

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of

PUBLIC SERVICE COMPANY OF COLORADO

(Fort St. Vrain Nuclear Generating
Station)

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Docket No. 50-267

EXEMPTION

I.

Public Service Company of Colorado (PSC or the licensee) is the holder of Facility Operating License No. DPR-34, which authorizes operation of the Fort St. Vrain Nuclear Generating Station (FSV) at steady-state reactor power levels not in excess of 842 megawatts thermal. The license states, among other things, that FSV is subject to all rules, regulations and Orders of the Nuclear Regulatory Commission (the Commission or NRC) now or hereafter in effect. FSV consists of a high temperature gas cooled reactor located at the licensee's site in Weld County, Colorado. FSV is now permanently shutdown and partially defueled.

II.

Section 50.54(q) of 10 CFR Part 50 requires a licensee authorized to operate a nuclear power reactor to follow and maintain in effect emergency plans which meet the standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50. Section 50.47(b) of 10 CFR Part 50 provides that both offsite and onsite emergency plans must meet the standards specified in subparagraphs (1) through (16) of 10 CFR 50.47(b). With respect to offsite

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emergency preparedness, PSC states that an exemption from 10 CFR 50.54(q) is necessary because, with the proposed cessation of offsite response capability for FSV, PSC will no longer meet the standards for offsite preparedness that are listed in 10 CFR 50.47(b) and in Appendix E to 10 CFR Part 50. In particular, PSC will not meet the standards for offsite preparedness because under the proposed Defueling Emergency Response Plan (DERP), the Emergency Operations Facility will be eliminated, the prompt notification (siren) system will not be utilized and the annual dissemination of basic emergency planning information to the public located within the five-mile radius (the current approved Emergency Planning Zone) of FSV will not be continued.

The NRC may grant exemptions from the requirements of the regulations which, pursuant to 10 CFR 50.12(a), are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. Further, 10 CFR 50.12(a)(2) provides that the Commission will not consider granting an exemption unless special circumstances are present. The special circumstance of 10 CFR 50.12(a)(2) applies to FSV's situation:

- (ii) Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule.

III.

By letter dated June 15, 1990, the licensee requested an exemption from the emergency preparedness requirements of 10 CFR 50.54(q) based on the

FSV's permanent shutdown status and partial defueled condition. FSV was permanently shutdown on August 18, 1989. The licensee submitted a Defueling Safety Analysis Report (DSAR) on August 16, 1989. This report indicated that the potential risk to the public was significantly reduced and the range of credible accidents and accident consequences were limited after the permanent shutdown and during defueling. The worst case accident for this facility is the dropping of a loaded spent fuel shipping cask in the reactor building. The licensee's analysis showed a two hour exposure of 0.19 mrem whole body gamma dose at 100 meters. They concluded that based upon the consequences of this worst case accident, the highest emergency classification that can occur is an Alert. Therefore, it would be appropriate to reduce the scope of the FSV emergency preparedness plan by eliminating offsite emergency response, while maintaining the emergency response capability necessary for onsite response to an Alert emergency classification.

The NRC staff has independently calculated the offsite dose resulting from a fuel handling accident using the assumptions and parameters in the standard review plan, the updated Safety Analysis Report (SAR) and the licensee's submittal dated June 15, 1990. The NRC staff's analysis indicated that the two hour whole body gamma dose would be 0.3 mrem at 100 meters. This value agrees with the licensee's exposure dose and is a small fraction of the Environmental Protection Agency's (EPA) Protective Action Guideline of one (1) rem whole body gamma dose from exposure to airborne radioactive materials. Under the general guidelines defining emergency classifications in NUREG-0654/FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Procedures in Support of Nuclear

Power Plants," dated November 1980, as well as the nature of the accident, it would be highly unlikely that FSV would be in an emergency situation in which the result would be classified greater than an Alert. Under these circumstances, the staff believes that the offsite emergency response plan is not required. The staff took this finding into consideration while reviewing the proposed DERP based on the acceptance criteria included in the planning standards of 10 CFR 50.47(b), and NUREG-0654.

The NRC staff has reviewed the DERP based on the acceptance criteria included in the planning standards of 10 CFR 50.47(b), the requirements of Appendix E to 10 CFR Part 50, and the guidance criteria of NUREG-0654. The NRC staff also reviewed the DERP based on the requirements of 10 CFR 50.47(d) for a license authorizing only fuel loading and low power testing. The requirements of 10 CFR 50.47(d) address the lower risk associated with low power operation and are generally appropriate for reviewing the offsite aspects of the FSV DERP.

Based on this review, the Commission has concluded that the FSV DERP provides an acceptable emergency preparedness plan for FSV in its non-operating and partially defueled condition, and the plan provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

The licensee's request for exemption, based on the standards set forth in 10 CFR 50.12, is reasonable in light of the highly reduced offsite radiological risk associated with FSV's non-operating and partially-defueled condition. The requested exemption, is (1) authorized by law, is consistent with the common defense and security, and will not present an undue risk to the public health and safety, and (2) presents special circumstances.

IV.

Regarding the existence of special circumstances which justify the exemption, 10 CFR 50.12(a)(2)(ii) applies to FSV's situation. For operating nuclear plants, emergency planning is essential to safety and the NRC's emergency planning regulations exist to ensure that adequate protective measures can and will be taken to protect the public health and safety in the event of a radiological emergency. The Commission concurs in PSC's analysis that no credible accident can occur that would require offsite emergency preparedness and thus adversely impact public health and safety in terms of offsite emergency preparedness. Considering the partially defueled condition at FSV, requiring PSC to continue to meet the full range of NRC's emergency planning regulations is not necessary in order to achieve the underlying purpose of 10 CFR 50.54(q). With the level of emergency preparedness provided by the DERP, PSC will be fully capable of responding adequately to the spectrum of credible accidents that could occur at FSV in its partially defueled condition.

V.

For these reasons, the Commission has determined that, pursuant to 10 CFR 50.12, (1) the exemption requested by PSC's letter dated June 15, 1990, 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, and (2) special circumstances are present as described above.

Accordingly, the Commission hereby grants the following exemption:


The Fort St. Vrain Nuclear Generating Station is exempt from the requirements of 10 CFR 50.54(q) in regard to offsite emergency response for emergency preparedness, provided that (1) the reactor is permanently shutdown, and (2) the Fort St. Vrain Nuclear Generating Station Defueling Emergency Response Plan is implemented.

This Exemption will remain in effect unless and until revoked by the Commission.

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this Exemption will have no significant impact on the environment (55 FR 53215, December 27, 1990).

This exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Dennis M. Crutchfield, Director
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland
this 31st day of December 1990