



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

March 20, 1987

Docket No. 50-219

Mr. P. B. Fiedler
Vice President and Director
Oyster Creek Nuclear Generating Station
Post Office Box 388
Forked River, New Jersey 08731

Dear Mr. Fiedler:

SUBJECT: FIRE PROTECTION TECHNICAL SPECIFICATIONS (TSCR 155, TAC 63770)

Re: Oyster Creek Nuclear Generating Station

The Commission has issued the enclosed Amendment No. 114 to Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station. This amendment is in response to your application dated November 7, 1986.

The amendment revises Sections 3.12 and 4.12, Fire Protection, of the Appendix A Technical Specifications (TS), regarding fire protection and the Alternate Shutdown Facility. Specifically, the approved changes to the TS are the following:

- (1) Add Sections 3.12.I/4.12.I and Tables 3.12-6/4.12-1, the Limiting Conditions for Operation (LCO) and the Surveillance Requirements for the operability of the Alternate Shutdown Facility.
- (2) Revise Table 3.12-1 "Fire Detection Instrumentation" to include new detectors which have been added, new fire area/zone designations, and new detection systems.
- (3) Revise Table 3.12-2 "Spray/Sprinkler Systems" to include new fire suppression systems and new fire area/zone designations.
- (4) Revise Table 3.12-3 "Hose Stations" and Table 3.12-5, "Hydrants and Hose Houses" to include new fire area/zone designations.
- (5) Revise Table 3.12-4 "Halon Systems" to include changes in the 480 Volt Switchgear Room Halon System and new fire area/zone designations.

The staff has evaluated your justification to not submit TS on the passive air accumulators and spare air bottle. This was requested by the staff in its letter dated March 24, 1986, Exemptions From Requirements of Appendix R to 10 CFR Part 50, Section III.G.2 and the Post Fire Safe Shutdown Capability. The staff concludes that these TS are not needed.

You have also requested additional exemptions to Appendix R in your letter dated August 25, 1986, which were discussed in the meeting of June 23, 1986, at the plant site. This request will be the subject of a future letter from the staff when the evaluation is completed.

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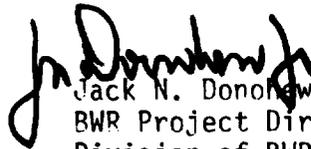
Mr. P. B. Fiedler

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March 20, 1987

As discussed in the enclosed Safety Evaluation, you are requested within 90 days of the receipt of this letter to propose additional TS concerning transfer switches and control circuits for the Alternate Shutdown Facility and requiring the plant to shut down if the Facility is inoperable for more than 7 days or provide sufficient justification for not proposing these TS. This has been discussed with Mr. M. Laggart of GPU Nuclear (the licensee). The Notice of Issuance for this amendment will be included in the Commission's biweekly Federal Register notices.

Sincerely,



Jack N. Donohew, Jr., Project Manager
BWR Project Directorate #1
Division of BWR Licensing

Enclosures:

- 1. Amendment No. 114 to License No. DPR-16
- 2. Safety Evaluation

cc w/enclosures:
See next page

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Mr. P. B. Fiedler
Oyster Creek Nuclear Generating Station

Oyster Creek Nuclear
Generating Station

cc:

Mr. Ernest L. Blake, Jr.
Shaw, Pittman, Potts and Trowbridge
2300 N Street, NW
Washington, D.C. 20037

Resident Inspector
c/o U.S. NRC
Post Office Box 445
Forked River, New Jersey 08731

J.B. Liberman, Esquire
Bishop, Liberman, Cook, et al.
1155 Avenue of the Americas
New York, New York 10036

Commissioner
New Jersey Department of Energy
101 Commerce Street
Newark, New Jersey 07102

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

Mr. David M. Scott, Acting Chief
Bureau of Nuclear Engineering
Department of Environmental Protection
CN 411
Trenton, New Jersey 08625

RWR Licensing Manager
GPU Nuclear Corporation
1 Upper Pond Road
Parsippany, New Jersey 07054

Deputy Attorney General
State of New Jersey
Department of Law and Public Safety
36 West State Street - CN 112
Trenton, New Jersey 08625

Mayor
Lacey Township
818 West Lacey Road
Forked River, New Jersey 08731

Licensing Manager
Oyster Creek Nuclear Generating Station
Mail Stop: Site Emergency Bldg.
P. O. Box 388
Forked River, New Jersey 08731



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

GPU NUCLEAR CORPORATION

AND

JERSEY CENTRAL POWER & LIGHT COMPANY

DOCKET NO. 50-219

OYSTER CREEK NUCLEAR GENERATING STATION

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 114
License No. DPR-16

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by GPU Nuclear Corporation and Jersey Central Power and Light Company (the licensees) dated November 7, 1986, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Provisional Operating License No. DPR-16 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 114, are hereby incorporated in the license. GPU Nuclear Corporation shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Jack N. Donohew, Jr., Project Manager
BWR Project Directorate #1
Division of BWR Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 20, 1987

ATTACHMENT TO LICENSE AMENDMENT NO. 114
PROVISIONAL OPERATING LICENSE NO. DPR-16
DOCKET NO. 50-219

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by the captioned amendment number and contain vertical lines indicating the area of change.

REMOVE

3.12-4
3.12-5
3.12-6
3.12-7
3.12-8
3.12-9
3.12-10
3.12-11
- - -
4.12-5
- - -

INSERT

3.12-4
3.12-5
3.12-6
3.12-7
3.12-8
3.12-9
3.12-10
3.12-11
3.12-12
4.12-5
4.12-6

G. Carbon Dioxide (CO2) System

1. The 4160 Volt Switchgear CO2 system shall be operable with a minimum level greater than or equal to 1/2 full and a minimum pressure of 275 psig in the associated storage tank.
2. With the CO2 system inoperable, within one hour establish a continuous* fire watch with backup fire suppression equipment.
3. Restore the system to operable status within 14 days or prepare and submit a Special Report to the Commission, in lieu of any other report required by Section 6.9, within the next 30 days outlining the action taken, the cause of inoperability and the plans/schedule for restoring the system to operable status.

H. Yard Fire Hydrants and Hydrant Hose Houses

1. The yard hydrants and associated hose houses listed in Table 3.12.5 shall be operable.
2. With one or more of the yard hydrants or associated hydrant hose houses shown in Table 3.12.5 inoperable, within one hour have sufficient additional lengths of 2 1/2 inch diameter hose located in an adjacent operable hydrant hose house to provide service to the unprotected area(s) if the inoperable fire hydrant or associated hydrant hose house is the primary means of fire suppression; otherwise, provide the additional hose within 24 hours.
3. Restore the hydrant or hose house to operable status within 14 days or prepare and submit a special report to the Commission, in lieu of any other report required by Section 6.9, within the next 30 days outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the hydrant or hose house to operable status.

I. Alternate Shutdown Monitoring Instrumentation

1. The alternate shutdown monitoring instruments listed in Table 3.12-6 shall be operable during reactor power operations and when reactor coolant temperature exceeds 212°F.
2. With less than the minimum number of operable channels specified in Table 3.12-6, either restore the inoperable channel to operable status within 30 days, or be in at least hot shutdown within the next 12 hours and in cold shutdown within the following 24 hours.

*In those areas which represent a radiation, airborne, or industrial safety hazard; an hourly fire watch patrol will be initiated in lieu of the continuous fire watch.

Basis:

Fire Protection systems and instrumentation provide for early detection and rapid extinguishment of fires in safety related areas thus minimizing fire damage. These specifications will assure that in the event of inoperable fire protection equipment, corrective action will be initiated in order to maintain fire protection capabilities during all modes of reactor operation.

The pumps in the fire water suppression system have a capacity of 2000 GPM each assuring an adequate supply of water to fire suppression systems. Fire suppression water system operability as defined in 3.12.B.1 applies only as pertains to specification 3.12 and is not applicable to other specifications.

Hose stations are provided for manual fire suppression. In the event that a hose station becomes inoperable, additional fire suppression equipment will be provided.

TABLE 3.12.1 FIRE DETECTION INSTRUMENTATION

<u>Fire Area/Zone</u>	<u>Location</u>	<u>Detector Zone</u>	<u>Required # of Detectors</u>
RB-FZ-1A	Rx. Bldg. 119' elev.	Sprinkler Sys. #10	1 (WFS)
RB-FZ-1B	" 95' "	NA	24*
RB-FZ-1C	" 75' "	NA	22*
RB-FZ-1D	" 51' "	Sprinkler Sys. #11	1 (WFS)
		RK01/RK02	2
		1 - North	6 +
		2 - North	7 +
		1 - South	6 +
RB-FZ-1G	" 38'/51' "	Shutdown Pump Rm.	7
		1 - North	7 +
RB-FZ-1E	" 23' "	2 - North	6 +
		1 - South	6 +
		2 - South	6 +
		NA	4 (1 per corner room.)
TB-FA-3A	4160 Swgr. ** Rm.	Vault "C"	1
TB-FA-3B	" "	Vault "D"	1
TB-FZ-11C	4160 Swgr. Rm.	Gen. Area	5
TB-FA-26	4160 Swgr. Rm.	"C" Battery Rm.	1
OB-FZ-4	Cable Spread Rm.	4A-Zone 1	3 +
		4A-Zone 2	3 +
		4B-Zone 3	4 +
		4B-Zone 4	5 +
OB-FZ-5	Control Room	Gen. Area	6
		A-Zone 1	3 +
		A-Zone 2	3 +
		B-Zone 1	7*+
		B-Zone 2	7*+
		C-Zone 1	1 +
		C-Zone 2	1 +
		Duct	1

**switchgear

TABLE 3.12.1 FIRE DETECTION INSTRUMENTATION

<u>Fire Area/Zone</u>	<u>Location</u>	<u>Detector Zone</u>	<u>Required # of Detectors</u>
OB-FZ-6A	480 Swgr.** Rm.	Zone 3	7 +
	"	Zone 4	6 +
OB-FZ-6B	480 Swgr. Rm.	Zone 1	3 +
	"	Zone 2	3 +
	"	Corridor	2
OB-FZ-8C	"A" & "B" Battery Rm.	Zone 1	4 +
	"	Zone 2	4 +
	"	Zone 4 (Duct)	1 +
OB-FZ-8A	MG Set Rm.	NA	1 (WFS)
OB-FZ-10A	Monitor & Control Area	Below Ceiling	2
	"	Above Ceiling	10*
	"	Sprinkler Sys. #12	1 (WFS)
	"	Hallway and Stairway	3
TB-FZ-11E	Condenser Bay	Sprinkler Sys. #2	1 (P.S.)
TB-FZ-11B	Turbine Lube Oil	Deluge Sys. #3	1 (P.S.)
TB-FZ-11D	Turbine Basement South	Sprinkler Sys. 9	1 (WFS)
MT-FA-12	Transformers	Deluge Sys. #1	1 (P.S.)
	"	Deluge Sys. #2	1 (P.S.)
DG-FA-15	Emer. Diesel #1	Thermal	5
	"	Ionization	1
FS-FA-16	Fuel Storage Area	NA	1
DG-FA-17	Emer. Diesel #2	Thermal	5
	"	Ionization	1
FW-FA-18	Fire Water Pump House	NA	4 +
OB-FZ-22A	Upper Cable Spread Room	Zone 1	12 (1 WFS)
OB-FZ-22B	Cable Bridge Tunnel	NA	7 (1 WFS)
OB-FZ-22C	"	NA	7 (1 WFS)

*No two adjacent detectors may be inoperable.

WFS - Water Flow Switch

P.S. - Pressure Switch

+These detectors actuate automatic suppression systems

TABLE 3.12.2 SPRAY/SPRINKLER SYSTEMS

<u>Fire Area</u>	<u>Location</u>	<u>System</u>
RB-FZ-1A	Rx. Bldg. 119' elev.	Sprinkler Sys. #10
RB-FZ-1B	Rx. Bldg. 75' elev.	Sprinkler Sys. #11
RB-FZ-1D	Rx. Bldg. 51'-N	Deluge Sys. #5
	" -S	Deluge Sys. #6
RB-FZ-E	Rx. Bldg. 23'-N	Deluge Sys. #7
	" -S	Deluge Sys. #8
OB-FZ-4	Cable Spread Room	Deluge Sys. #4A
	"	Deluge Sys. #4B
OB-FZ-8A	MG Set Room	Sprinkler Sys. #4
OB-FZ-10A	Monitor & Control Area	Sprinkler Sys. #12
TB-FZ-11E	Condenser Bay	Sprinkler Sys. #2
TB-FZ-11B	Turbine Lube Oil Bay	Deluge Sys. #3
TB-FZ-11D	Turbine Basement South	Sprinkler Sys. #9
MT-FA-12	Transformers	Deluge Sys. #1
	"	Deluge Sys. #2
FW-FA-18	Fire Water Pump House	Deluge Sys. #9
OB-FZ-22A	Upper Cable Spread Rm.	Sprinkler Sys. #15
OB-FZ-22B & -22C	Cable Bridge Tunnels	Manual pre-action Sprinkler Sys. #16

TABLE 3.12.3 HOSE STATIONS

<u>Fire Area/Zone</u>	<u>Hose Station No.</u>	<u>Locations</u>
TB-FZ-11D	3	Turbine Basement - S
TB-FZ-11D	4	Turbine Basement - S
TB-FZ-11B	8	Turbine Basement - N
TB-FZ-11B	9	Turbine Basement - N
TB-FZ-11E	10	Condenser Bay
TB-FZ-11E	11	Condenser Bay
TB-FZ-11E	12	Condenser Bay
TB-FZ-11E	13	Condenser Bay
RB-FZ-1E	29	Rx Bldg. 23' elev.
RB-FZ-1E	30	Rx Bldg. 23' elev.
RB-FZ-1E	31	Rx Bldg. 23' elev.
RB-FZ-1E	32	Rx Bldg. 23' elev.
RB-FZ-1E	33	Rx Bldg. 23' elev.
RB-FZ-1F3	34	Rx Bldg. -19' elev.
RB-FZ-1F2	35	Rx Bldg. -19' elev.
RB-FZ-1F4	36	Rx Bldg. -19' elev.
RB-FZ-1F1	37	Rx Bldg. -19' elev.
RB-FZ-1D	38	Rx Bldg. 51' elev.
RB-FZ-1D	39	Rx Bldg. 51' elev.
RB-FZ-1D	40	Rx Bldg. 51' elev.
RB-FZ-1D	41	Rx Bldg. 51' elev.
RB-FZ-1C	42	Rx Bldg. 75' elev.
RB-FZ-1C	43	Rx Bldg. 75' elev.
RB-FZ-1C	44	Rx Bldg. 75' elev.
RB-FZ-1C	45	Rx Bldg. 75' elev.
RB-FZ-1B	46	Rx Bldg. 95' elev.
RB-FZ-1B	47	Rx Bldg. 95' elev.
RB-FZ-1B	48	Rx Bldg. 95' elev.
RB-FZ-1B	49	Rx Bldg. 95' elev.
RB-FZ-1A	50	Rx Bldg. 119' elev.
RB-FZ-1A	51	Rx Bldg. 119' elev.
OB-FZ-4	52	Cable Room
OB-FZ-5	53	Control Room
OB-FZ-10B	54	Chem. Lab.
TB-FZ-11D	55	Turbine Basement S
OB-FZ-22B	64	Cable Bridge Tunnel

TABLE 3.12.4 HALON SYSTEM

<u>Halon 1301 Sys.</u>	<u>Fire Area</u>	<u>Location</u>	<u>Min. No. of Charged Tanks</u>
1. Battery Room A & B	OB-FZ-8C	Battery Room (Office Bldg.)	1
Cable Tray Room		Chem. Lab. (Office Bldg.)	
2. 480 Volt Switchgear	OB-FZ-6A	23' elev. between Rx. Bldg. & Turb. Bldg.	2
	OB-FZ-6B	23' elev. between Rx. Bldg. & Turb. Bldg.	1
3. Control Room Panels (A & B) System	OB-FZ-5	Control Room	1
(C) System			1

TABLE 3.12-5 HYDRANTS AND HOSE HOUSES

<u>Hydrant No.</u>	<u>Hose House No.</u>	<u>Location</u>
3	5	Diesel Gen & Transformer Area
2	2	Intake Structure

TABLE 3.12-6 ALTERNATE SHUTDOWN

MONITORING INSTRUMENTATION

<u>Functional Unit</u>	<u>Readout Location</u>	<u>Min. Channels Operable</u>
Reactor Pressure	RSP	1
Reactor Water Level (fuel zone)	RSP	1
Condensate Transfer Pump Discharge Press	Local	1
Condensate Storage Tank Level	Local	1
Service Water Pump Discharge Press	Local	1
Control Rod Drive Sys Flow Meter	Rx 51', below RK02	1
Shutdown Cooling System Flowmeter	RK05	1
Isolation Condenser "B" Shell Water Level	RSP	1
Reactor Bldg. Closed Cooling Water Pump Discharge Pressure	Local	1

RSP-Remote Shutdown Panel

- c. At least once per 12 months by:
 - 1. Conducting a hose hydrostatic test and a pressure at least 50 psig greater than the maximum pressure available at any yard fire hydrant.
 - 2. Inspecting all the gaskets and replacing any degraded gaskets in the couplings.
 - 3. Performing a flow check of each hydrant to verify its operability.

I. Alternate Shutdown Monitoring Instrumentation

- 1. Each of the alternate shutdown monitoring channels shall be demonstrated operable by performance of the channel check and channel calibration operations at the frequencies shown in Table 4.12-1.

Basis:

Fire Protection systems are normally inactive and require periodic examination and testing to assure their readiness to respond to a fire situation. These specifications detail inspections and tests which will demonstrate that this equipment is capable of performing its intended function.

TABLE 4.12-1 ALTERNATE SHUTDOWN
MONITORING INSTRUMENTATION

<u>Functional Unit.</u>	<u>Channel Check</u>	<u>Channel Calibration</u>
Reactor Pressure	M	Q
Reactor Water Level (fuel zone)	n/a	Q
Condensate Transfer Pump Discharge Pressure	M	R
Condensate Storage Tank Level	M	R
Service Water Pump Discharge Pressure	M	R
Control Rod Drive Pump Flowmeter	M	R
Shutdown Cooling System Flowmeter	n/a	R
Isolation Condenser "B" Shell Water Level	M	R
Rx. Bldg. Closed Cooling Water Pump Discharge Pressure	M	R

M - Monthly

Q - Quarterly

R - Refueling outage



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 114 TO PROVISIONAL OPERATING LICENSE NO. DPR-16

GPU NUCLEAR CORPORATION AND

JERSEY CENTRAL POWER & LIGHT COMPANY

OYSTER CREEK NUCLEAR GENERATING STATION

DOCKET NO. 50-219

1.0 INTRODUCTION

By letter dated November 7, 1986, GPU Nuclear (the licensee) requested an amendment to Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station (Oyster Creek). The amendment would revise Sections 3.12 and 4.12, Fire Protection, of the Appendix A Technical Specifications (TS), regarding fire protection and the Alternate Shutdown Facility. Specifically, the approved changes to the TS are the following:

- (1) Add Sections 3.12.I/4.12.I and Tables 3.12-6/4.12-1, the Limiting Conditions for Operation (LCO) and the Surveillance Requirements for the operability for the Alternate Shutdown Facility.
- (2) Revise Table 3.12-1 "Fire Detection Instrumentation" to include new detectors which have been added, new fire area/zone designations, and new detection systems.
- (3) Revise Table 3.12-2 "Spray/Sprinkler Systems" to include new fire suppression systems and new fire area/zone designations.
- (4) Revise Table 3.12-3 "Hose Stations" and Table 3.12-5, "Hydrants and Hose Houses" to include new fire area/zone designations.
- (5) Revise Table 3.12-4 "Halon Systems" to include changes in the 480 Volt Switchgear Room Halon System and new fire area/zone designations.

2.0 DISCUSSION AND EVALUATION

The licensee has proposed changes to the TS to incorporate new requirements related to the Alternate Shutdown Facility which was installed during the Cycle 11 Refueling (Cycle 11R) outage to comply with the requirements of 10 CFR Part 50, Appendix R. Also, additional changes were requested by the licensee to reflect changes in plant fire protection features due to changes made by the licensee at the plant.

The Alternate Shutdown Facility has been reviewed by the NRC staff. The staff's Safety Evaluation accepting the design was issued on March 24, 1986. The staff reviewed the licensee's proposed Alternate Shutdown Facility for Oyster Creek in accordance with Appendix R criteria. Based on that review, it concluded that the performance goals for accomplishing safe shutdown in the event of a fire, i.e., reactivity control, inventory control, decay heat removal, pressure control, process monitoring and support functions were met by the proposed alternate safe shutdown facility. Therefore, the staff concluded that the requirements of Appendix R, Sections III.G.3 and III.L were satisfied by the facility.

The evaluation of the licensee's proposed changes to Sections 3.12 and 4.12, Fire Protection, is given below. The evaluation is based on the information provided in the licensee's November 7, 1986 application. This evaluation is separated into the five changes listed in Section 1.0 above.

Sections 3.12.I/4.12.I; Tables 3.12-6/4.12-1

The licensee has proposed changes to Section 3.12 and 4.12 of the TS to add limiting conditions for operation and surveillance requirements for the Alternate Shutdown Facility monitoring instrumentation. This is adding TS Section 3.12.I to require (1) the instrumentation to be operable during plant power operations and when reactor coolant temperature is above 212°F and (2) the reactor to be shut down if the instrumentation is not operable. The instrumentation is listed in proposed Table 3.12-5. This is also adding TS Section 4.12.I to require periodic surveillance of the channels for this instrumentation. The frequency of surveillance and the surveillance checks are listed in proposed Table 4.12-1.

The licensee stated that the Alternate Shutdown Facility was installed in compliance with Appendix R to 10 CFR Part 50 to provide an alternate means of achieving and maintaining safe reactor shutdown in the unlikely event of a fire in the control room or the associated cable spreading rooms. The Facility was designed to eliminate any impact on the probability or consequences of other accidents evaluated for Oyster Creek. Isolation and electrical separation is provided in the Alternate Shutdown Facility by providing key locked switches and electrical circuit isolators to assure that normal and emergency plant operations (other than fire) are unaffected by the Facility. Operation of the facility during a fire condition is accomplished by operation of the key locked switches which transfers control functions to the Facility while disconnecting and isolating these functions in the area affected by the fire.

The licensee explained that the Alternate Shutdown Facility provides a similar means of control for achieving safe shutdown as that which could be accomplished from the control room. The Facility utilizes existing plant systems and established design capabilities. The isolation and electrical separation assures that operation from the control room will be unaffected during normal or emergency (other than fire) conditions. Where the Facility interfaces with safety systems, the licensee stated either qualified electrical isolators are provided or the interfacing circuits and equipment is designed to safety-grade standards.

The licensee explained further that isolation and electrical separation of the Alternate Shutdown Facility assures the existing capabilities are retained to mitigate and/or prevent accidents as that which existed prior to installation of the Facility. The installation of this facility increases the margin of safety by providing a means to improve safe shutdown capability in the event of a fire in the control room or cable spreading rooms.

The staff has reviewed the licensee's proposed TS 3.12.I, 4.12.I, Table 3.12-6 and Table 4.12-1 on the Alternate Shutdown Facility in its application dated November 7, 1986. These proposed TS have been compared to the TS on the remote shutdown monitoring system in the BWR Standard Technical Specifications (STS), NUREG-0123, Revision 4. The BWR STS apply to Oyster Creek for its Alternate Shutdown Facility and provide an example of acceptable TS for this facility. The remote shutdown monitoring system at Oyster Creek is the Alternate Shutdown Facility.

The licensee's proposed TS are consistent with or more conservative than the BWR STS except for the following: (1) the licensee proposes to restore the inoperable channels to operable status within 30 days or shut down instead of within 7 days in the BWR STS, (2) the licensee did not propose for Tables 3.12-6 and 4.12-1 the list of the transfer switches for required surveillance and (3) the licensee did not propose for Tables 3.12-6 and 4.12-1 the list of control circuits for required surveillance. The transfer switches are to transfer control from the control room to the Alternate Shutdown Facility. The control circuits are the circuits to control systems and equipment from the facility. The channel check cannot be done on the fuel zone reactor water level instrument and shutdown cooling system flowmeter instrument in Table 4.12-1 because the fuel zone instrumentation does not work during power operation when the recirculation pumps are working and the flowmeter does not work until shutdown cooling is in operation. This was provided in a phone call with the licensee on February 24, 1987.

The licensee has not provided justification for proposing that the Alternate Shutdown Facility may be inoperable for 30 days instead of 7 before shutting down and not proposing the transfer switches and control circuits for Tables 3.12-6 and 4.12-1 and revising the limiting conditions for operation and surveillance requirements in TS 3.12.I and 4.12.I to include transfer switches and control circuits. Because there are no existing TS on the Alternate Shutdown Facility, the licensee's proposed TS are acceptable until the licensee's justification based on the Oyster Creek-specific fire protection system for the control room can be evaluated. The licensee will be requested to propose new TS or provide its justification within 90 days.

Table 3.12.1

The proposed changes to Table 3.12.1, Fire Detection Instrumentation, are to (1) provide new designations for the fire area/zones, (2) change the description of the location of the OB-FZ-10A fire zone, (3) add six detector zones with their fire area/zone designations and required number of detectors, (4) reduce the required number of detectors for fire zone OB-FZ-6B, 480 switchgear room, zones 1 and 2, to account for the fact that this room has been divided into two fire zones, OB-FZ-6A and OB-FZ-6B and (5) increase the total number of required detectors for the combined fire zones OB-FZ-6A and OB-FZ-6B.

The licensee stated that additional fire detectors were added to existing fire detection systems to provide coverage for safety-related and safe shutdown related cabling. The proposed changes to the table included new detection systems which were installed for the upper cable spread room and cable bridge tunnels. These additions have been designed consistent with similar fire protection features provided in other areas of the plant and in accordance with the applicable requirements of 10 CFR Part 50, Appendix R. The fire detectors and fire detection systems alert operators to a possible fire condition and in some cases initiate fire suppression systems. Protection of safety-related equipment from inadvertent operation of fire suppression systems is provided where necessary.

The licensee explained that periodic updates of the plant Fire Hazards Analysis (FHA) have resulted in new fire area/zone designations to more accurately identify the characteristics of these areas. These changes are administrative in nature and do not affect plant normal or emergency operations.

The licensee further explained that new fire detectors added to existing fire detection systems and the new detection systems are designed to the same requirements and criteria as existing fire detection systems throughout the plant. These additions improve fire detection capabilities and maintain the existing margin of safety. The fire area/zone designation changes have no effect on plant operations nor fire suppression capability.

The staff has evaluated the licensee's proposed changes to Table 3.12.1. The proposed changes are to establish new fire area/zone designations in the TS, more accurately describe the detector zones and identify the additional fire detectors added to existing fire detection systems. These are administrative changes to the TS to properly describe the Oyster Creek fire detection instrumentation and are acceptable to the staff.

Table 3.12.2

The proposed changes to Table 3.12.2 are to (1) provide new designations for the fire areas and (2) add two water suppression systems to the table. The new fire area designations are those in the FHA for Oyster Creek. The fire areas are not changing. The additional fire suppression systems are for the upper cable spread room and the cable bridge tunnels.

The licensee explained that the water suppression systems provided for the upper cable spread room and cable bridge tunnels were designed and installed consistent with similar systems in other plant areas and in accordance with 10 CFR Part 50, Appendix R. The application of water to the cables used in the plant does not result in cable degradation. Provisions have been made by the licensee to protect safety-related equipment from the effects of inadvertent operation of suppression systems and water runoff.

The licensee further explained that periodic updates of the FHA have resulted in new fire area/zone designations to more accurately identify the characteristics of these areas. These changes are administrative in nature and do not affect plant normal or emergency operations.

The licensee stated that the new fire suppression systems are designed and installed to the same requirements and criteria as existing suppression systems throughout the plant. The addition of these systems maintains the margin of safety established. The fire area/zone designation changes have no effect on plant operations nor fire suppression capability.

The staff has evaluated the licensee's proposed changes to Table 3.12.2. The proposed changes are to establish new fire area/zone designations in the TS, more accurately identify the location of the spray or sprinkler systems and add two additional sprinkler systems. These are administrative changes to the TS to properly describe the Oyster Creek spray or sprinkler systems and are acceptable to the staff.

Table 3.12.3 and Table 3.12-5

The proposed changes to Table 3.12.3, Hose Stations, and Table 3.12-5, Hydrants and Hose Houses, are to (1) provide new designations for the fire areas/zones, (2) add an additional hose station, (3) revise the description of the location of the hose station to spell out the word turbine and add the word elevation to the locations in the reactor building.

The licensee stated that the proposed changes only reflect administrative revisions to fire area/zone designations. The revised designations clarify fire area/zone locations and characteristics of these fire areas/zones. The proposed changes also identify the additional hose station added to the plant. These changes are administrative in nature and do not materially affect any plant systems, operation, or analyses. These proposed changes are acceptable to the staff.

Table 3.12.4

The proposed changes to Table 3.12-4, Halon System, are to (1) provide new designations for the fire areas, (2) acknowledge the 480 volt switchgear room has been divided into two fire areas, (3) revise the location of but do not reduce the minimum number of charged tanks of halon and (4) acknowledge the halon system for the control room panels is two separate systems.

In order to comply with 10 CFR Part 50, Appendix R, the licensee stated that it divided the 480 volt switchgear room into two fire areas separated by a 1-hour fire barrier. The existing halon system for this area was modified by the licensee to provide independent fire suppression capability for each zone in this area. The modification was designed in accordance with applicable requirements and design criteria that was previously invoked for this area prior to the installation of the fire barrier.

The licensee explained that changes to fire area/zone designations are administrative in nature and do not affect any plant systems, operations, or analysis except that two new fire zones have been established to identify additional separation of safety-related and safe shutdown systems and components. The changes modify the area of coverage but do not affect any operational characteristics or operational parameters. The modification has been designed consistent with similar fire protection features in other areas of the plant.

The staff has evaluated the licensee's proposed changes to Table 3.12.4. The proposed changes are to establish new fire area/zone designations in the TS, more accurately identify the location of the halon systems and to properly show the minimum number of charged halon tanks for each location. These are administrative changes to the TS to properly describe the Oyster Creek halon system and are acceptable to the staff.

Technical Specifications (TS) On Accumulators Not Needed

In its application dated November 7, 1986, the licensee provided its justification for not submitting TS on the minimum open-close cycles for the accumulators and the accessibility of local air cylinders, to be provided for the air operated valves. The staff requested these TS in its letter dated March 24, 1986.

The licensee stated that the air accumulators are passive components not subject to operational controls. The design is integral to the instrument air system and provides a backup source of air pressure to operate the isolation condenser control valve if needed for a minimum of 10 valve cyclings. The licensee's analysis shows only 6 cyclings are needed. The spare air bottle is in the local area of the accumulators and provides for additional cycling of the valves. This is further assurance that pressurized air is available. The accumulators and the spare bottle was seen by the NRC Project Managers in a tour of the Reactor Building on February 5, 1987.

Based on the above, the staff concludes that TS are not needed for the accumulators and spare air bottle.

Conclusion

As discussed above, the staff has concluded that the licensee's proposed amendment to the TS in its application dated November 7, 1986, is acceptable. The staff, however, requests that the licensee propose the following additional TS: (1) add transfer switches and control circuits for the Alternate Shutdown Facility to Tables 3.12-6 and 4.12-1, (2) revise the limiting conditions for operation and surveillance requirements in TS 3.12.I and 4.12.I to include the transfer switches and control circuits and (3) require the plant to shut down if the Alternate Shutdown Facility is inoperable for more than 7 days. The licensee will propose these TS or provide sufficient justification that the TS in its application are sufficient.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes to the surveillance requirements. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement nor environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security nor to the health and safety of the public.

5.0 REFERENCES

1. Letter from P. B. Fiedler (GPUN) to Director, NRR, NRC, TSCR No. 155, dated November 7, 1986.
2. Telephone conversation between J. Donohew (NRC) and E. Bush (GPUN), dated February 24, 1987.

Principal Contributor: J. Donohew

Dated: March 20, 1987.