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July 11, 1984

Mr. Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Crutchfield:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Appendix R - Schedule Exemption Request

By my letter dated September 16, 1983, GPU Nuclear Corporation requested a schedule exemption from 10 CFR 50.48(C)(3) of the regulations. This request resulted in several meetings with your staff and GPUN personnel which effected a revision of our September 16 submittal. The attached replaces in its entirety our original submittal.

Revisions include (1) removal from the submittal those fire zones which are not in Appendix R non-compliance, (2) providing a specific listing of those systems powered from both off site and on site that will be affected or unaffected in each fire area/zone, and (3) providing compensatory measures that are consistent with the guidance provided by the NRC.

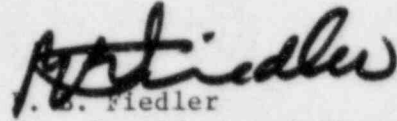
It should be noted that in the unlikely event that a fire occurs in RB-FZ-1D, TB-FZ-11B or TB-FZ-11C and the supplemental procedure for cold shutdown is in effect as discussed in Appendix A of this submittal, it will be at the discretion of the Group Shift Supervisor (GSS) as to whether the plant will be taken to cold shutdown or remain on the isolation condenser. The longterm negative effects of injecting fire water into the vessel as the interim measure for achieving cold shutdown does not outweigh the advantage of remaining on the isolation condenser until those systems normally required for cold shutdown are repaired.

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Questions concerning this submittal should be directed to Mr. Michael Laggart,
Manager - BWR Licensing, at 201-299-2341.

Very truly yours,



J. E. Fiedler
Vice President and Director
Oyster Creek

slf:0308e
Attachment

cc: Administrator
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NRC Resident Inspector
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OYSTER CREEK NUCLEAR GENERATING STATION

JUSTIFICATION FOR APPENDIX R

SCHEDULE RELIEF

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OYSTER CREEK NUCLEAR GENERATING STATION

JUSTIFICATION FOR APPENDIX R
SCHEDULE RELIEF

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1.0 INTRODUCTION

On June 30, 1982, GPU Nuclear (GPUN) submitted to the Nuclear Regulatory Commission (NRC) the Oyster Creek Nuclear Generating Station (OCNGS) Appendix R Fire Evaluation Report (Reference 1). The subject report documented the results of an assessment of the fire protection features at OCNGS for conformance to the requirements of Appendix R to 10CFR50 and included recommended modifications to meet the requirements. It should be noted that during this evaluation the exact locations of certain shutdown cables could not be determined. Thus specific recommendations could not be made for these cases. GPUN has recently determined, during this current plant outage, the exact locations of the remaining circuits using the audible signal testing and visual verification methods and revised the June 30, 1982 submittal to designate the specific modifications and accompanying exemption requests required to achieve compliance with Appendix R.

Also included with the June 30, 1982 submittal was a schedule for completing the modifications required to bring the plant in compliance with the requirements of Appendix R. The proposed schedule required more time than the provisions permitted by 10CFR50.48 primarily due to the fact that exact locations of shutdown circuits had to be determined before specific modifications could be proposed, approved and implemented.

On 2/16/83, the NRC indicated that in order that schedule relief be granted, justification must be provided that will ensure safe plant operation during the exemption period. It is the purpose of this report to provide this justification. Sections 2.0 and 3.0 of this report provide the justification for each fire area/zone not in compliance with the Appendix R requirements as indicated in our submittal of June 30, 1982. Sections 4.0 and 5.0 provide the rationale for our inability to meet Appendix R Schedule requirements.

2.0 FIRE PROTECTION SYSTEM AND PROGRAM ADEQUACY

GPU Nuclear believes the current fire protection system and program as well as emergency procedures in place at Oyster Creek provides reasonable assurance that a fire anywhere in the plant will not prevent the plant from achieving hot and cold shutdown. The reasons for this are twofold:

- A. A recent NRC safety inspection conducted by Mr. A. E. Finkel (Reference Letter dated May 20, 1982, Subject: Inspection No. 50-219/82-07) attested to the adequacy of the plant fire protection program with respect to Administrative Controls, Fire Operating Procedures, Fire Brigade Training and Drills, Qualified Fire Brigade Personnel and Fire Protection Modifications to the plant. No violations were found.

- B. The analysis that follows later in this report, Appendix A, provides reasonable assurance that in most fire areas/zones where modifications to eliminate Appendix R noncompliances are required (Reference 7.1), adequate fire protection and suppression features currently exist to ensure safe plant shutdown, except in those areas/zones noted in section 3.2 and Appendix A. Modifications will be undertaken during the current plant outage, to ensure safe plant shutdown in the event of a fire in those areas/zones where existing fire protection and suppression features are not adequate. In addition, procedural guidelines will be in place for restart (symptom oriented Emergency Operating procedures) or continuous fire watches will be posted.

A summary of justifications for schedule relief in various fire areas/zones from the consequence analysis is given here for a quick understanding of the bases for justifying safe shutdown in each fire area/zone.

The following categories have been used for justification:

(1) Lack of Combustibles

A review of the fire area/zone indicates a low level of combustibles making the risk from a fire sufficiently low.

(2) Sufficient Fire Protection Features

A review of the fire area/zone indicates that sufficient fire detection and/or automatic suppression features exist to make fire propagation to unacceptable levels unlikely.

(3) Alternate Shutdown Systems

A review of the fire area/zone indicates that unaffected alternative systems are available for use in lieu of the lost function. The alternate system can be utilized by the operator in conjunction with the plant emergency procedures (EOPS, Reference 2) to recover the lost function(s).

(4) Temporary Rerouting or Protection Provided

A review of the categories above provided no justification for schedule relief. Temporary rerouting or protection is required for schedule relief.

(5) Continuous Fire Watch or Supplemental Procedures to EOPS/or Continuous Fire Watch Until Supplemental Procedures in Place

An individual will be continuously present to detect and respond to any fire emergency. This provides reasonable assurance that a fire will be discovered in its initial stages before significant damage occurs and will be suppressed manually by either the fire watch or the plant fire brigade ; or supplemental procedures to the EOPS will be implemented which provide capability to achieve cold shutdown; or a continuous fire watch will be provided until supplemental procedures discussed above are in place.

Summary of Justifications

The justifications for Schedule Relief are summarized as follows:

<u>Fire Area/Zone Designation</u>	<u>Description</u>	<u>Justification</u>
FZ-1D	Reactor Building, elevation 51'	1,2,3,5
FZ-1E	Reactor Building, elevation 23'	1,2
FA-3A	1C 4160V Emergency Switchgear Vault	3
FA-6	480V Switchgear Room	2
FZ-8A	MG Set Room, elevation 35'	1,2
FZ-8C	A&B Battery Room, Tunnel and Tray Room	1,2
FA-9	Office Building	1,3
FZ-10A	Monitoring and Change Room Area	1,2
FZ-11B	Turbine Lube Oil Storage, Pumping and Purification Area	2,3,5
FZ-11C	Switchgear Room, west end of Turbine Building on Mezzanine Level	3,4,5
FZ-11D	Basement Floor South End	1,2
FZ-11E	Condenser Bay	1,2
FA-14	Circulating Water Intake	1,5*

* The Intake Structure is continuously monitored by security guards. In addition the area is provided with 24 hours video surveillance by plant security.

3.0 CONSEQUENCE ANALYSIS

3.1 Methodology to Develop Justification for Schedule Relief

The following is a description of the methodology used to prepare justifications to support the Appendix R modification schedule:

- (1) Updated the original Appendix R Fire Evaluation Table (Ref. 7.1 b) which lists the Appendix R non-compliances by fire area/zone including the lost protective function, affected trays/conduits and drawing reference. This update incorporated the reduced* number of safe shutdown circuits identified by GPUNC since the issuance of the original Appendix R Fire Evaluation Report as well as the results of the recently completed audible signal testing and visual verification task which determined the exact routing of the remaining circuits.
- (2) Identified alternate systems, components and related auxiliaries previously cited in the Appendix R Fire Evaluation Report Table in addition to non-safety systems, components and auxiliaries not considered in the original Appendix R Fire Evaluation.
- (3) Performed a detailed consequence analysis of each fire area/zone. The amount of combustibles, fire protection features (i.e., detection, automatic suppression, manual hose stations), shutdown systems that may be subject to degradation, and alternate system that are physically separated, including their electrical power and control circuits were considered in the analysis.
- (4) Based on the results of step (3) above, prepared detailed justification to support the Appendix R modifications schedule. These justifications are summarized and described below in Section 3.2. For all fire areas/zones containing shutdown systems that could be subject to degradation which are not provided with existing fixed automatic suppression systems, interim measures consisting of procedural guidelines for plant operations to control the affected system functions were provided in accordance with plant

emergency procedures, "EOPS" (Reference 2). Additional interim measures such as continuous fire watch or supplemental procedures to modify the EOPS to demonstrate a means to get to cold shutdown or a continuation of both were proposed.

- * Number of circuits was considerably reduced as a result of GPUN's detailed evaluation of control logic elementary and electrical power distribution drawings.

3.2 Justification for Schedule Relief; Discussions

The following is a brief discussion of the findings in each fire area/zone including justifications for schedule relief. For a tabular summary including procedural guidelines see Appendix A.

(1) Fire Zone (FZ-1D) - Reactor Building, Elevation 51'

The systems subject to degradation from a fire in this zone are identified in Appendix A of this report. Also indicated are the systems that are unaffected by the fire. Justification for schedule relief is based on the following:

- a. Reactor Scram is unaffected thus assuring Reactivity Control.
- b. Alternate systems are available to provide RC Makeup, Decay Heat Removal and Supporting Functions.
- c. Minimal degradation of the systems in this fire zone due to the low combustible loading and existing automatic detection and suppression systems which will activate to protect safe shutdown circuits in cable trays.
- d. Emergency Procedures (EOPS) are utilized by the operator to compensate for any lost monitoring parameters or systems to bring the reactor to hot shutdown.
- e. A continuous fire watch will be provided in the fire zone or supplemental procedures will be provided to supplement

the EOPS to demonstrate a means to get to cold shutdown or a continuous fire watch will be provided until the aforementioned supplemental procedures take effect.

(2) Fire Zone (FZ-1E) - Reactor Building, Elevation 23'

As indicated in Appendix A, all shutdown systems contained in the reactor building are subject to degradation. However, the existing automatic detection and suppression system protecting cable trays in this fire zone will activate to protect the vulnerable systems until extinguishment. Therefore no loss of safe shutdown capability will occur. No interim measures are required.

(3) Fire Area (FA-3A) - Turbine Building, 4160V ES SWGR - 1C

The only shutdown system lost by a fire in this area is the Drywell Cooling System. All other systems contained in this fire area have redundant trains contained in the adjacent fire area, FA-3B. Since this is the only nonredundant safe shutdown system affected, the operator can utilize alternate systems that are unaffected by a fire in this area to achieve safe plant shutdown. Therefore, justification for schedule relief is based on the availability of alternate systems.

(4) Fire Area (FA-6) - 480V Switchgear Room

As identified in Appendix A, many systems, both safety grade and non-safety grade, are subject to degradation by a fire in this area. However, the existing automatic detection and suppression system protecting this fire area will activate to protect the vulnerable systems until extinguishment. Therefore, no loss of safe shutdown capability will occur. No interim measures are required. Justification for schedule relief is based on existing fire protection features.

(5) Fire Zone (FZ-8A) - MG Set Room

As indicated in Appendix A, the number of systems subject to degradation are small and many unaffected systems exist. However, the existing automatic suppression system protecting the fire zone will activate to protect the vulnerable systems until extinguishment. Therefore no loss of safe shutdown capability will occur. No interim measures are required. Justification for schedule relief is based on low combustible loading and existing fire protection features.

(6) Fire Zone (FZ-8C) Battery Room, Tunnel, Electric Tray Room

As indicated in Appendix A, many systems are subject to degradation by a fire in this zone. However, the existing automatic detection and suppression system protecting the fire zone will activate to protect the vulnerable systems until extinguishment. Therefore, no loss of safe shutdown capability will occur. No interim measures are required. Justification for schedule relief is based on low combustible loading and existing fire protection features.

(7) Fire Area (FA-9) Office Building

The only shutdown systems subject to degradation by a fire in this area are the ADS (two EMRV's) and the Shutdown Cooling systems. Since all other shutdown systems are unaffected by a fire in this area, the operator can utilize the unaffected systems as directed in the emergency procedures (EOPS). Justification for schedule relief is based on the availability of alternate systems utilized in conjunction with the emergency procedure and the low combustible loading in this fire area.

(8) Fire Zone (FZ-10A) Monitoring and Change Room Area

The systems subject to degradation from a fire in this zone are identified in Appendix A of this report. However, the existing automatic

detection and suppression system protecting this zone will activate to protect the vulnerable systems until extinguishment. Therefore, no loss of safe shutdown capability will occur. No interim measures are required. Justification for schedule relief is based on low combustible loading and existing fire protection features.

(9) Fire Zone (FZ-11B) Turbine Lube Oil Storage, Pumping and Purification Area

As indicated in Appendix A of this report, many safety grade shutdown systems located in the reactor building are subject to degradation. However, the operator can utilize the unaffected systems cited in Appendix A in conjunction with plant emergency procedures to bring the reactor to hot shutdown. In addition, a continuous firewatch will be provided in the fire zone or supplemental procedures will be provided in addition to the EOPS to demonstrate a means to get to cold shutdown or a continuous fire watch will be provided until the aforementioned supplemental procedures take effect. Therefore, justification for schedule relief is based on availability of alternate systems utilized in conjunction with plant emergency procedures, and the additional proposed interim measures as described above.

(10) Fire Zone (FZ-11C) Turbine Building Switchgear Area, Mezzanine

As indicated in Appendix A of this report, many safety grade shutdown systems are subject to degradation. A fire in this zone may affect the onsite and offsite electrical power systems. Since the only fire protection in this zone is automatic detection with manual hose capability a rerouting is required for schedule relief justification. In review of the electrical circuitry in this zone, one train of the onsite essential power system will be preserved by rerouting four (4) circuits out of FZ-11C. This modification would provide the operator with the capability to bring the reactor to hot shutdown utilizing emergency operating procedures. In addition, a continuous fire watch will be

provided in the fire zone or supplemental procedures will be provided in addition to the EOPS to demonstrate a means to get to cold shutdown or a continuous fire watch will be provided until the aforementioned supplemental procedures take effect. Justification for schedule relief is based upon the rerouting of essential power circuits, availability of alternate systems utilized in conjunction with plant emergency procedures and the additional interim measures as described above.

(11) Fire Zone (FZ-11D) Turbine Building South End Basement

Appendix A identifies systems that are affected by a fire in this zone. However, the existing automatic suppression system protecting this fire zone will activate to protect the vulnerable systems until extinguishment therefore, no loss of safe shutdown capability will occur. No interim measures are required. Justification for schedule relief is based on low combustible loading and existing fire protection features.

(12) Fire Zone (FZ-11E) Turbine Building Condenser Bay

The systems subject to degradation and unaffected systems are identified in Appendix A. However, the existing automatic suppression system protecting this fire zone will activate to protect the vulnerable systems until extinguishment. Therefore, no loss of safe shutdown capability will occur. No interim measures are required. Justification for schedule relief is based on low combustible loading and existing fire protection features.

(13) Fire Area (FA-14) Circulating Water Intake

The systems subject to degradation in this area are identified in Appendix A. Since all circuitry is in conduit, the combustible loading is low, and some degree of separation exists between the two unit substations, the probability of a fire in this area degrading the systems identified in Appendix A of this report

is low. This area is continuously monitored by security guards located at a guard house designated for the intake structure. In addition, the area is provided with 24 hour video surveillance by plant security. Justification for schedule relief is based on low combustible loading at the intake structure and existing surveillance of the structure as described above.

4.0 ENGINEERING OF REQUIRED MODIFICATIONS

As noted in the NRC's safety evaluation report dated November 18, 1982 (Letter LSO5-82-11-063), Oyster Creek has undergone an evaluation in accordance with the requirements of Section III.G and III.L of Appendix R, and has identified non-compliances and proposed modifications in combination with exemption requests which we believe to be justifiable and consistent with sound fire protection engineering practices. Appendix B is a list of all fire areas which have been evaluated. This table presents GPUN's disposition as defined in the initial report submitted on June 30, 1982, plus a clarified position with respect to specific exemption requests for each fire area and fire zone. (Note that these exemption requests reflect a general position with respect to exemption requests. The updated reports (Rev. 2) relate exemptions requested based upon each non-compliance. Proposed modifications in order to comply with Appendix R will consist of cable rerouting or imposition of fire barriers to eliminate noncompliances. Some fire barrier modifications will be combined with specific exemption requests if the situation necessitates it. In addition, an alternate shutdown facility will be designed for fires, which occur in the Control Room or Cable Spreading Room.

GPUN has completed an extensive field effort to determine the exact routing of shutdown circuits. Conceptual design of the modifications outlined in our May submittal is currently being done.

Detailed engineering can then proceed with respect to extent of fire barrier coverage and/or cable rerouting and the selection, procurement and location of new equipment. In addition, the scope of work identified in the evaluation shall include the design of those modifications for which an exemption is requested. Cable rerouting may not eliminate the need for fire barrier protection as rerouting may constitute removal of redundant circuits from the same tray or conduit but not necessarily removal to a separate fire area or zone in which case one train may still require a fire barrier. Upon completion of this effort, a cable derating study as well as a study to determine the adequacy of the existing tray and conduit supports to accommodate the additional deadweight load imposed by the fire barrier must be performed. Both derating and supports analyses, and appropriate modifications, if required, must be completed for plant safety purposes prior to imposing fire barriers.

When the scope of both fire barrier and cable rerouting is complete, engineering can be performed in parallel with efforts to reinforce tray and conduit supports. Again, in order not to compromise plant safety, cable rerouting and tray and conduit support reinforcement will be performed during the cycle 11 outage. Fire barrier installation will then proceed with completion scheduled prior to startup.

The attached schedule for Appendix R modifications provides information on various elements of the project and their progression until completion of all the related tasks in Cycle 11. It can be seen from this schedule that Oyster Creek's compliance with Appendix R will gradually and continuously improve and will be in full compliance before startup after Cycle 11 refueling outage.

GPUN proposes deferral of Appendix R modifications for all plant areas to the Cycle 11 outage, in accordance with the attached schedule.

5.0 OUTAGE RELATED EFFORTS OTHER THAN APPENDIX R REQUIRED MODIFICATIONS

Considerable effort has been spent in defining the total number of modifications which GPUN believes is reasonably achievable during the Cycle 10 outage. Our letter of December 24, 1981, indicated that the total number of items which had been identified up to this date "exceeded any reasonable ability to manage the outage". Furthermore, "the original outage scope would constitute a potential overall safety problem, and ALARA and safety concerns would not be properly served by proceeding as originally planned".

It is evident from previous correspondence with the commission regarding the necessity to defer a number of NRC required modifications that the commission recognizes the logistical constraints on manageability placed upon GPUN due to the magnitude of effort required in the current outage. The present plans do not incorporate any provisions for Appendix R modifications during the current outage except for fire zone FZ-11C where circuits will be rerouted to preserve the on site electrical distribution system. Should the schedule exemption be denied for an item not requiring NRC approval and requiring a plant shutdown, deferral of other outage work may be required. Due to the nature of the anticipated Appendix R modifications such as cable tray and conduit fire barriers, and cable rerouting throughout the plant, scheduling these modifications concurrent with already planned non Appendix R modifications could interfere with the timely completion of the planned NRC modifications as well as planned safety and operational items, plant maintenance, inspections and upgrades.

Appendix C provides a preliminary list of modifications planned for Cycle 11 outage along with Appendix R modifications. The modifications are selected using an established priority assignment method based on safety, plant operational and performance concerns, resources availability, etc. considerations.

6.0 CONCLUSION

For the reasons specified in items 4.0 and 5.0, GPUN believes it is impractical to plan for completion of required Appendix R modifications during the Cycle 10 outage as the workload for this outage has already been scaled down with deferral of specific NRC initiated non Appendix R modifications due to manageability problems. In addition, the engineering required to support the effort to define a complete work scope could not proceed effectively until the Cycle 10 outage began. For these reasons, GPUN requests deferral of implementation of Appendix R modifications to the Cycle 11 outage.

Technical justification to support plant restart and operation between the Cycle 10 and 11 outages without complete implementation of Appendix R modifications is provided in section 3.0 and Appendix A.

7.0 REFERENCES

The following references were used for preparing this Justification for Appendix Scheduler Relief:

1. a. GPUN letter to Mr. D. Crutchfield dated June 30, 1982, "Fire Protection 10 CFR 50.48"
- b. GPUN letter to D. Crutchfield dated December 16, 1983 "Fire Protection 10 CFR 50.48"
- c. GPUN letter to D. Crutchfield dated May 3, 1984 "Fire Protection 10 CFR 50.48"
2. Symptom Based Emergency Procedures (EOPS) per Rev. 2 of Generic BWR Emergency Procedure Guidelines, EMG 3200.01 thru 08, Drafts.
3. NRC letter LS05-82-11-063 dated November 18, 1982. D. Crutchfield to P. B. Fiedler, "Safety Evaluation Report for Appendix R to 10 CFR 50 Items IIIIG and IIIL - Oyster Creek"
4. GPUN letter to NRC dated December 24, 1981, "Cycle 10 Refueling Outage"
5. NRC letter LS05-82-07-076 dated July 30, 1982. D. Eisenhut to P. Clark, "Request for Deferment of Items Which GPU Nuclear Corporation Had Previously Committed to Accomplish During the 1982 Cycle 10 Oyster Creek Refueling/Maintenance Outage"
6. GPUN letter to D. Eisenhut dated December 29, 1983, "Cycle 10 Refueling Outage"
7. Oyster Creek Outage Technical Functions Contract Status as of January 8, 1983

JUSTIFICATION FOR SCHEDULE RELIEF TABLES

ITEM	FIRE AREA/ZONE	LOCATION	PRESENT FIRE PROTECTION STATUS	S/D SYSTEMS SUBJECT TO DEGRADATION	NOTE 1	UNAFFFECTED SYSTEMS	NOTE 1	INTERIM MEASURES
1.	RB-FZ-ID	Reactor Building El. 51'	Combustible loading is low. Existing detection and automatic deluge water spray protection for cable trays (100% tray coverage) will minimize fire damage	Safety Systems-Onsite Power		Safety Systems-Onsite Power		The reactor can be brought to hot shutdown with the unaffected onsite powered systems by utilizing the Emergency Operating Procedures as follows:
				Isolation Condenser	3	Reactor Scram	1	<u>Procedural Guidelines (EOPS)</u> 1. Evaluate entry conditions of the symptom based emergency procedures (EOPS) EMG 3200.01. If the entry conditions are satisfied, follow procedure EMG 3200.01 RC/L, RC/P and RC/Q utilizing systems unaffected by the fire in this zone. If the entry conditions are not satisfied, follow normal shutdown procedures. NOTE: A) If RPV level cannot be determined, RPV Flooding is required. Enter procedure EMG 3200.08, RPV Flooding. If the EMRV's are unavailable and remain in the closed position, follow procedure EMG 3200.01 RC/P-2 to re-establish pressure control utilizing the systems unaffected by the fire in this zone. B) If any EMRV is cycling, enter procedure EMG 3200.01 RC/P-1. 2. Complete evaluation of entry conditions for EMG 3200.02, Containment Control cannot be determined because circuits and com-
				Core Spray	2	MSIV's	5	
				IRM's	4	Containment Spray	5	
				Rx Fuel Zone Level	4	Emergency Service Water (ESW)	5	
				EMRV's	3	Fire Water*	2,5	
				RBCCW	5	Drywell Pressure	4	
				RPV Level & Pressure	4	Cleanup (Isolation)	5	
				Shutdown Cooling (Components & RBCCW)	3	Rx Recirculation (Trip)	5	
				Drywell Cooling (RBCCW)	5	Electrical	5	
						Service Water (SWS)	5	
						Condensate Transfer	5	
						Containment Monitoring	4	
						CRD Hydraulic	2	
						RPV Level & Pressure (Local)	4	
						Isolation Condenser (Manual)	3	
						Non-Safety System-Offsite Power		
						Turbine Bypass System (TBS)	3,5	
						Circulating Water	5	
						Condensate	2	
						Feedwater	2	
						TBCCW	5	

*This system has an independent power supply and does not require onsite or offsite power to operate.

NOTE 1: Safety Function Legend - 1. Reactivity Control 3. Decay Heat Removal 5. Supporting Functions
 2. RC Makeup 4. Process Monitoring

JUSTIFICATION FOR SCHEDULE RELIEF TABLES

ITEM	FIRE AREA/ZONE	LOCATION	PRESENT FIRE PROTECTION STATUS	S/D SYSTEMS SUBJECT TO DEGRADATION	NOTE	UNAFFECTED SYSTEMS	NOTE	INTERIM MEASURES
					1		1	
1.	RB-FZ-1D (Cont'd)	Reactor Building El. 51'						ponents for torus water temperature and drywell temperature were not identified in the original Appendix R Fire Evaluation. Since the other parameters, Torus water level and drywell pressure have been considered and are unaffected by the fire in this zone, utilize systems identified in SP/T-2 and DM/T to assure Containment Control. The impact on containment control may be created by a stuck open or spuriously actuating EMRV or EMRV's which cannot be opened. Because cold shutdown cannot be achieved utilizing the EOPs alone, GPUNC will either: A. Post a continuous fire watch. B. Develop and implement a supplemental procedure in addition to the EOPs which provides the capability to achieve cold shutdown. C. Post a continuous fire watch until the supplemental procedure is developed.
2.	RB-FZ-1E	Reactor Building El. 23'	Combustible loading is low. Existing detection and automatic deluge water spray protection for cable trays (100% tray coverage) will minimize fire damage.	Safety Systems-Onsite Power Reactor Scram Isolation Condenser CRD Hydraulic Core Spray EMRV's Electrical Containment Spray ESW IRM's		Safety Systems-Onsite Power Fire Water* Service Water Condensate Transfer Electrical (Offsite Power) RPV Level & Pressure (Local) Reactor Scram (see text) ESW (Manual) MS Isolation (Manually Isolate) Isolation Condenser (Manual) Core Spray (Manual)	2,5 5 5 5 4 1 5 5 3 4	1. The existing detection and automatic suppression systems are considered adequate to limit damage and protect the vulnerable systems. Therefore, interim measures are not required.

*This system has an independent power supply and does not require onsite or offsite power to operate.

NOTE 1: Safety Function Legend - 1. Reactivity Control 3. Decay Heat Removal 5. Supporting Functions
2. RC Makeup 4. Process Monitoring

JUSTIFICATION FOR SCHEDULE RELIEF TABLES

ITEM	FIRE AREA/ZONE	LOCATION	PRESENT FIRE PROTECTION STATUS	S/D SYSTEMS SUBJECT TO DEGRADATION	NOTE 1	UNAFFECTED SYSTEMS	NOTE 1	INTERIM MEASURES
2.	RB-FZ-1E (Cont'd)	Reactor Building El. 23'		Rx Fuel Zone Level	4	Drywell Cooling (Manual)		
				Main Steam Isolation	5	Containment Monitoring	4	
				Shutdown Cooling	3			
				Cleanup (Isolation)	5	Non-Safety System-Offsite Power		
				Drywell Cooling	5			
				RBCCW	5	Feedwater	2	
				RPV Level & Pressure	4	Condensate	2	
						Circulating Water	5	
				Non-Safety System-Offsite Power		Turbine Bypass System (TBS)	3,5	
						TBCCW	5	
		Rx Recirculation	5					
3.	TB-FA-3A	Turbine Building 4160V SWGR-1C	Limited combustible loading and presence of a detection system and manually actuated CO ₂ system will provide prompt extinguishment of a fire.	Safety Systems-Onsite Power		Safety Systems-Onsite Power		The reactor can be brought to cold shutdown with the unaffected onsite powered systems by utilizing the Emergency Operating Procedures as follows: A fire in this area will not affect the safe shutdown of the plant. Loss of the Drywell Cooling Units will not create an entry condition to EMG 3200.01 or 02. Therefore, the operator should be concerned with extinguishing the fire and continue normal operation until a determination can be made as to the damage in this area. If the entry conditions to procedure EMG 3200.02 Containment Control are satisfied, utilize systems identified in this procedure that are unaffected by the fire in this area.
				Drywell Cooling	5	Reactor Scram	1	
						CRD Hydraulic	2	
						Core Spray	2	
						EMRV's	3	
						Containment Spray	5	
						Emergency Service Water (ESW)	5	
						Electrical	5	
						IRM's	4	
						Main Steam (Isolation)	5	
						Containment Monitoring	4	
						Rx Fuel Zone Level	4	
						RPV Level and Pressure	4	
						Shutdown Cooling	3	
						Cleanup (Isolation)	5	
						RBCCW	5	
						Fire Water*	2,5	
						Service Water (SWS)	5	
						Condensate Transfer	5	
						Non-Safety System-Offsite Power		
		Feedwater	2					
		Condensate	2					
		Circulating Water	5					
		Turbine Bypass System (TBS)	3,5					
		TBCCW	5					
		Rx Recirculation	5					

*This system has an independent power supply and does not require onsite or offsite power to operate.

NOTE 1: Safety Function Legend - 1. Reactivity Control 3. Decay Heat Removal 5. Supporting Functions
 2. RC Makeup 4. Process Monitoring

JUSTIFICATION FOR SCHEDULE RELIEF TABLES

ITEM	FIRE AREA/ZONE	LOCATION	PRESENT FIRE PROTECTION STATUS	S/D SYSTEMS SUBJECT TO DEGRADATION	NOTE 1	UNAFFECTED SYSTEMS	NOTE 1	INTERIM MEASURES
4.	OB-FA-6	480V Swgr. Room	Existing detection and automatically actuated total flooding Halon 1301 systems will extinguish fire in its incipient stage and minimize fire damage.	<u>Safety Systems-Onsite Power</u> Reactor Scram CRD Hydraulic Core Spray Containment Spray Isolation Condenser IRM's (Electrical) Electrical Drywell Cooling RBCCW Main Steam (Out Iso.) EMRV's (Control) Shutdown Cooling Containment Monitoring (Components and Electrical) ESW (Electrical) Clean Up System (Iso) Rx Fuel Zone Level RPV Level & Pressure (Electrical) <u>Non-Safety Systems-Offsite Power</u> Feedwater (Cont Pwr) TBCCW (Control Pwr) Circ. Wtr. (Cont Pwr) TBS (Electrical) Condensate (Circ. Wtr. & TBCCW)	 1 2 2 5 3 4 5 5 5 5 5 3 3 4 5 5 4 4 2 5 5 3,5 2	<u>Safety Systems-Onsite Power</u> Rx Recirculation (Trip) Fire Water* Service Water Condensate Transfer RPV Level & Pressure (Local) Reactor Scram (see text) MS Isolation (Manually Close) Isolation Condenser (Manual control, one spurious actuation closes one inboard condensate return valve)	 5 2,5 5 5 4 1 5 3	1. The existing detection and automatic suppression systems are considered adequate to limit damage and protect the vulnerable systems. Therefore, interim measures are not required.
5.	OB-FZ-8A	MG-Set Room	Combustible loading is low. The area is presently provided with automatic wet pipe sprinkler protection to extinguish fires.	<u>Safety Systems-Onsite Power</u> Reactor Scram CRD Hydraulic Isolation Cond. Core Spray (Iso Vlvs) EMRV's IRM's MSIV's Shutdown Cooling	 1 2 3 2 3 4 5 3	<u>Safety Systems-Onsite Power</u> Containment Spray ESW Rx Fuel Zone Level Reactor Recirculation (Trip) Electrical Fire Water* Cleanup (Isolation) Drywell Cooling RBCCW Service Water	 5 5 4 5 5 2,5 5 5 5 5	1. The existing area-wide automatic suppression system is considered adequate to limit damage and protect the vulnerable systems. Therefore, interim measures are not required.

*This system has an independent power supply and does not require onsite or offsite power to operate.

NOTE 1: Safety Function Legend - 1. Reactivity Control 3. Decay Heat Removal 5. Supporting Functions
 2. RC Makeup 4. Process Monitoring

JUSTIFICATION FOR SCHEDULE RELIEF TABLES

ITEM	FIRE AREA/ZONE	LOCATION	PRESENT FIRE PROTECTION STATUS	S/D SYSTEMS SUBJECT TO DEGRADATION	NOTE 1	UNAFFECTED SYSTEMS	NOTE 1	INTERIM MEASURES
5.	OB-FZ-8A (Cont'd)	MG-Set Room		Non-Safety System-Offsite Power		RPV Level and Pressure	4	
						Condensate Transfer	5	
						Reactor Scram (see text)	1	
					5	Core Spray (Iso. Vlvs.)(Manual)	2	
						Isolation Condenser (Manual)	3	
						MSIV's (Manually close)	5	
						Containment Monitoring	4	
						Non-Safety System-Offsite Power		
						Feedwater	2	
						Condensate	2	
6.	OB-FZ-8C	Battery Room Tunnel, Electric Cable Room	Combustible loading is low. Existing detection and automatically actuated total flooding Halon 1301 systems will extinguish fire in its incipient stage and minimize fire damage.	Safety Systems-Onsite Power		Safety Systems-Onsite Power		1. The existing detection and automatic suppression systems are considered adequate to limit damage and protect the vulnerable systems. Therefore, interim measures are not required.
				Reactor Scram	1	Fire Water*	5	
				Isolation Condenser	3	Rx Fuel Zone Level	4	
				CRD Hydraulic	2	Reactor Scram (see text)	1	
				Core Spray	2	RPV Level & Pressure (Local)	4	
				EMRV's	3	Isolation Condenser (Manual control, one spurious actuation closes one inboard condensate return valve)	3	
				Containment Spray	5			
				ESW	5			
				Electrical	5			
				MSIV's	5			
IRM's	4							
Drywell Cooling	5							
RBCCW	5							
Clean Up (Iso. Vlvs.)	5							
Shutdown Cooling	3							
Condensate Transfer (Electrical)	5							
Service Water (Electrical)	5							
RPV Level & Pressure (Electrical)	4							
Containment Monitoring (Electrical)	4							
Non-Safety Systems-Offsite Power								
Feedwater (Electrical)	2							

*This system has an independent power supply and does not require onsite or offsite power to operate.

NOTE 1: Safety Function Legend

1. Reactivity Control

3. Decay Heat Removal

5. Supporting Functions

JUSTIFICATION FOR SCHEDULE RELIEF TABLES

ITEM	FIRE AREA/ZONE	LOCATION	PRESENT FIRE PROTECTION STATUS	S/D SYSTEMS SUBJECT TO DEGRADATION	NOTE	UNAFFFECTED SYSTEMS	NOTE	INTERIM MEASURES
					1		1	
8.	FZ-10A	Monitoring & Change Room Area	Combustible loading is low. Existing detection will provide warning of fire in its incipient stage and automatic wet pipe sprinkler system above and below the false ceiling will extinguish a fire and minimize damage.	Safety Systems-Onsite Power Core Spray (Valves) Isolation Condenser EMRV's Rx Fuel Zone Level IRM's Shutdown Cooling RPV Pressure & Level		Safety Systems-Onsite Power		1. The existing detection and automatic suppression systems are considered adequate to limit damage and protect the vulnerable systems. Therefore, interim measures are not required.
						Reactor Scram	1	
						CRD Hydraulic	2	
						Containment Spray	5	
						ESW	5	
						Core Spray (Manual)	2	
						MSIV's	5	
						Electrical	5	
						Fire Water*	2,5	
						Drywell Cooling	5	
						Clean Up System (Iso. Valves)	5	
						Containment Monitoring	4	
						RBCCW	5	
						Service Water	5	
						Condensate Transfer	5	
						RPV Level & Pressure (Local)	4	
						Isolation Condenser (Manual control, local level indication)	3	
						Non-Safety System-Offsite Power		
						Feedwater	2	
						Condensate	2	
	Circulating Water	5						
	Turbine Bypass System (TBS)	3,5						
	TBCCW	5						
	Rx Recirculation	5						
9.	TB-FZ-11B	Turbine Building-Lube Oil Storage, Pumping & Pur. Areas	Although combustible loading is high, it is confined to Turbine Oil equipment which is protected by automatically actuated deluge water spray systems. The bearing lift pump is provided with a closed head sprinkler system and the trays in the area are protected by a closed head automatic sprinkler system. All these systems combined, will minimize the spread of fire beyond the oil storage areas while protecting cable.	Safety Systems-Onsite Power Core Spray Condensate Transfer Drywell Cooling Service Water RBCCW (SWS) Shutdown Cooling (RBCCW) Containment Monitoring		Safety Systems-Onsite Power		The reactor can be brought to hot shutdown with the unaffected onsite powered systems by utilizing the Emergency Operating Procedures as follows: <u>Procedural Guidelines (EOPS)</u> 1. Evaluate entry conditions of EMG 3200.01. If the entry conditions are satisfied, follow procedure EMG 3200.01 utilizing
						Reactor Scram	1	
						EMRV's	3	
						Fire Water*	2,5	
						MSIV's	5	
						Rx Recirculation (Trip)	5	
						RPV Level & Pressure (Local)	4	
						Isolation Condenser	3	
						Containment Spray	5	
						Emergency Service Water	5	
						Reactor Fuel Zone Level	4	
						IRM's	4	
						RPV Level & Pressure	4	
						CRD Hydraulic	2	

*This system has an independent power supply and does not require onsite or offsite power to operate.

NOTE 1: Safety Function Legend - 1. Reactivity Control
3. Decay Heat Removal
5. Supporting Functions

JUSTIFICATION FOR SCHEDULE RELIEF TABLES

ITEM	FIRE AREA/ZONE	LOCATION	PRESENT FIRE PROTECTION STATUS	S/D SYSTEMS SUBJECT TO DEGRADATION		UNAFFECTED SYSTEMS		INTERIM MEASURES
					NOTE 1		NOTE 1	
9.	TB-FZ-11B (Cont'd)	Turbine Building-Lube Oil Storage, Pumping & Pur. Areas						B. Develop and implement a supplemental procedure in addition to the EOPs which provides the capability to achieve cold shutdown. C. Post a continuous fire watch until the supplemental procedure is developed.
10.	TB-FZ-11C	Turbine Building Switchgear Area Mezzanine	Fire detection only. Detection and manual hose capability combined with quick response by the fire brigade will assure capability to achieve hot and cold shutdown.	<u>Safety Systems-Onsite Power</u> Drywell Cooling Service Water CRD Hydraulic Core Spray RBCCW (SWS) Shutdown Cooling (RBCCW) <u>Non-Safety Systems-Offsite Power</u> Feedwater Condensate Circulation Water TBCCW (Electrical)	5 5 2 2 5 3 2 2 5 5 2 2 5 5	<u>Safety Systems-Onsite Power</u> Reactor Scram EMRV's Fire Water* MSIV's Rx Recirculation (Trip) RPV Level & Pressure (Local) Isolation Condenser Condensate Transfer Emergency Service Water Containment Spray Cleanup (Iso. Valves) Rx Fuel Zone Level Containment Monitoring RPV Level and Pressure IRM's Electrical <u>Non-Safety System-Offsite Power</u> Turbine Bypass System (TBS)	1 3 5 5 5 4 3 5 5 5 4 4 4 4 5 3,5	The reactor can be brought to hot shutdown with the unaffected onsite powered systems by utilizing the Emergency Operating Procedures as follows: <u>Procedural Guidelines (EOPS)</u> 1. Evaluate entry conditions of EMG 3200.01. If the entry conditions are satisfied, follow procedure EMG 3200.01 utilizing systems unaffected by the fire in this zone. If the entry conditions are not satisfied, follow normal shutdown procedures. 2. Complete evaluation of entry conditions for EMG 3200.02 Containment Control cannot be determined because circuits and components for torus water temperature and drywell temperature were not identified in the original Appendix R Fire Evaluation. Since the other parameters, Torus water level and drywell pressure have been considered and may be affected by the fire in this zone, utilize systems identified in SP/T-2 and DW/T to assure Containment Control.

*This system has an independent power supply and does not require onsite or offsite power to operate.

NOTE 1: Safety Function Legend - 1. Reactivity Control 3. Decay Heat Removal 5. Supporting Functions
 2. RC Makeup 4. Process Monitoring

JUSTIFICATION FOR SCHEDULE RELIEF TABLES

ITEM	FIRE AREA/ZONE	LOCATION	PRESENT FIRE PROTECTION STATUS	S/D SYSTEMS SUBJECT TO DEGRADATION	NOTE 1	UNAFFECTED SYSTEMS	NOTE 1	INTERIM MEASURES
10.	TB-FZ-11C (Cont'd)	Turbine Building Switchgear Area Mezzanine						<p><u>NOTE:</u></p> <p>A) Modifications to the Electrical Power System prior to startup will assure one train of the onsite electrical power system which will in turn render systems in the reactor building with power to operate.</p> <p>Because cold shutdown cannot be achieved utilizing the EOPs alone, GPUNC will either:</p> <p>A. Post a continuous fire watch.</p> <p>B. Develop and implement a supplemental procedure in addition to the EOPs which provides the capability to achieve cold shutdown.</p> <p>C. Post a continuous fire watch until the supplemental procedure is developed.</p>

*This system has an independent power supply and does not require onsite or offsite power to operate.

NOTE 1: Safety Function Legend - 1. Reactivity Control 3. Decay Heat Removal 5. Supporting Functions
2. RC Makeup 4. Process Monitoring

JUSTIFICATION FOR SCHEDULE RELIEF TABLES

ITEM	FIRE AREA/ZONE	LOCATION	PRESENT FIRE PROTECTION STATUS	S/D SYSTEMS SUBJECT TO DEGRADATION	NOTE	UNAFFECTED SYSTEMS	NOTE	INTERIM MEASURES
					1		1	
11.	TB-FZ-11D	Turbine Building South End Basement	Combustible loading is low. H ₂ Seal Oil Unit is protected by an automatic deluge water spray system. Area wide automatic wet pipe sprinkler protection is provided. These systems will extinguish a fire and minimize damage.	Safety Systems-Onsite Power		Safety Systems-Onsite Power		1. The existing area-wide automatic suppression system is considered adequate to limit damage and protect the vulnerable systems. Therefore, interim measures are not required.
				Reactor Scram	1	Reactor Scram	1	
				Core Spray	2	EMRV's	3	
				ESW	5	Fire Water*	2,5	
				Electrical	5	MSIV's	5	
				Drywell Cooling	5	Rx Recirculation (Trip)	5	
				Service Water	5	RPV Level & Pressure (Local)	4	
				Rx Fuel Zone Level	4	Isolation Condenser (Manual)	3	
				Isolation Condenser (Electrical)	3			
				Condensate Transfer (Electrical)	5	Non-Safety System-Offsite Power		
				Containment Spray (Electrical)	5	Turbine Bypass System (TBS)	3,5	
				RBCCW (Electrical, SWS)	5			
				CRD Hydraulic (Electrical)	2			
				RPV Level & Pressure (Electrical)	4			
				Containment Monitoring (Electrical)	4			
				IRM's (Electrical)	4			
				Shutdown Cooling (Electrical)	3			
				Clean Up (Isolation)	5			
				Non-Safety Systems-Offsite Power				
				Feedwater	2			
				Condensate	2			
				Circulating Water	5			
				TBCCW	5			

*This system has an independent power supply and does not require onsite or offsite power to operate.

NOTE 1: Safety Function Legend - 1. Reactivity Control 3. Decay Heat Removal 5. Supporting Functions
2. RC Makeup 4. Process Monitoring

JUSTIFICATION FOR SCHEDULE RELIEF TABLES

ITEM	FIRE AREA/ZONE	LOCATION	PRESENT FIRE PROTECTION STATUS	S/D SYSTEMS SUBJECT TO DEGRADATION	NOTE	UNAFFFECTED SYSTEMS	NOTE	INTERIM MEASURES		
					1		1			
13.	CW-FA-14	Circulating Water Intake	This area is not enclosed. Combustible loading is low. Should a fire occur by the transformers, oil will be retained by the dikes surrounding them.	<u>Safety Systems-Onsite Power</u>				<u>Safety Systems-Onsite Power</u>		
				ESW	5	Reactor Scram	1	This area is continuously manned and monitored by security guards located at the intake structure. In addition, the area is provided with 24 hour video surveillance by plant security.		
				Electrical	5	EMRV's	3			
				Service Water	5	CRD Hydraulic	2			
				RBCCW (SWS)	5	IRM's	4			
				Containment Spray (ESW)	5	MSIV's	5			
				Condensate Transfer (Electrical)	5	Fire Water*	2,5			
				Drywell Cooling (RBCCW)	5	Rx Fuel Zone Level	4			
				Shutdown Cooling (RBCCW)	3	Isolation Condenser	3			
						Core Spray	2			
						Cleanup (Isolation)	5			
						Containment Monitoring	4			
						RPV Level and Pressure	4			
						<u>Non-Safety System-Offsite Power</u>				
						Turbine Bypass System (TBS)	3,5			
						Feedwater (CWS)	2			
						Condensate (CWS)	2			
		Circulating Water	5							
		TBCCW (CWS)	5							
		Rx Recirculation (TBCCW)	5							

*This system has an independent power supply and does not require onsite or offsite power to operate.

NOTE 1: Safety Function Legend - 1. Reactivity Control 3. Decay Heat Removal 5. Supporting Functions
2. RC Makeup 4. Process Monitoring

APPENDIX B

Page 1.

SUMMARY OF EVALUATION AND
EXEMPTION REQUESTS

<u>FIRE AREA/ ZONE</u>	<u>LOCATION</u>	<u>ELEVATION</u>	<u>APP. R NON- COMPLIANCE</u>	<u>MOD.* REQ.</u>	<u>FIRE LOADING</u>	<u>TECHNICAL EXEMPTIONS REQUESTED</u>
1-FZ-1A	Reactor Bldg.	119	No	No	--	N R
1-FZ-1B	Reactor Bldg.	95	No	Yes	Low	N R
1-FZ-1C	Reactor Bldg.	75	No	Yes	Low	N R
1-FZ-1D	Reactor Bldg.	51	Yes	Yes	Low	Propose converting existing del. sys. to manual actuation. After mod's complete. Request exemption from additional suppression and detection.***
1-FZ-1E	Reactor Bldg.	23	Yes	Yes	Low	Propose converting existing del. sys. to manual actuation. After mod's complete. Request exemption from additional suppression and detection.***
1-FZ-1F	Reactor Bldg.	-19	No	No	--	N R
1-FZ-1G	Reactor Bldg.	38 & 51	No	No	--	N R
FA-2	Reactor Bldg./ Drywell	-	No	No	--	N R
FA-3A	Turbine Bldg. 4160V Swgr. 1C	Mezzanine	Yes**	Yes	High	N R

SUMMARY OF EVALUATION AND EXEMPTION
REQUESTS

<u>FIRE AREA/ ZONE</u>	<u>LOCATION</u>	<u>ELEVATION</u>	<u>APP. R NON- COMPLIANCE</u>	<u>MOD.* REQ.</u>	<u>FIRE LOADING</u>	<u>TECHNICAL EXEMPTIONS REQUESTED</u>
FA-3B	Turbine Bldg. 4160V Swgr. 1D	Mezzanine	No	No	--	N R
FA-4	Cable Spreading Room	36	Yes	No	--	Covered by alt. shutdown facility

*(1) Cable rerouting or

(2) one hour fire barriers (three hour where noted)

** Although systems identified here are in non-compliance, redundant systems located in other fire areas/zones, which cannot be damaged by a fire here will assure safe shutdown.

*** Modifications involving circuit rerouting within this zone may not fall under sphere of influence of existing suppression systems which protects cable trays only. An exemption from additional suppression and detection will be requested.

APPENDIX B

<u>FIRE AREA/ ZONE</u>	<u>LOCATION</u>	<u>ELEVATION</u>	<u>APP. R NON- COMPLIANCE</u>	<u>MGD.* REQ.</u>	<u>FIRE LOADING</u>	<u>EXEMPTION REQUESTED</u>
FA-5	Control Room	46	Yes	No	--	Covered by alt. shutdown facility
FA-6	480V Swgr. Room	23'-6"	Yes	Yes	1hr.	N R* To be split into two (2) separate fire areas.
FA-7	Redefined					
8-FZ-8A	MG Set Room	35'	Yes	Yes	Low	Fire detection system.
8-FZ-8B	Mech. Equip. Room	23'-6"	No	No	--	N R
8-FZ-8C	Battery Room Tunnel-Elec. Tray Room	35'	Yes	Yes	Low	N R
FA-9	Office Bldg.	A11	Yes	Yes	--	Automatic Suppression
10-FZ-10A	Monitoring & Change Room Area	46'	Yes	Yes	Low	One hour barriers on valve circuits
10-FZ-10B	Chem. Lab-Laundry & Inst. Shop	35'	No	Yes	--	Automatic Suppression
10-FZ-10C	Incorporated into 10-FZ-10A					
11-FZ-11A	Turbine Bldg. Operating Flr.	46'	No	No	--	N R
11-FZ-11B	Turbine Bldg.	--	Yes	Yes (3 hr. barrier)	High	N R

*(1) Cable rerouting or
(2) one hour fire barriers
(three hour where noted)

APPENDIX B

<u>FIRE AREA/ ZONE</u>	<u>LOCATION</u>	<u>ELEVATION</u>	<u>APP. R NON- COMPLIANCE</u>	<u>MOD.* REQ.</u>	<u>FIRE LOADING</u>	<u>EXEMPTION REQUESTED</u>
11-FZ-11C	Turbine Bldg. Swgr. Room	Mezzanine	Yes	Yes (3 hr. barrier)	High	N R
11-FZ-11D	Turbine Bldg. South End	Basement	Yes	Yes	Low	Fire detection system.
11-FZ-11E	Turbine Bldg.	Mezzanine & Basement	Yes	Yes	Low	Fire detection system. 20 ft. Separation with no interviewing com- bustibles.
11-FZ-11F	Turbine Bldg.	Basement	No	Yes	--	N R
1-FZ-11G	Turbine Bldg. South End	Mezzanine	No	No	--	N R
11-FZ-11H	Turbine Bldg. Southeast End		No	No	--	N R
FA-12	Main XFMR & Cond.	Yard	No	No	--	N R
FA-13	Aux. Boiler House	Yard	No	No	--	N R
FA-14	Circulating Water Intake	Yard	Yes	Yes	--	Fire detection system & suppression system. Also request exemption from fire barrier separation of transformers. Struc- ture is outdoors.

*(1) Cable rerouting or
(2) one hour fire barriers
(three hour where noted)

<u>FIRE AREA/ ZONE</u>	<u>LOCATION</u>	<u>ELEVATION</u>	<u>APP. R NON- COMPLIANCE</u>	<u>MOD.* REQ.</u>	<u>FIRE LOADING</u>	<u>EXEMPTION REQUESTED</u>
FA-15	No. 1 Emer. Dies. Gen. Rm.	Yard	No	No	--	N R
FA-16	Emer. Dies. Gen. Fuel Storage	Yard	No**	Yes	--	N R
FA-17	No. 2 Emer. Dies. Gen. Room	--	No	No	--	N R
FA-18	Diesel Fire Water Pump House	Yard	No	No	--	N R
FA-19	Old Radwaste Bldg.	All	No	No	--	N R
FA-20	New Radwaste Bldg.	All	No	No	--	N R
FA-21	Aux. Off Gas Bldg.	All	No	No	--	N R
FA-22	Mech. Equip.	63'	No	No	Undet. until des. complete	N R
FA-23	New Warehouse	All	No	No	--	N R
FA-24	Maintenance Bldg.	All	No	No	--	N R

*(1) Cable rerouting or
 (2) one hour fire barriers
 (three hour where noted)

** Modifications to allow fuel supply to either gen.
 in the event of fire in this room are required.

APPENDIX B

<u>FIRE AREA/ ZONE</u>	<u>LOCATION</u>	<u>ELEVATION</u>	<u>APP. R NON- COMPLIANCE</u>	<u>MOD.* REQ.</u>	<u>FIRE LOADING</u>	<u>EXEMPTION REQUESTED</u>
FA-25	New Fire Pump House & Tk.	Yard	No	No	--	N R
FA-26	Turbine Bldg. Battery Room	Mezzanine	No	No	--	N R

- *(1) Cable rerouting or
- (2) one hour fire barriers
(three hour where noted)

OYSTER CREEK STATIONTENTATIVE NON-REGULATORY INITIATED MODS. DURING CYCLE 11 ('85) OUTAGE

<u>S. No</u>	<u>Title</u>	<u>Man Hours</u>
1.	Torus Water Drain Line to TWST	240
2.	Control Room Human Factors Mods - Phase 3	4,500
3.	A&B 125V DC System Breakers Open Ind.	1,500
4.	Iso Condenser Pipe Break Monitor	7,500
5.	Excess Flow Check Valve	7,500
6.	ESW Rad Monitor	1,200
7.	RBCCW Circuit Mod	2,700
8.	Screen Wash Sluice Line	9,000
9.	Additional Spent Fuel Storage - Poison Racks	67,500
10.	Core Spray Fill Pump Circuit Mod.	1,050
11.	Diesel Generator Trip Logic Mod.	1,800
12.	Intake Evaluation & Upgrade	6,750
13.	Primary Containment Temp Monitor	30,000
14.	Maintenance Platforms	4,500
15.	Core Spray System Increased Flow	3,600
16.	Chlorination System Upgrade	3,900
17.	RBCCW Hx Retubing	19,500
18.	Intake Conduit Replacement	6,750
19.	Reroute RWCU Return Line to FW Sys.	9,600
20.	Modify Vacuum Priming System	2,400
21.	Upgrade Pump Room HVAC	13,500

OYSTER CREEK STATIONTENTATIVE NON-REGULATORY INITIATED MODS. DURING CYCLE 11 ('85) OUTAGE

<u>S. No.</u>	<u>Title</u>	<u>Man Hours</u>
22.	Additional DG Fuel Storage Tank	2,100
23.	Control DC Power for 34 & 230 KU Bkrs.	4,200
24.	RWCU System Main Pumps Upgrade	6,000
25.	Condensate Demineralizers Upgrade	<u>4,500</u>
	TOTAL =	221,790

Total No. of Items = 25

OYSTER CREEK STATIONTENTATIVE REGULATORY INITIATED MODS. DURING CYCLE 11 ('85) OUTAGE

<u>S. No.</u>	<u>Title</u>	<u>Man Hours</u>
1.	SEP Environ. Qual. Safety Related Elec. Equip.	12,000
2.	ECCS System Improvement Mods - Sparger	510,000
3.	Plant Computer & Emergency Response Facility Data System	10,500
4.	Containment Vent & Purge System Upgrade	45,000
5.	Rx Protection Motor Generator Sets 1.1 & 1.2	1,500
6.	125 VDC System Upgrade Phase 3	3,000
7.	Appendix R Modifications	177,000
8.	RCS Vent on Isolation Condenser	19,500
9.	Rx Protection System Analog Upgrade	30,000
10.	Anchor & Supt. of Safety Rel. Elec. Equip. (SEP)	60,000
11.	Cont. High Range Radiation Monitor	3,600
12.	Recirc. Valves Interlock Mod.	3,600
13.	Radiation Signals Purge & Vent Valves	2,100
14.	NUREG 0696 Emergency Resp./NSE Facilities	21,000
15.	SEP Required Mods/General	<u>87,000</u>
	TOTAL =	985,800
	GRAND TOTAL FOR ALL MODS =	1,207,500

Total No. of Items = 15