Washington Public Power Supply System
P.O. Box 968 3000 George Washington Way Richland, Washington 99352 (509) 372-5000

July 7, 1981
GO-1-81-207

Mr. R. H. Engelken, Director
United States Nuclear Regulatory Commission
Region V
1990 N. California Boulevard
Suite 202, Walnut Creek Plaza
Walnut Creek, California 94596

Dear Mr. Engelken:

Subject: WPPSS Nuclear Projects Nos. 1 and 4
Docket Nos. 50-460 and 50-513
Response to IE Bulletin 81-03

Reference: Letter, R. H. Engelken to WPPSS (D. W. Mazur)
IE Bulletin 81-03, dated April 10, 1981

The referenced letter requested that licensees of facilities with construction permits provide a written report responding to IE Bulletin 81-03 within 90 days. The enclosure responds to the questions for the Washington Public Power Supply System Nuclear Projects Nos. 1 and 4.

We hope this responds to your request for information. If you should have any questions on this information, please contact me.

Very truly yours,

D. W. Mazur
Program Director

sms
Enclosure

cc: Director, Office of Inspection and Enforcement, NRC
WS Chin, Bonneville Power Administration
NS Reynolds, Debevoise and Liberman
W Woods, NUS

IE 11
S
1/1

81-59

STATE OF WASHINGTON)
)
) ss
)
COUNTY OF BENTON)

I, D. W. MAZUR, being duly sworn, subscribe to and say that I am the Program Director, WNP-1/4, for the WASHINGTON PUBLIC POWER SUPPLY SYSTEM, the applicant herein; that I have full authority to execute this oath; that I have reviewed the foregoing; and that, to the best of my knowledge, information and belief the statements in it are true.

DATED July 2, 1981

D. W. MAZUR

On this day personnally appeared before me D. W. MAZUR to me known to be the individual who executed the foregoing instrument and acknowledged that he signed the name as his free act and deed for the uses and purposes therein mentioned.

GIVEN under my hand and seal this 2nd day of July, 1981.

Ronald J English
Notary Public in and for the
State of Washington
Residing at Richland

Enclosure 1

Docket Nos. 50-460 and 50-513
Washington Public Power Supply System Nuclear Projects 1 and 4 (WNP-1/4)

Response to IE Bulletin 81-03: Flow Blockage of Cooling Water to Safety System Components by Corbicula sp. (Asiatic clam)

Question 1:

Determine whether Corbicula sp. or Mytilus sp. is present in the vicinity of the station.

Response:

Mytilus sp., a salt water mussel, has not been found in the fresh water of the Columbia River, 1974-1980, whereas Corbicula sp. has been found.

Question 2:

If these organisms are present in the local environment and potentially affected systems have been filled from the station source or receiving water body, determine whether infestation has occurred.

Response:

Presently, none of the WNP-1/4 systems have river water in them.

Question 3:

Describe the actions taken in Items 1 and 2 above for construction permit holders and include the following information:

a. Applicable portions of the environmental monitoring program, including last sample date and results.

b. Components and systems affected.

c. Extent of fouling if any existed.

d. How and when fouling was discovered.

e. Corrective and preventive actions.

Response:

a. Scuba investigations in the Columbia River, upstream of the WNP-1/4 intake structures, on May 29, 1981 resulted in finding one Corbicula. The intake structures are located on the west shore of the Columbia River. The specimen was collected approximately five miles upstream of the intakes on the east shore of the river.

b.- As indicated in the response to Question 2, no systems have been
e. affected by Corbicula fouling. In addition, no safety-related systems have river water in them. The fire protection system presently uses well water, not Columbia River water, as its source, thus fouling is not a problem.

Question 4:

Describe methods planned (including implementation date) for preventing and detecting future flow blockage or degradation due to clam or shell debris.

Response:

A random number of auxiliary cooling water coolers, condenser cooling water heat exchangers, and raw service water/high-pressure fire protection system will be examined. The systems will be initially inspected six months after introduction of river water and at least annually during the pre-operational period. Once the plant is operational, the systems will be inspected during refueling outages.

If fouling occurs, it is anticipated that one or more of the following actions may be used to prevent further flow degradation and fouling:

a. Mechanical cleaning;

b. Mechanical straining;

c. Periodically flush the affected system;

d. Continuous chlorination, at the beginning and end of the projected clam spawning period, for closed (in-plant) systems; and

e. Directing affected water to the cooling tower discharge flume rather than the cooling tower basin. This will expose incoming clam larvae to a lethal thermal stress.