



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
WASHINGTON, D. C. 20555

January 12, 1978

Honorable Joseph M. Hendrie  
Chairman  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: REPORT ON PEBBLE SPRINGS NUCLEAR PLANT, UNITS 1 AND 2

Dear Dr. Hendrie:

During its 213th meeting, January 5-7, 1978, the Advisory Committee on Reactor Safeguards completed its review of the application of the Portland General Electric Company for a permit to construct the Pebble Springs Nuclear Plant, Units 1 and 2. This project was also considered during a Subcommittee meeting held in Portland, Oregon, on October 28, 1977. The Committee previously completed a partial review of this project at its 190th meeting, as discussed in its interim report to the Nuclear Regulatory Commission (NRC) dated February 11, 1976. During its review, the Committee had the benefit of discussions with representatives and consultants of the Portland General Electric Company, the Babcock and Wilcox Company, the Bechtel Power Corporation, and the NRC Staff. The Committee also had the benefit of presentations on the regional tectonics of the Pacific Northwest by representatives of the NRC Staff, the U. S. Geological Survey (USGS), Puget Sound Power and Light Company, Portland General Electric Company, Washington Public Power Supply System, their consultants, and members of the public at Subcommittee meetings held on September 1-2, 1977 in San Francisco, California, and on October 27-28, 1977 in Portland, Oregon. Matters related to the regional tectonics of the Pacific Northwest were considered at the 209th and 211th Committee meetings as reported in the Committee's letter dated November 15, 1977 to the NRC Executive Director for Operations. The Committee also had the benefit of the documents listed.

At the time of the Committee's interim report, February 11, 1976, the NRC Staff, the USGS, and the Applicant had not yet completed their reviews of the seismic design basis and of matters related to the possible deposition of volcanic ash arising from major volcanic eruptions of Mount Hood or Mount Saint Helens. These reviews have now been completed and the ACRS finds the Staff positions on these matters acceptable.

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The Committee believes that the Applicant and the NRC Staff should review the Pebble Springs Nuclear Plant for design features that could further reduce the possibility or consequences of sabotage. (Generic Item IIC-2 in ACRS Report, "Status of Generic Items Relating to Light-Water Reactors: Report No. 6," dated November 15, 1977).

Since the Committee's earlier partial review, the Staff has identified 13 additional issues, 11 of which require resolution prior to construction. These matters should be resolved in a manner satisfactory to the NRC Staff.

With regard to the generic problems cited in the Committee's report, "Status of Generic Items Relating to Light-Water Reactors: Report No. 6," dated November 15, 1977, items considered relevant to the Pebble Springs Nuclear Plant, Units 1 and 2 are: II-3, 4, 5B, 6, 7, 9, 10; IIA-2, 3, 4; IIB-1, 2; IIC-1, 3A, 3B, 4, 5, 6; IID-2; IIE-1. These problems should be dealt with by the NRC Staff and Applicant as solutions are found.

The ACRS believes that, if due regard is given to the items mentioned above and in its report of February 11, 1976, the Pebble Springs Nuclear Plant, Units 1 and 2 can be constructed with reasonable assurance that it can be operated without undue risk to the health and safety of the public.

Sincerely yours,



Stephen Lawroski  
Chairman

References:

1. Pebble Springs Preliminary Safety Analysis Report, Volumes 1-9 and Amendments 1 through 10.
2. Safety Evaluation Report, NUREG 0013, related to construction of Pebble Springs Nuclear Plant, Docket Nos. 50-514 and 50-515, January 1976, with Supplements 1 through 4.
3. USGS letter, dated January 3, 1978 from Henry W. Coulter, to Mr. Edson G. Case, ONRR, USNRC, re review of geologic and seismologic data relevant to Pebble Springs Nuclear Plant, Units 1 & 2.

References (con't)

4. Shannon & Wilson report to Portland General Electric Company entitled "Volcanic Hazard Study - Potential for Volcanic Ash Fall, Pebble Springs Nuclear Plant Site, Gilliam County, Oregon," dated January 1976.
5. Pebble Springs Nuclear Plant Fire Protection Review, PGE 2013, March 1977 with Amendment 1 dated November 1977.
6. Portland General Electric Company letter dated September 7, 1977, from J.W. Lindblad to Director of Nuclear Reactor Regulation, USNRC, re identification of significant items not formally documented with NRC.
7. Portland General Electric Company letter dated November 17, 1977, from W.J. Lindblad to Director of Nuclear Reactor Regulation, USNRC, re forwarding detailed description of Solid State Interposing Logic System.
8. Portland General Electric Company letter dated November 29, 1977, from W.J. Lindblad to Director of Nuclear Reactor Regulation, USNRC, re evaluation of geological and seismological aspects and outstanding issues.
9. Portland General Electric Company letter dated November 30, 1977, from Joseph L. Williams, Executive Vice President to Director of Nuclear Reactor Regulation, USNRC, re response to questions raised by ACRS.