

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)	Docket No. 50-206
)	
SOUTHERN CALIFORNIA EDISON COMPANY)	License No. DPR-13
SAN DIEGO GAS AND ELECTRIC COMPANY)	
)	
San Onofre Nuclear Generating Station,)	
Unit No. 1)	

EXEMPTION

I.

Southern California Edison Company and San Diego Gas and Electric Company (the licensees) are the holders of Provisional Operating License No. DPR-13 which authorizes the licensees to operate San Onofre Nuclear Generating Station, Unit No. 1, at power levels up to 1347 megawatts thermal (rated power). The facility is a pressurized water reactor located on the licensees' site in San Diego County, California. The license is subject to all applicable provisions of the rules, regulations and orders of the Nuclear Regulatory Commission.

II.

10 CFR 50.48, "Fire Protection," and Appendix R to 10 CFR 50, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979," require that certain fire protection features be established to satisfy the General Design Criterion related to fire protection (Criterion 3, Appendix A to 10 CFR 50).

Section III.G of Appendix R requires that fire protection exist for equipment important to safe shutdown. Such fire protection is achieved by

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various combinations of fire barriers, fire suppression systems, fire detectors, and separation of safety trains (III.G.2) or alternate safe shutdown equipment free of the fire area (III.G.3). The objective of this protection is to ensure that one train of equipment needed for hot shutdown would be undamaged by fire, and that systems needed for cold shutdown can be repaired within 72 hours (III.G.1.b).

Section III.G.3 requires that a fixed fire suppression system be installed in an area for which alternate shutdown capability has been provided.

III.

By letter dated July 30, 1987 the licensees requested an exemption from the technical requirements of Section III.G.3 of Appendix R to the extent that it requires that a fixed fire suppression system be installed in an area for which an alternate shutdown capability has been provided. Specifically, the pipe tunnel (Fire Area 1-AB-11-34) is not protected by a fixed fire suppression system.

The physical configuration of the area, including perimeter construction, fire hazards and existing protection, is as described in the licensees' submittal. The licensees justify the exemption request on the basis of the low combustible loading, limited access, existing fire protection and the capability to safely shut down the plant with undamaged systems that are physically and electrically independent of the fire area.

The technical requirements of Section III.G.3 are not met in this area because of the lack of a fixed fire suppression system.

The principal concern with the existing fire protection in the pipe tunnel is that a fire of significant magnitude could occur which would damage redundant safe shutdown systems. However, the in-situ fire loading is low. If all of the combustibles were totally consumed by fire, the equivalent fire severity is about nine minutes as determined from the ASTM E-119 time-temperature curve.

The combustible inventory consists of cables in trays. A fire involving this material would be characterized, initially, by slow burning, low heat generation, and the production of moderate quantities of smoke. The smoke would be detected by the existing fire detection system which would transmit an alarm automatically to the control room. The on-site fire department would be dispatched to the scene and would put out the fire using manual fire fighting equipment.

If severe damage to safe shutdown systems occurred prior to the arrival of the fire department, a capability exists to safely shut down the plant which the licensees have affirmed is physically and electrically independent of the fire area. On this basis, the lack of a fixed fire suppression system is not considered safety significant.

Based on the above evaluation the staff concludes that the licensee's alternate fire protection configuration provides an equivalent level of safety to that achieved by compliance with Appendix R.

The purpose of Section III.G.3 of 10 CFR Part 50, Appendix R is to prevent a severe fire which could damage redundant safe shutdown systems. For the reasons discussed above, a fire suppression system in this area is not necessary. Consequently, special circumstances described by 10 CFR 50.12(a)(2)(ii) exist

in that application of the regulation in this particular circumstance is not necessary to achieve the underlying purpose of the rule.

IV.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12, this exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. The Commission further determines that special circumstances as provided in 10 CFR 50.12(a)(2)(ii) are present justifying the exemption.

Therefore, the Commission hereby approves the following exemption to Paragraph III.G.3 to Appendix R to 10 CFR Part 50:

Fire Area 1-AB-11-34 (Pipe Tunnel) is not required to have a fixed fire suppression system.

It is further determined that the exemption does not authorize a change in effluent types or total amounts nor an increase in power level and will not have a significant effect on the quality of the human environment. In light of this determination and as reflected in the Environmental Assessment and Finding of No Significant Impact prepared pursuant to 10 CFR 51.2 and 51.30 through 51.32, it is concluded the instant action is not significant from the standpoint of environmental impact and an environmental impact statement need not be prepared.

For further details with respect to this action, see the exemption request dated July 30, 1987 and the Commission's Environmental Assessment and Finding

of No Significant Impact dated July 5, 1989 (54 FR 29422). These are available for public inspection at the Commission's Public Document Room, 2120 L Street, NW, Washington, DC 20555, and at the General Library, University of California, P.O. Box 19557, Irvine, California 92713.

This exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Gary M. Holahan, Acting Director
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland
this 13th day of July, 1989