Docket No. 50-397

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

July 6, 1981

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 Project No. 2
Docket No. 50-397
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 Project No. 2.

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

Very truly yours,

R. G. Matlock
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

IE11
S1/1

81-137

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

I, R. G. MATLOCK, being duly sworn, subscribe to and say that I am the Program Director, WNP-2, 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

R. G. MATLOCK

On this day personnally appeared before me R. G. MATLOCK 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

Notary Public in and for the
State of Washington
Residing at Kennewick

Enclosure 1

Docket No. 50-397
Washington Public Power Supply System Nuclear Project 2 (WNP-2)

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, only some of the WNP-2 systems have been filled with river water.

Examination of the WNP-2 mechanical draft cooling tower basins, circulating water pumphouse bays, and the emergency spray pond basin on May 12, 1981 revealed no evidence of biological infestation. Scuba investigations of the river water intake pumphouse in October 1980 and May 1981 produced no evidence of Corbicula infestation.

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-2 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.- e. As indicated in the response to Question 2, no systems have been 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:

WNP-2 will continue to monitor the mechanical draft cooling tower basins, circulating water pumphouse bays, spray ponds, and river water intake pumphouse bays for evidence of Corbicula. In addition, auxiliary cooling water coolers, condenser cooling water heat exchangers, and raw service water/high pressure fire protection systems will be examined. This monitoring will occur when inspections are made for routine plant maintenance activities and will continue throughout the pre-operational test program and plant operations. It is anticipated that the main condenser will be inspected during each refueling outage. This inspection will include monitoring for Corbicula.

If monitoring identifies a potential problem exists, a specific program will be established to examine critical plant equipment.

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.