

August 23, 1984

Docket No. 50-219  
LS05-84-08-036

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

Dear Mr. Fiedler:

SUBJECT: SCHEDULAR EXEMPTION - COMPLIANCE WITH 10 CFR 50.48(c)(4)  
FIRE PROTECTION

Re: Oyster Creek Nuclear Generating Station

The Commission has issued the enclosed exemption to the schedular requirements for fire protection of the equipment used for safe shutdown by means of separation and barriers as set forth in 10 CFR Part 50.48(c)(4). The exemption is effective until the startup from the Cycle 11 refueling outage.

This exemption has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Original signed by

Walter A. Paulson, Acting Chief  
Operating Reactors Branch #5  
Division of Licensing

Enclosure:  
Exemption

cc w/enclosure:  
See next page

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(EX 51)

Mr. P. B. Fiedler

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August 23, 1984

cc

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Licensing Supervisor  
Oyster Creek Nuclear Generating Station  
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Forked River, New Jersey 08731

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of  GPU NUCLEAR CORPORATION AND JERSEY CENTRAL POWER & LIGHT COMPANY  (Oyster Creek Nuclear Generating Station)	) ) ) )	Docket No. 50-219
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EXEMPTION

I.

The GPU Nuclear Corporation and Jersey Central Power & Light Company (the licensees) are holders of Provisional Operating License No. DPR-16 which authorizes operation of the Oyster Creek Nuclear Generating Station. The license provides among other things, that it is subject to all rules, regulations and Orders of the Commission now or hereafter in effect.

The facility comprises one boiling water reactor located in Ocean County, New Jersey.

II.

On November 19, 1980, the Commission published a revised Section 10 CFR 50.48 and a new Appendix R to 10 CFR Part 50 regarding fire protection features of nuclear power plants (45 FR 76602). The revised Section 50.48 and Appendix R became effective on February 17, 1981. Section 50.48(c) established the schedules for satisfying the provisions of Appendix R. Section III of Appendix R contains fifteen subsections, lettered A through O, each of which specifies requirements for a particular aspect of the fire protection features at a nuclear power plant. One of these fifteen subsections, subsection III.G., is the subject of this exemption request.

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Subsection III.G specifies detailed requirements for fire protection of the equipment used for safe shutdown by means of separation and barriers (III.G.2). If the requirement for separation and barriers could not be met in an area, reasonable interim compensatory measures and/or procedures must be provided in order to grant schedular exemptions from the implementation schedules of 10 CFR 50.48. The schedular requirements of 10 CFR 50.48(c)(4) call for the implementation of modifications before startup after the earliest of the following events commencing 180 days after Commission approval:

- (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.

For Oyster Creek this would be the end of the current Cycle 10 refueling outage.

In a submittal dated July 11, 1984, the licensees requested that the implementation schedule for the proposed fire protection modifications in thirteen fire areas at Oyster Creek be extended until the end of the Cycle 11 refueling outage scheduled for the fall of 1985.

### III.

Reasonable interim post-fire safe shutdown capability or interim fire protection measures must be provided in order to grant schedular exemptions from the implementation schedules of 10 CFR 50.48. By letter dated July 11, 1984 the licensees requested an exemption from 10 CFR 50.48(c)(4) and provided interim measures for the thirteen involved fire areas of the Oyster

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Creek plant. The thirteen areas are the reactor building (elevation 51 and 23 feet), 1C4160V emergency switchgear vault, 480V switchgear room, MG set room (elevation 35 feet), A and B battery room, tunnel and tray room, office building, monitoring and change room area, turbine lube oil storage, pumping and purification area, switchgear room (west end of turbine building on mezzanine level), basement floor south end, condenser bay, and circulating water intake area. The areas and respective compensatory measures are identified in Appendix A of the July 11, 1984 submittal.

For those fire areas of the plant which require modifications that are affected by the schedular extension, the licensee verified that the following shutdown functions would be available following a fire: reactivity control, primary system make-up control, primary system pressure control, decay heat removal, process monitoring, and support services. If one of these shutdown functions could be potentially lost due to a fire, a procedure to restore the shutdown function was provided using alternate systems. These emergency shutdown procedures constitute the interim shutdown capability in the event of loss of shutdown functions in fire areas FA-3A, 1C4160V emergency switchgear vault, and FA-9, office building.

In the event of fire in FA-3A, controls for drywell cooling are subjected to degradation. As the alternate containment spray and emergency service water systems for cooling will be available, the reactor can be brought to cold shutdown conditions with the unaffected onsite powered systems by utilizing emergency operating procedures. A fire in this area will not affect the safe shutdown of the plant.

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In the event of fire in FA-9, controls for two electro-motive relief valves (EMRV's) and the shutdown cooling system are subjected to degradation. A fire in this area will not affect the safe shutdown of the plant. If the two EMRV's stick open, the reactor make-up can be provided by the core spray system and cooling provided by the emergency service water system. If the two EMRV's remain closed, it will have no effect on the safe shutdown of the plant as the other three EMRV's will be available for depressurization. The reactor can be brought to cold shutdown conditions with the above unaffected onsite powered systems by utilizing emergency operating procedures.

In eleven of the areas interim shutdown procedures are not available; they are (1) FZ-1E, reactor building, 23 foot level, (2) FA-6, 480V switchgear room, (3) FZ-8A, MG set room, 35 foot level, (4) FZ-8C, A and B battery room, tunnel and tray room, (5) FZ-10A, monitoring and change room areas, (6) FZ-11D, basement floor south end, (7) FZ-11E, condenser bay, (8) FA-14, circulating water intake, (9) FZ-1D, reactor building, 51 foot level, (10) FZ-11C, switchgear room, west end of turbine building on mezzanine level, and (11) FZ-11B, turbine lube oil storage, pumping and purification area. The licensees indicate that in each of these areas, the vulnerable systems will be protected by either a continuous fire watch or an automatic fire detection and suppression system.

In FA-14, FZ-1D, FZ-11C, and FZ-11B, a continuous fire watch will be provided until such time that supplemental procedures to the Emergency Operating Procedures (EOPs) are developed. The fire watch consists of the area being continuously monitored by security guards in addition to the area being monitored 24 hours a day by TV cameras. This provides reasonable

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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. Under these circumstances, fire damage will be limited, and no loss of safe shutdown capability should occur.

The remaining seven areas identified above are protected by automatic fire detection and suppression systems. It is the staff's opinion that fires in these areas would be discovered in their initial stage, and would be suppressed by the plant fire brigade. If the fire should propagate rapidly, the automatic fire suppression system should activate to protect the vulnerable systems until eventual extinguishment and no loss of shutdown capability should occur. The additional modifications to be made will ensure that safe shutdown capability will be protected if the suppression system should fail to activate.

For the considerations discussed above, the staff concludes that the licensees have provided reasonable and acceptable interim post-fire safe shutdown capability or interim fire protection measures to support the requested schedular exemptions for the areas identified. Therefore, based on our evaluation the staff has concluded that the requested schedular exemption from the requirements of 10 CFR 50.48(c)(4) should be granted.

#### IV.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12, the schedular exemption requested by the licensees' letter of July 11, 1984 is authorized by law and will not endanger life or property or the common defense and security, and is otherwise in the public interest.

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The Commission hereby grants to the licensees an exemption from the schedular requirements of 10 CFR 50.48(c)(4) until prior to startup from the Cycle 11 refueling outage (1985).

Pursuant to 10 CFR 51.32 the Commission has determined that the issuance of the exemption will have no significant impact on the environment (August 23, 1984, 49 FR 33512).

This Exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland  
this 23 day of August 1984.