing 180 days or more after June 1, 1982, to before a startup after the first refueling outage commencing in 1985. (Previously scheduled for January 1985, now delayed until June 1985.)
- D. NRC internal memorandum from Tom Wambach dated March 24, 1983 stated: "a meeting was held March 8, 1983; submittal of resolution was due April 5, 1983; CMEB SER was due to be issued May 10, 1983."
- E. Northern States Power (NSP) by letter dated April 5, 1983 submitted an exemption request from the requirements of 10 CFR 50.48, Paragraph (b) from installing a fixed suppression system in the control room.
- F. The licensee by letter dated April 22, 1983 requests exemption from the scheduler requirements of 10 CFR 50.48 due to the complexities involved in rerouting 240 cables. They requested an exemption in schedule to the end of the 1985 refueling outage, additional items of concern were the newly required alternate shutdown panel which is to be installed with the cable spreading room reroute.
- G. NSP by letter dated June 7, 1983 provided additional information in order to clarify their intended and completed actions in resolving open items relative to the following:
- Fire barrier penetration seals.
 - Fuses and battery room.
 - Fire pump.
 - Administrative controls/procedures.
- H. NRC letter to Northern States Power dated June 15, 1983 which denied exemption requests for the intake structure pump room, structural steel (all areas), and the control room. It was acknowledged that the licensee had agreed to withdraw exemption request for structural steel in the RCIC room.
- Conform to the requirements of the role for structural steel in the battery room.
 - Provide alternative shutdown capability for the control room and cable spreading room.

The modifications for alternative shutdown capability for the control room should be submitted to the NRC by December 16, 1983.

- I. NRC internal memorandum dated June 24, 1983 states that exemption was granted from the requirements of Section III.G.2 to the extent that no automatic suppression system is required for the suppression pool area (fire zone 1F).
- J. NRC in a letter dated September 21, 1983 grants scheduler exemptions as follows:
 - Installation of modifications that do not require NRC prior approval or plant shutdown - completion date extended from March 1983 to December 1983.
 - Installation of modifications that do not require NRC prior approval but require plant shutdown - date extended from before startup after the first refueling or extended outage commencing 180 days or more after June 1, 1982 to before startup of cycle 12 (December 1985).
- K. The modification completion date cannot be established since this plant has had exemption requests denied and no final SER from the Division of Licensing has been issued.
- L. NRC internal memorandum dated October 28, 1983 relates to Licensee's proposals for 7 open items are considered to be in compliance with the guidelines contained in Appendix A to BTP APCSB 9.5-1 and the requirements of Appendix R to 10CFR50.
- M. P.M. indicated that alternative shutdown proposal was due December 1983 for NRC approval.
- N. December 16, 1983 - Licensee submitted new alternative shutdown proposal.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION III DATE May 5, 1983
REVISION DATE December 31, 1983

1. PLANT Palisades TYPE PWR PWR RATING 798 MW MFG C-E

2. LOCATION Kalamazoo, MI COMMERCIAL OPERATING DATE 1973

3. LICENSEE Consumers Power Company

4. DOCKET NO. 50-255 5. APPENDIX R - SUBMITTAL DATE: *

*3/19/81, 2/16/82, 5/19/81, 7/1/82, 10/25/82, 10/ /82.

6. SAFETY EVALUATION REPORT (SER) DATE May 26, 1983 (revision)
OR EXEMPTION REQUEST DENIAL DATE N.A.

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS End of next RFO-1985 or 1986
All mods., with the exception
of source range and steam pressure read-
out should be completed 10/84 (revision)

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room, cable
spreading room, engineered safeguards panel room, corridor between the
charging pump room and switchgear room 1-C, and auxiliary shutdown
control panel area.

A. On December 16, 1982, an internal memorandum was issued which related to the SER for Palisades. The memorandum states that DSI has concluded that the Palisades plant was in compliance with the requirements of Appendix R, III.G.3 and III.L except for the following:

1. Licensee must provide steam generator pressure indication in the event of fire in the above areas.
2. The licensee must verify that certain proposed actions which require the removal of dc power meet or will be modified to meet Appendix R requirements concerning repair or provide an exemption request for Appendix R.

- B. On February 8, 1983, a letter was sent to Consumers Power Co. which granted an exemption request for fixed suppression system in the control room.
- C. Modifications should be completed by end of next RFO-1985 or 1986 based on 50.48(c)(4).
- D. Consumer Power Company letter dated April 14, 1983 stated that steam generator pressure will be installed on the auxiliary shutdown panel. A scheduler exemption was requested to allow completion of the above modification during the 1985 refueling outage.
- E. Inspection was scheduled for February 20, 1984 but was cancelled.
- F. Consumer Power Company letter dated August 29, 1983 endeavors to make a distinction between the provisions of Section III.L being required or a guideline.
- G. 10/28/83: P.M. indicated inspection is possible with the understanding that procedures, steam pressure and source range monitoring capability will not be available for alternate shutdown.
- H. December 1, 1983 - P.M. indicated long outage due to steam generator problems. Licensee expects to be ready for Appendix R October 1984, with the exception source range and steam generator pressure (see C).

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 3

REGION III

DATE May 9, 1983/May 13, 1983

REVISION DATE December 31, 1983

1. PLANT Point Beach 1/2 TYPE PWR PWR RATING 497 MW MFG WX

2. LOCATION Manitowoc, WI COMMERCIAL OPERATING DATE Unit 1-12/21/70
Unit 2-10/1/72

3. LICENSEE Wisconsin Electric Power and Wisconsin Michigan Power

4. DOCKET NO. 50-266, 50-301 5. APPENDIX R - SUBMITTAL DATE: 3/31/82

6. SAFETY EVALUATION REPORT (SER) DATE None
OR EXEMPTION REQUEST DENIAL DATE Draft SER - 1/14/83 & 7/28/83 (revision)

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS Unit 1 - Fall of 1985 RFO
(Licensee) (see "L").

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND None proposed

- A. On October 6, 1982, DSI notified DL that the licensee had not proposed any modifications which constituted alternative or dedicated shutdown capability. DSI will review if exemption requests are denied.
- B. On January 14, 1983, the licensee was notified in a draft SER, that 10 of 12 exemption requests were denied and two were granted. These exemption requests were fire protection related from Section III.G of Appendix R. Exemption requests were granted for the control room and the hydrogen piping in areas containing safety related equipment.

Exemption requests were denied for the following areas:

1. Unit 1 motor control center room.
2. Safety injection, containment spray.
3. Component cooling water pump room.
4. Unit 2 motor control center room.
5. Auxiliary feedwater pump room.

6. 4160 V switchgear room.
7. Monitor tank room.
8. Cable spreading room.
9. Unit 1 containment, southeast quadrant.
10. Unit 2 containment, southeast quadrant.

The right of appeal and the process was transmitted to the licensee.

- C. The licensee submitted to NRC their comments on the draft SER on February 25, 1983.
- D. On April 20, 1983, the licensee notified NRC by letter that agreements reached at both the March 22, 1983 meeting and the subsequent telephone calls will be submitted early in the week of April 25, 1983, but no later than April 28, 1983.
- E. NRC internal memorandum dated March 24, 1983 appeal/resolution meeting was held March 22, 1983; submittal of resolution April 19, 1983; CMEB SER should be issued June 4, 1983 (see C).
- F. Wisconsin Electric letter dated April 28, 1983 provided supplemental information regarding revisions to the scopes of requested exemptions and proposed modifications as the result of a meeting with the staff on March 22, 1983. The licensee expected to submit a detailed description of modifications which require plant shutdown by October 27, 1983.
- G. NRC internal memorandum dated April 29, 1983 granted an exemption from the requirements of Section III.G of Appendix R to the extent that it requires a fixed suppression system in the control room.
- H. Wisconsin Electrical letter dated May 31, 1983, stated that the Licensee proposes to install an enlarged independent Halon suppression system for all cabinet sections Unit 2 switchgear cabinets A05 and A06 (4160V).
- I. NRC CMEB internal memorandum dated July 28, 1983 stated that of 11 exemption requests, 1 was denied, 5 granted and 5 were under review.
- J. Wisconsin Electric letter dated August 9, 1983 licensee proposed to meet with staff on August 26, 1983 at which time the approach and methodology for providing alternate indication for instruments which the staff considered to be necessary for alternative shutdown would be presented.

- K. The modification completion date cannot be established since this plant has had exemption requests denied and no final SER from the Division of Licensing has been issued.
- L. Licensee letter dated October 26, 1983 related to Appendix R exemption requests for Units 1 and 2. Licensee estimated the Unit 1 completion date to be during the fall of 1985 refueling outage.
- M. December 12, 1983 - P.M. indicated that SER may be issued in February or March of 1984.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION III

DATE May 5, 1983/May 13, 1983

REVISION DATE December 31, 1983

1. PLANT Prairie Island 1/2 TYPE PWR PWR RATING 530 MW MFG WX
2. LOCATION Minneapolis, MN COMMERCIAL OPERATING DATE Unit 1 - 1973
Unit 2 - 1974
3. LICENSEE Northern States Power Co.
4. DOCKET NO. 50-282, 50-306 5. APPENDIX R - SUBMITTAL DATE: 12/18/81
6. SAFETY EVALUATION REPORT (SER) DATE May 4, 1983 (revised)
OR EXEMPTION REQUEST DENIAL DATE 5/4/83
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS February 1984 (revision)
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room, cable
spreading room, and the relay room.
 - A. On December 28, 1982, the NRC/MQE issued an internal memorandum which granted five exemption requests and denied four of a total of 9. Those which were granted are as follows:
 1. Train A - hot shutdown panel, instrument air, and auxiliary feed-water pump room (fire area 31).
 2. Train B - hot shutdown panel, instrument air, and auxiliary feed-water pump room (fire area 32).
 3. Normal switchgear room Unit 1 (fire area 37).
 4. Auxiliary building operating level Unit 1 (fire area 60).
 5. Auxiliary building operating level Unit 2 (fire area 75).

Those which were recommended to be denied were:

1. Auxiliary building ground floor level, Unit 1 (fire area 58).
 2. Auxiliary building mezzanine level, Unit 1 (fire area 59).
 3. Auxiliary building ground floor level, Unit 2 (fire area 73).
 4. Auxiliary building mezzanine level, Unit 2 (fire area 74).
- B. The above information was transmitted to the licensee on January 4, 1983 via a draft SER. The licensee was given time to appeal.
- C. On December 6, 1982, the licensee requested an exemption from the requirement for fixed fire suppression in the control room. This request was granted by NRC on February 2, 1983.
- D. Four exemption requests were in the appeal process as of Feb. 2, 1983.
- E. On December 23, 1982, the DSI notified the DL that they could not safely conclude that the licensee is in compliance with Appendix R requirements. The licensee had not committed to provide the following:
1. Steam generator pressure
 2. Pressurizer pressure
 3. System flows
 4. Tank levels.
- F. NRC internal memorandum from Tom Wambach dated March 24, 1983 stated: "resolution apparently reached; licensee's submittal dated March 11, 1983 under review; CMEB SER should be issued April 22, 1983."
- G. An SER was issued on May 4, 1983 which notified the licensee that five exemption requests were granted and four denied (see A). The applicable implementation schedule is as specified in 10 CFR 50.48(c)(6) for all exemption requests and the tolling period was terminated.
- H. Northern States Power letter dated May 16, 1983 provided clarifying information in support of exemption requests for fire areas Nos. 58, 59, 73 & 74.
- I. NSP letter dated September 2, 1983 commits to the installation of a 1 hour wrap for train "A" safe shutdown cables in fire area 58 and fire area 73.
- J. The mod. completion date based on 10CFR50.48 (c)(6) is 02/84.
- K. December 12, 1983 - P.M. indicated that exemption requests are granted and exemption should be issued early in 1984.
- L. NRC letter to Licensee stated that 4 exemption requests were granted.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 3

REGION III

DATE May 9, 1983

REVISION DATE December 31, 1983

1. PLANT Quad Cities 1/2 TYPE BWR PWR RATING 789 MW MFG GE
2. LOCATION Moline, IL COMMERCIAL OPERATING DATE Unit 1 - 8/72
Unit 2 - 10/72
3. LICENSEE Commonwealth Edison
4. DOCKET NO. 50-254, 50-265 5. APPENDIX R - SUBMITTAL DATE: *
*7/31/78, 10/1/79, 1/23/80, 2/29/80, 5/19/81, 8/31/81, 1/20/82,
3/10/82, 5/18/82, 6/82, 7/1/82.
6. SAFETY EVALUATION REPORT (SER) DATE No SER
OR EXEMPTION REQUEST DENIAL DATE N.A.
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND See Item A
 - A. The licensee identified 51 fire areas for the two units. In 13 areas no alternative shutdown is proposed by the licensee. In 11 areas the RCIC system will be used. In 24 areas a new safe shutdown makeup pump in conjunction with existing equipment will be used. In three areas, both the RCIC system and new safe shutdown makeup pump will be used for shutdown of each unit.
 - B. On October 30, 1982, an internal memorandum was issued by DSI to DL which indicated that it was concluded that Quad Cities, Units 1 & 2 complies with Appendix R, Section III.G.3 and III.L requirements. There is the requirement that the licensee propose technical specifications governing operability of the new shutdown makeup pump comparable to those currently existing for the reactor core isolation cooling pump.

- C. On December 29, 1982, the MQEB informed DL that Quad Cities was granted exemption requests for seven areas from the technical requirements of Section III.G of Appendix R.
- D. Commonwealth Edison by letter dated May 18, 1983 submits schedular exemption requests as follows:

Modification	<u>Completion Date</u>	
	Quad Cities 1	Quad Cities 2
1. Fire doors	4/01/84	4/01/84
2. Additional fire detection and water suppression.	12/01/84	12/01/84
3. Replace existing barrier between 480 VAC switchgear with seismic fire barrier.	2/01/84	2/01/84
4. Alternate feeds to diesel generators 1/2 aux. equip.	Fall Outage 1985	Spring Outage 1985
5. Alternate feeds to diesel generators 1/2 cooling water pump cubicle coolers.	Fall Outage 1985	Fall Outage 1985
6. Fire protection of 4 KV switchgear.	9/01/84	7/01/85
7. Fire protection of 125 VDC Control Power to 4 KV switchgear and 4 KV bus duct.	Fall Outage 1985	Spring Outage 1985
8. RCIC steam supply valve Local control capability.	Spring Outage 1984 No exemption required for Unit 1.	Spring Outage 1985
9. RHR pump cable rerouting and fire protection.	Spring Outage 1984 No exemption required for Unit 1.	Spring Outage 1985

Modification	<u>Completion Date</u>	
	Quad Cities 1	Quad Cities 2
10. Alternate feeds to RHR room coolers.	Spring Outage 1984 No exemption required for Unit 1.	Spring Outage 1985
11. Install safe shutdown system.	Fall Outage 1985	Spring Outage 1985
12. Diesel generator 1/2 cooling water pump isolation capability.	Spring Outage 1985	Spring Outage 1985

No exemption was required for the following:

13. Diesel generator 1/2 vent fan isolation.	Fall Outage 1983	Fall Outage 1983
--	---------------------	---------------------

- E. NRC internal memo dated June 27, 1983 highlights the granting of 11 exemption requests pertaining to fire protection of safe shutdown capability. 9 of the exemptions concern requirements for fixed fire suppression for all control room panels and for switchgear and reactor control centers in certain fire areas. Two exemptions are from requirements for three hour fire barriers in certain fire areas.
- F. No modification date can be established until final SER is issued by the Division of Licensing.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION III

DATE April 21, 1983

REVISION DATE December 31, 1983

1. PLANT Zion 1/2 TYPE PWR PWR RATING 1040 MW MFG WX
2. LOCATION Waukegan IL COMMERCIAL OPERATING DATE Unit 1 - 1973
Unit 2 - 1974
3. LICENSEE Commonwealth Edison
4. DOCKET NO. 50-295, 50-304 5. APPENDIX R - SUBMITTAL DATE: 6/7/82
7/2/82
6. SAFETY EVALUATION REPORT (SER) DATE 3/17/83 and 1/21/83
OR EXEMPTION REQUEST DENIAL DATE N.A.
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS Unit 1-12/83, Unit 2-6/84
Licensee intends to make a new Appendix R submittal.
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Main control room and
cable spreading room for Units 1 and 2.
 - A. The SER dated March 17, 1983 states that NRC has reviewed the submittal's for Units 1 & 2 and concluded that Zion, Units 1 & 2 are in compliance with Appendix R.
 - B. SER dated March 7, 1983 grants exemptions from the requirements of Appendix R for six areas:
 1. Crib house outer room (fire area 18.4 A-0).
 2. Crib house inner room (fire area 18.4 B-0).
 3. Auxiliary building, elevation 560 ft (fire area 11.2-0).
 4. Auxiliary building, elevation 519 ft (fire area 11.3-0).
 5. Auxiliary building, elevation 592 ft (fire area 11.4-0).
 6. Auxiliary building, elevation 617 ft (fire area 11.5-0).
 - C. Commonwealth Edison by letter of February 25, 1983, committed to installation of (1) source range neutron flux monitoring capability and (2) cold leg temperature (or tave) monitoring capability at the remote shutdown stations for Units 1 and 2.

- D. The type of modifications which were proposed for compliance with Appendix R included administrative procedures which included manual actions, rerouting of cables for power, controls and instrumentation, installation of isolation switches (from control room and cable spreading room) at switchgear and remote control panels, install fire rated barriers, installation of mechanical instrumentation.
- E. The modifications should be completed by June 1984, based on application of 50.48(c)(4):
 - Zion 1 - refueling outage ends November 1983.
 - Zion 2 - refueling outage ends May 1984.
- F. Inspection of Zion 1/2 was scheduled for June 25, 1984.
- G. In a letter dated November 21, 1983, the Licensee requested exemption to allow start up. Licensee wanted to make submittal in June of 1984 to outline new Appendix R.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 3

REGION IV

DATE May 9, 1983

REVISION DATE December 31, 1983

1. PLANT Arkansas 1 TYPE PWR PWR RATING 836 MW MFG J&W
2. LOCATION Russelville, AR COMMERCIAL OPERATING DATE 12/74
3. LICENSEE Arkansas Power and Light
4. DOCKET NO. 50-313 5. APPENDIX R - SUBMITTAL DATE: 7/1/82
7/29/82
10/5/82
6. SAFETY EVALUATION REPORT (SER) DATE May 13, 1983 per P.M. (revised)
OR EXEMPTION REQUEST DENIAL DATE 2/2/83 - now all exemption requirements
approved.
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS Jan. 1985 (see M) (revision)
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room, cable
spreading room.
 - A. The licensee by letter dated July 1, 1982, had made exemption requests for 10 areas for fire protection concerns. At that time, six were granted and four were denied.
 - B. On December 8, 1982, a draft SER was sent to the licensee which informed them about the above action and clarified the difference between a "fire zone" and a "fire area". In addition, the licensee was notified that NRC concluded that Arkansas I Unit 1 was in accordance with Appendix R, Sections III.G.3 and III.L subject to the requirements that:
 - i. A source range neutron flux monitoring capability electrically independent of the control room be provided at the safety parameter display system.

2. Capability to achieve cold shutdown within 72 hours be provided, in order to comply with III.G.3 and III.L.
- C. On January 6, 1983, NRC issued an internal memorandum for the purpose of notifying R. J. Mattson that AP&L requested an appeal meeting for January 28, 1983 relative to the above Sections III.G.3 and III.L concerns.
- D. By letter on February 2, 1983, MQEB issued a memorandum which indicated that the licensee had provided new proposals and clarifying information on November 11, 1982. The exemption requests to meet III.G.2 were now for nine areas and the NRC granted eight and one was not needed. The areas for which exemptions were granted were:
 1. Intake structure
 2. Yard area manholes (1 MH04 and 1MH06)
 3. Make up pump room and adjacent corridor (fire zone 10Y)
 4. Lower north piping penetration area (fire zone 53Y)
 5. Yard area manholes (1MH09 and 1MH10).
- E. By memorandum dated February 25, 1983 by DSI to DL, which stated that the issue dealing with the ability to achieve cold shutdown within 72 hours for Unit 1 has been resolved. The source range neutron flux item remained open.
- F. Daily highlight dated March 23, 1983, DL stated that the commission had issued 11 exemptions for Unit 1 and 18 for Unit 2 on certain requirements of Appendix R to 10 CFR 50 for ANO-1; all exemption requests have been granted.
- G. P.M. indicated that a draft SER was issued to licensee on May 12, 1982 and the next refueling outages will occur in late 1984 and in the middle of 1986.
- H. NRC by letter dated May 11, 1983 notified AP&L that the requested exemption to Appendix R, III.L for the requirement that the plant be capable of achieving cold shutdown within 72 hours without the use of offsite power was granted. Arkansas 1 was allowed 140 hours to achieve cold shutdown conditions.
- I. P.M. indicated that the licensee had made a number of schedular exemption requests. (Reference letters from the licensee dated March 23, 1983 and March 29, 1983.)

- J. Arkansas Power & Light Co. letter dated June 3, 1983 provides background information relative to the installation of source range monitoring capability for the alternative shutdown system. The licensee proposed to provide final design information by August 1, 1983 and to complete the modification simultaneously with the alternative shutdown system during the sixth refueling outage which is scheduled for late 1984.
- K. Arkansas Power & Light Co. letter dated June 8, 1983 relates to a schedular exemption request for one hour fire barriers. APL Co. indicates that the barriers were installed approximately April 22, 1983.
- L. NRC letter dated June 17, 1983 incorporated a request for more specific and detailed information relative to exemption requests which were addressed in Licensee letter dated March 28, 1983. These exemption requests related to the schedule of 10 CFR 50.48(C) for all barriers and all penetrations thereto and all suppression/detection systems.
- M. Schedular exemption requests are being reviewed by the Division of Licensing. Modification completion date should be end of next RFO in 1984 for Unit 1 (January 1985), based on the application of 10 CFR 50.48(C)4.
- N. On 12/1/83, P.M. indicated that the Licensee has unresolved schedular exemption requests and additional exemption requests relative to barriers, detection and suppression systems. He indicated that this plant is not ready for inspection.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION IV

DATE May 9, 1983

REVISION DATE December 31, 1983

1. PLANT Arkansas 2 TYPE PWR PWR RATING 858 MW MFG C-E
 2. LOCATION Russelville, AR COMMERCIAL OPERATING DATE 3/80
 3. LICENSEE Arkansas Power and Light
 4. DOCKET NO. 50-368 5. APPENDIX R - SUBMITTAL DATE: 7/1/82
 6. SAFETY EVALUATION REPORT (SER) DATE None
OR EXEMPTION REQUEST DENIAL DATE 2/1/83 - now all exemption requests
approved.
 7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None
 8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND None
 - A. By memorandum dated October 29, 1982, MQEB stated that four exemption requests were granted and seven were denied. These exemptions were originally requested in the July 1, 1982 submittal.
 - B. By letter dated November 11, 1983 provided new proposals and additional clarifying information regarding the exemption requests previously denied. As of February 1, 1983, based on MQE's evaluation, exemption requests should be granted for the following areas:
 1. Intake structure - elevation 354 and 366 ft
 2. Yard area manholes (2MH01E, 2MH02E, and 2MH03E)
 3. Lower south piping penetration area (fire zone 2055JJ)
 4. Tank rooms, pump rooms, and corridors, elevation 355 ft (fire zone 2040JJ).
 5. Fixed fire suppression for eight areas.
- The licensee subsequently withdrew exemption requests for the following areas:
1. General access area, elevation 317 ft (fire zone 2006LL)
 2. East pump area elevation 317 ft (fire zone 1007LL).

- C. On February 25, 1983, in a memorandum from DSI to DL, it was stated that the licensee had not committed to provide source range neutron flux monitoring and that this remained an open item.
- D. On March 23, 1983, a daily highlight was issued which stated that the commission had issued 18 exemptions to certain requirements of Appendix R (clarification required).
- E. P.M. indicated that a draft SER was issued to the licensee on May 12, 1983 and that the next refueling outages will take place early in 1984 and late in 1985.
- F. P.M. indicated that the licensee has made a number of schedular exemption requests.
- G. Arkansas Power & Light letter dated June 3, 1983 agreed to install source range monitoring capability for alternate shutdown system. The modification is expected to be completed during the third refueling outage which is scheduled for late 1983.
- H. Arkansas Power & Light letter dated June 8, 1983 which notified NRC that one hour fire barriers, for which a schedular exemption was requested to May 1, 1983, were installed approximately April 22, 1983.
- I. NRC letter to AP&L dated June 21, 1983 requested additional information relative to five open items associated with their fire protection program.
- J. AP&L letter dated July 29, 1983 responded to the NRC June 21, 1983 letter relating to the proposed license amendment concerning fire protection.
- K. No modification date can be established until final SER is issued by the Division of Licensing.
- L. NRC letter of November 1, 1983 notified the Licensee that schedular exemptions were granted for the completion of switch gear modifications in fire zones 2100-Z and 2101-AA to the end of the 2R4 refueling outage, presently expected to begin in July 1985.
- M. Licensee letter dated 11/17/83 requested schedular exemption to March 30, 1984 to complete the installation of the source range monitor.
- N. 12/8/83 - P.M. indicated that Licensee is making a new Appendix R submittal which is due by the end of December 1983.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 3

REGION IV

DATE May 9, 1983

REVISION DATE December 31, 1983

1. PLANT Cooper TYPE BWR PWR RATING 778 Mw MFG GE
2. LOCATION Nebraska City, NB COMMERICAL OPERATING DATE 7/74
3. LICENSEE Nebraska Public Power District
4. DOCKET NO. 50-298 5. APPENDIX R - SUBMITTAL DATE: 3/18/81, 7/2/81, 6/28/82, 12/29/82
6. SAFETY EVALUATION REPORT (SER) DATE None
OR EXEMPTION REQUEST DENIAL DATE 12/14/82
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS Insufficient data
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Proposed pursuant to meeting of March 3, 1982, will submit in 30 days for control room and auxiliary relay room.
 - A. October 29, 1982, the DSI determined that the licensee had not proposed an alternate shutdown system.
 - B. On November 5, 1982, MQEB issued a memorandum to DL in which seven exemption requests were denied and one was granted. Exemption requests were denied for the following:
 1. Control room basement
 2. Cable spreading room and cable expansion room
 3. Auxiliary relay room
 4. Reactor building NE and NW corner rooms
 5. Three hour fire boundaries.

The service water intake structure was determined to have a level of fire protection equivalent to III.G.
 - C. On December 14, 1982 a draft SER was issued to the licensee which appraised them of their right of appeal, etc.

- D. A meeting was held with the licensee, their consultants and the NRC on March 3, 1983. Potential acceptable resolutions for various plant areas evolved based on the licensee's December 29, 1982 submittal. The areas of concern were the following:
1. Cable spreading room
 2. Cable expansion room
 3. Reactor building NE-NW corner
 4. Control room building basement
 5. Control room and auxiliary relay room
 6. Fire area boundaries.
- E. An NRC memorandum dated March 22, 1983 stated that the licensee committed to submit a letter within 30 days containing the necessary information and/or proposed modifications that provide an adequate basis for six of seven of the requested exemptions.
- F. In the appeals process, committed to submitting alternate shutdown proposal in 60 days from March 18, 1983.
- G. NRC - letter dated September 21, 1983 exemption requests were granted for the following areas:
- Service water intake structure
 - Separation of service water pumps less than 20 feet.
 - Relocate the diesel driven fire pump.
 - Cables are in conduit.
 - Cable spreading room
 - The majority of cables are in conduit.
 - Propose to install fire resisting barriers.
 - To enclose vertical cable risers and install additional automatic sprinklers.
 - Cable expansion room
 - Licensee proposes to extend the partial automatic sprinkler system to cover the entire room.
 - Reactor building, northeast corner room
 - NRC concluded that the existing projection provided a level of fire protection equivalent to the technical requirements of III.G.

- Control building basement

- Licensee has committed to protect one train of 4160 volt power feeds to the service water pumps and one train of 25 volt power feeds to the diesel generator control circuitry.

- Auxiliary relay room

- An alternate shutdown system is provided for those systems necessary to maintain safe shutdown which is independent of the auxiliary relay room. NRC granted exemption from the requirement to provide automatic suppression.

- Control room

- NRC granted exemption from the requirement to provide automatic fixed suppression in the control room.

- Fire area boundaries - four areas:

- Reactor building 932' elevation - critical switchgear rooms 1F and 1G.
- Reactor building 931' elevation.
- Reactor building 903' elevation.
- Reactor building 859' and 881' elevation.

The licensee was granted exemptions from the requirement to provide a 3 hour rated barrier at the above fire area boundaries.

The description of the modifications for alternate shutdown capability independent of the control room and the auxiliary relay room should have been submitted to the NRC within 6 months of the June 2, 1983 submittal.

- H. The modification completion date cannot be established since no final SER from the Division of Licensing has been issued.
- I. P.M., 10/21/83, still waiting for descriptions of modifications for alternate shutdown. No SER has been issued.
- J. December 8, 1983 - NRC granted all exemption requests. The Licensee was to submit their alternate safe shutdown proposal December 1983.
- K. December 2, 1983 - Licensee submitted a new alternative shutdown proposal.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION IV

DATE May 19, 1983

REVISION DATE December 31, 1983

1. PLANT Fort Calhoun 1 TYPE PWR PWR RATING 457 MW MFG C-E
2. LOCATION Omaha, NB COMMERCIAL OPERATING DATE 1973
3. LICENSEE Omaha Public Power District
4. DOCKET NO. 50-285 5. APPENDIX R - SUBMITTAL DATE: *
*10/17/79, 11/15/79, 5/25/82, 1/80, 3/80, 1/30/81, 3/27/81.
6. SAFETY EVALUATION REPORT (SER) DATE 4/8/82
OR EXEMPTION REQUEST DENIAL DATE N.A.
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS 4/83
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Cable spreading room
and control room.
 - A. SER dated April 8, 1982 which contained three open items:
 1. A source range flux monitor independent of the cable spreading room and control room should be installed on the new instrument rack.
 2. Modifications must be made to plant such that no wiring changes or pulling of fuses are necessary to achieve and maintain hot standby.
 3. Licensee must address the concerns that there could be non-safety related circuits that are associated with the alternative safe shutdown circuits that would fail due to a fire and affect safe shutdown by short circuits.

- B. An alternate shutdown panel will be located adjacent to an existing penetration room to contain the additional control and instrumentation needed to maintain hot shutdown.
- C. An internal memorandum dated February 23, 1982 was issued by DSI which concluded that the proposed Fort Calhoun design was in accordance with Appendix R with the exemption of the open items listed in A above.
- D. Most of the equipment and controls necessary to monitor and sequence the hot shutdown and then the cold shutdown functions are already available from areas outside the control room. Indicators for the primary hot leg and cold leg temperature, pressurizer level, and the volume control tank water level are to be added to the shutdown panel.
- E. IE audit completed May 16-20, 1983.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION IV

DATE May 10, 1983

REVISION DATE December 31, 1983

1. PLANT Fort St. Vrain TYPE HTGR PWR RATING 330 MW MFG GA
2. LOCATION Denver, CO COMMERCIAL OPERATING DATE 1978
3. LICENSEE Public Service Company of Colorado
4. DOCKET NO. 50-267 5. APPENDIX R - SUBMITTAL DATE: 11/20/81
6. SAFETY EVALUATION REPORT (SER) DATE None
OR EXEMPTION REQUEST DENIAL DATE N.A.
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS Ready now June 1983, no exemption requests.
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND An alternate cooling method has been installed.
 - A. On November 20, 1981, the Public Service Company of Colorado submitted a PSC response to the NRC position in regards to Appendix R. The licensee has installed fire detection and suppression (water) in congested cable areas. All cables in the congested areas are coated with "flamastic" and the three room complex is also equipped with a "halon" fire suppression system. An alternate cooling method system has been installed which has a diesel-generator as a source of electrical power to the equipment required for safe shutdown capability including emergency lighting. The ACM generator is in addition to the emergency diesel generators. Electrical cabling for this system is separate from other cabling and does not traverse the "congested cable areas." These modifications were done at the direction of the NRC.
 - B. Should be ready for inspection based on a telephone call with P.M. However, added time should be allowed for this review due to the fact it is the only HTGR.

- C. No final SER is on hand at BNL, so no official required completion date can be estimated.
- D. IE audit completed week of August 22-26, 1983.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION V

DATE May 10, 1983

REVISION DATE December 31, 1983

1. PLANT Rancho Seco TYPE PWR PWR RATING 916 MW MFG B&W
2. LOCATION Sacramento, CA COMMERCIAL OPERATING DATE 1975
3. LICENSEE Sacramento Municipal Utility District
4. DOCKET NO. 50-312 5. APPENDIX R - SUBMITTAL DATE: 3/17/81
5/28/82
6. SAFETY EVALUATION REPORT (SER) DATE _____
OR EXEMPTION REQUEST DENIAL DATE 9/19/83 (revision)
7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND None
 - A. By letter dated March 17, 1981, the licensee stated that the Rancho Seco plant required no alternative or dedicated shutdown capability.
 - B. By letter dated January 10, 1983, the NRC informed the licensee that exemption requests have been granted to the following:
 1. Waiving the requirement to install an automatic fire suppression system in the Train "A" high pressure injection pump room, the makeup pump room, the corridor to elevation 47 ft, and the west containment valve areas of the auxiliary building. In addition, an exemption was requested to remove the requirement for a 1-hr fire barrier for the Train "A" high pressure injection pump room and the makeup pump room areas of the auxiliary building.
 2. An exemption request was denied to remove the requirement for 1-hr fire barriers and an automatic fire suppression system for the computer and control room and the electrical penetration areas of the auxiliary building.

- C. In the January 10, 1983 letter, it was pointed out by the NRC that the high pressure injection pump room and makeup room entrance doors were not 3-hr fire rated.
- D. The licensee was afforded 60 days to submit additional information if they desired to pursue the exemption request for the electrical penetration area.
- E. NRC internal memorandum dated August 4, 1983 denies one exemption request relating to the one hour fire barrier requirement for the redundant cables in the emergency feedwater indication and control (EFIC) system.
- F. IE audit scheduled for September, 1984.
- G. The modification completion date cannot be established since this plant has had exemption requests denied.
- H. On September 19, 1983 NRC notified the Sacramento Municipal Utility District that they were derelict in completing the phase for the alternate shutdown capability. NRC requested responses to the generic letter 81-12 or its clarification to enable NRC to complete the review of alternate shutdown capability. SMUD also was requested to provide the schedule for installing the modifications.
- I. In October of 1983, P.M. indicated that the next RFO is scheduled for November, 1984 with a 1985 startup. He indicated that the inspection date may be somewhat premature.
- J. November 30, 1983 - The Licensee submitted their response to the clarification to General Letter 81-12. In their cover letter, a request was made to have the schedule for exemption requests and possible modifications tolled until completion of the work which was estimated to require one year. An overall plan will be completed by mid-February, 1984. The schedule for installing the alternate shutdown panels is the 1984 refueling outage which is currently scheduled to start in October, 1984.
- K. December 8, 1983 - P.M. indicated that the Licensee has committed to provide their alternative safe shutdown proposal by December 15, 1983. NRC should review in two months. Upon approval, the modifications will be completed by the end of the November 1984 RFO.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 2

REGION V

DATE May 10, 1983

REVISION DATE December 31, 1983

1. PLANT San Onofre 1 TYPE PWR PWR RATING 430 MW MFG WX
2. LOCATION San Clemente, CA COMMERCIAL OPERATING DATE 1967
3. LICENSEE Southern California Edison
and the San Diego Gas and Electric Co.
4. DOCKET NO. 50-206 5. APPENDIX R - SUBMITTAL DATE: 6/30/82
6. SAFETY EVALUATION REPORT (SER) DATE 11/18/82*
OR EXEMPTION REQUEST DENIAL DATE N.A.

*License has been advised to compute from 10/31/83.

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS End of refueling outage
which starts after 4/30/84
8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room, cable
spreading room and 4160 V switchgear room.
 - A. Modifications range from rerouting cables and installing in fire barriers to the installation of a new auxiliary feedwater pump.
 - B. The licensees submittal provided a conceptual design of the alternative shutdown capability for the control room and cable spreading room.
 - C. By letter dated November 18, 1982, the NRC informed the licensee that the conceptual design of the alternative shutdown capability complied with the requirements of Section III.G and III.L of Appendix R pending resolution of NRC's concern regarding high/low pressure interfaces in the final design. NRC requested the final design and also indicated that the review of the final design will include considerations regarding the auxiliary feedwater system reliability, auxiliary feedwater initiation and flow indication, and related issues.

NRC was still reviewing the licensee's June 30, 1982 exemption request from certain implementation dates specified in 10 CFR 50.48, fire protection.

- D. Presently shutdown, earliest operation expected in the fall of 1984.
- E. December 8, 1983 - P.M. indicated that San Onofre 1 expects to start up July 1984. Modifications to comply with Appendix R will not be complete. Negotiations are in progress to establish new completion dates.

PLANT STATUS - CFR 50.48 and APPENDIX R
BREAKDOWN

Page 1 of 3

REGION V

DATE May 10, 1983

REVISION DATE December 31, 1983

1. PLANT Trojan TYPE PWR PWR RATING 1130 MW MFG WX

2. LOCATION Portland, OR COMMERCIAL OPERATING DATE 1976

3. LICENSEE Portland General Electric Co.

4. DOCKET NO. 50-344 5. APPENDIX R - SUBMITTAL DATE: *

*3/19/81, 5/5/81, 8/21/82, 3/29/82, 6/13/82, 9/21/82.

6. SAFETY EVALUATION REPORT (SER) DATE None
OR EXEMPTION REQUEST DENIAL DATE 12/14/82*

*Exemption request of requirement for 1-hr fire barrier, an automatic fire suppression system, and total area automatic fire detection for fuel and auxiliary building, elevation 45 ft was denied.

7. ESTIMATED DATE OF COMPLETION OF MODIFICATIONS None

8. ALTERNATIVE SAFE SHUTDOWN (ASD) PROVIDED AROUND Control room, intake structure and manholes NM-3 and MN-4.

A. On May 4, 1982, DSI terminated the review for alternative safe shutdown at Trojan. The licensee did not propose plant modifications to meet III.G.3.

B. On May 26, 1982, MQEB issued a memorandum which stated that the exemption requests from providing the exact requirements of Appendix R, for the main control room, the cable penetration area outside of containment and manholes 3 and 4 were granted. It was determined that in the intake structure (23-ft level) and auxiliary and fuel building (45-ft level) an adequate degree of protection for the safe shutdown systems had not been provided and the exemption requests were denied.

- C. On September 21, 1982, additional information was provided by the licensee to support exemption requests for the intake structure, manholes NM-3 and NM-4, and the 45-ft elevation of the fuel and auxiliary building.
- D. On October 15, 1982, DSI issued a memorandum which stated that the licensee had provided additional information on the alternate shutdown feature which indicates that it will be available assuming loss of offsite power. However, cold shutdown ($T_{avg} < 200^{\circ}\text{F}$) cannot be achieved within 72 hrs. NRC concluded that despite the above deficiency, the alternative shutdown capability is acceptable as a plant cooldown to the residual heat removal system initiation temperature can be accomplished within 72 hrs assuming loss of offsite power. Therefore, the exemption for the intake structure and manholes NM-3 and NM-4 was recommended to be granted.
- E. By letter to the licensee dated December 14, 1982, the following exemption requests were granted:
 - 1. III.G.2, cable penetration area - outside containment (1-hr fire barrier).
 - 2. III.G.3, intake structure (fixed fire suppression).
 - 3. III.G.3, control room (fixed fire suppression).
 - 4. III.G.3, manholes NM-3 and NM-4 (fixed fire suppression and automatic fire detection).
 - 5. III.L, alternative shutdown for the intake structure and manholes NM-3 and NM-4. (Capability to achieve cold shutdown within 72 hr.)
 - 6. III.J, emergency lighting.
- F. One exemption request was denied, i.e., III.G.2, fuel and auxiliary buildings, elevation 45 ft (1-hr fire barrier, an automatic fire suppression system, and total area automatic fire detection). These areas must meet III.G by no later than start-up for fuel cycle 6.
- G. All modifications to meet III.G should be completed by August 1983, by NRC request. However, the modification completion date cannot be established since this plant has had exemption requests denied and no final SER from the Division of Licensing has been issued.
- H. Plant inspection was scheduled for June 20, 1983.
- I. PGE letter dated April 27, 1983 provided additional information to support the exemption requests for the 45 foot elevation of the fuel and auxiliary buildings.

- J. PGE letter dated June 7, 1983 requestd a schedular exemption for the complete modifications for the 45 foot elevation of the fuel and auxiliary buildings.
- K. NRC internal memorandum dated June 22, 1983 granted one exemption to the requirement for total area automatic fire suppression in the auxiliary and fuel building (45 foot elevation).
- L. IE audit was completed the week of August 29 through September 2, 1983.