



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Charlie

FEB 21 1984

MEMORANDUM FOR: Darrell G. Eisenhut, Director
Division of Licensing

THRU: G. C. Lainas, Assistant Director
for Operating Reactors, DL *JK*

FROM: James R. Miller, Chief
Operating Reactors Branch #3, DL

SUBJECT: SPIRIT LAKE BLOCKAGE STATUS - TROJAN

We will be meeting with the USGS and Portland General Electric Company on February 23 to review the PGE analysis of the flooding consequences at Trojan of a breakout of Spirit Lake blockage. The PGE analysis, conducted by Simons, Li & Associates, shows a maximum flood elevation at the Trojan site of 39 feet; Trojan is designed for a flood to el. 45 feet.

We have prepared a memo to DE for your signature which requests DE to provide an interim Safety Evaluation by March 2 and a final SE by April 6. The memo also states that DL is prepared to assist with funding if needed.

Based on our current knowledge: (1) should the Spirit Lake blockage fail, Trojan will be immediately notified and will have approximately 20 hours to shutdown (procedures are in effect that require shutdown), (2) there is a very low probability of Spirit Lake dam failure since the Corps of Engineers has the lake pumped down to accommodate spring thaws (the level is approximately equal to 14 feet below what is considered a safe level). Due to increased Mount St. Helens volcanic activity the pumping station was abandoned; however, the pumping station has been manned since February 11; and (3) the Columbia river flow is average and well below flows of concern.

The very conservative analysis conducted by USGS showed flooding above grade at Trojan for several cases studied. For the high water case, a Columbia River flow of about 685,000 cfs would be required. We intend to continue to daily monitor the Columbia River flow until the USGS (our consultant) and PGE have resolved the differences in their flood models and a decision is made by the technical staff as to the appropriate maximum flood at the Trojan site. In the meantime should the Columbia River flow increase to approximately 600,000 cfs we will inform you and discuss a more immediate action with regard to operation of Trojan. The hydrologists in DE are monitoring river flow daily. The 685,000 cfs value represents a flood with a recurrence interval of approximately 16 years.

With your concurrence we will proceed as stated above.

James R. Miller, Chief
Operating Reactors Branch #3, DL

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PDR FOIA
BELL85-353 PDR

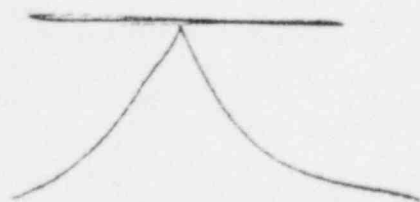
C/34

2-23-84

SPIRIT LAKE MTG

Goal identify difference of report interpretation
and determine what counts to review the
Spirit Lake issue.

The assumption of $-2.5'/mi.$ slope
is realistic, & based on the
1980 midflow. This is not
conservative. Higher slope would
result in a greater flood



C/35

both of Lake 3310
at 3402 Lake - 151' deep

~~conclusion~~ ~~Refute~~

Robert Locke sent - F46C

3 Bill Sikoma - sediment transport model development

2000 1000

original long-term 35 yrs

FEA wanted to know what is left
added function
that ~~change~~ Aug 1 1994

Setacea longist. pectin. munda

27th Oct to 6 Nov.

- Mrs. Lillian West

122

Dr. Li.

one data point only
very little knowledge in this area.

1. more different vol. of sediment in Columbia

① SLA 65% → 45% (MAX) 50% and more.

USGS: 65% all the way.

② assume 7.5 SLA
tidal level 9.6 GS

③ sediment size

SLA drops lower
particularly in Toulon R
valley

GS doesn't.

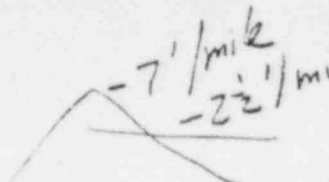
4
Slope: Corps -7/mi SLA used -7/mi
GS -2.5/mi

Volume: GS

SLA

45'
CWS

CWS
SWS
CCW ②
③
④



→ F. $.22 \times 10^9$
 280×10^6
 50

deposition Li Conservation

314,000 acc. #
 3475 ppm piping failure.
 65% cons.

Storage along path -
 avail. loose mat'l below 3475 $175 \times 10^9 \text{ yds}^3$

(^{*}more importantly^{*}) (as opposed to the regulations)

→ no definite conclusions reached
 w/chg of info. PGE

Juan de Fuca

↑ 80%
 65%
 ↓ 45%

USGS hydrograph = cons.
 SLA cd. R. model = conservative.
 May 1 - new USGS run.

Attendance

SPIRIT LAKE PITC-

<u>Name</u>	<u>Affiliation</u>
Charles Trammell ✓	NRC
Joe Fiege ✓	NRC
Leslie Laird ✓	USGS
Gary A. Zimmerman ✓	PGE
Theodore E. Bushman ✓	PGE
Tzu-MING LI ✓	SIMONS, LI & ASSOCIATES INC
Michael Domenick ✓	SIMONS, Li & Asso. Bethesda
RAY GONZALES ✓	NRC
Em Fontegust ✓	NRC
Ron Ballard ✓	NRC
Bill Sikonia ✓	USGS
Chuck Swift ✓	USGS
Bill Johnston	NRC