

AUG 12 1982

Docket Nos: STN 50-522
and STN 50-523

APPLICANT: Puget Sound Power and Light Company/NEESCO
FACILITY: Skagit/Hanford, Unit Nos. 1 and 2
SUBJECT: MEETING SUMMARY - SEISMIC REFRACTION DATA AND INTEGRATED
GEOLOGY/SEISMOLOGY STUDY (JULY 8-9, 1982)

On July 8 and 9, 1982, a meeting between representatives of the Skagit/Hanford Nuclear Project (S/HNP) construction permit applicants and the NRC staff was held in the Phillips building in Bethesda, Maryland. The applicants summarized the results and interpretation of seismic refraction data obtained by representatives of the applicant and the results of the applicants' integrated study using geological/geophysical data obtained by the applicants and data available from investigations by other organizations. The staff indicated that it would advise the applicants by about July 16, 1982, of its conclusion on whether additional information would be needed for completion of the staff review. In addition to these two principal items, other review items were discussed. A list of attendees is enclosed. The following is a brief summary of the items discussed:

Item 1 Refraction Data

During and following an earlier meeting on May 18, 1982, (Meeting Summary - May 26, 1982) the staff had identified locations (picks) where the refraction data had not been interpreted to the satisfaction of the staff. The applicants had reviewed all these picks and stated that most were attributed to near surface phenomena, including topographic effects and velocity inversions. Based on their further review the applicants concluded that there were no potentially hazardous structural geologic features within 5 miles of the proposed Skagit/Hanford (S/HNP) site.

The staff and its consultant, the U.S. Geological Survey (USGS), expressed some concern about a few of the structural features. The May Junction linear was identified as one of the more significant features projecting within 5 miles of the proposed S/HNP.

Item 2 Swarm Earthquakes

The applicants proposed to consider the closest approach for swarm earthquakes to be at the Columbia River, a distance from the site of 10.8 km. To be consistent with its position for the Washington Public Power Supply System (WPPSS) site, the staff requested that the closest approach be located about 1.5 km west of the Columbia River.

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The applicants stated that the closest injection wells were more than 10 km from the site. The staff noted that the possibility of future wells being located closer should be monitored by the applicants. The staff also noted that exceedances at the higher frequencies and the effects at high frequencies for possible nearby earthquakes may need to be considered in equipment qualification programs.

Item 3 Gable Mountain Faults and RAW Alignment

The staff's estimate of maximum earthquake magnitude on the Rattlesnake - Wallula (RAW) alignment is a surface wave magnitude (Ms) of 6.5. The staff provided guidance for attenuation calculations. For Gable Mountain faults the staff's estimate is Ms=5.0.

Item 4 Integrated Study

The applicants concluded that the integrated results of investigations by them and others were:

1. Appropriate since all available regional reliable geological and geophysical information had been utilized.
2. Minor deformations (bedrock warping) exist in the vicinity of the site.
3. No evidence of capable faults within 5 miles of the site exists and no major faults have been identified.

The applicants described the integrated study and the results of detailed study utilized in the integrated study. Detailed studies included:

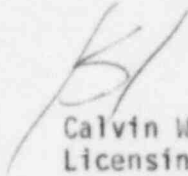
1. Seismic refraction lines from S/HNP and WPPSS investigations.
2. Gravity and land magnetic lines from S/HNP investigations.
3. Aeromagnetic surveys performed for WPPSS.
4. Skagit/HNP gravity surveys to identify configuration of the surface of the basalt.
5. Skagit/HNP boring program to identify top of basalt bedrock and to evaluate overlying sediments. The applicants indicated that wash borings provide 5 ft. resolution in defining the top of rock while core borings provide about 1 ft. resolution.

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- 5. Computer generated diagram of contact between the pre-Missoula and Ringold formations.

Item 5 Volcanic Ash

Recent field observations made by the USGS of the May 18, 1980, Mt. St. Helens ashfall suggests the volcanic ash fall may compact by 50-60% of loose uncompacted ash. This contrasts with 20-40% considered to be a reasonable estimate during the staff's review of the Pebble Springs application prior to 1980. Based on the higher compaction percentage, the design basis of loose uncompacted ashfall for the Skagit/HNP site could be in the range of 14.8 - 18.5 cm (5.8 - 7.4 in.) which appears to be in excess of the amount assumed by the applicants. The applicants have not completed their assessment of this ashfall estimate versus their present design criteria.



Calvin W. Moon, Project Manager
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Enclosure:
List of Attendees

cc: See next page

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07/08-09/82 - SKAGIT/HANFORD GEOLOGY/SEISMOLOGY MEETING ATTENDEES

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Calvin W. Moon	NRC/LB #4
Donald M. Caldwell*	Golder Associates
Steven W. Martsof	Puget Power
David G. Powell*	Lowenstein, Newman
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David M. Perkins	USGS
Job Sanford	Debevoise & Liberman
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*Part Time

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MEETING SUMMARY DISTRIBUTION

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Docket No(s): STN 50-522/523

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