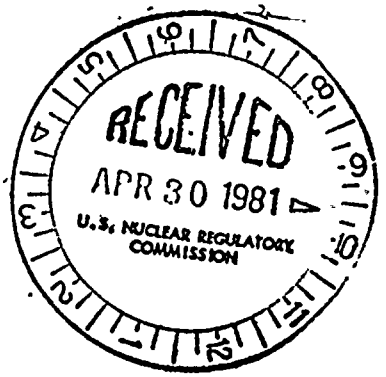
APR 27 1981



Docket No. 50-397

Washington Public Supply System
ATTN: Mr. R. L. Ferguson
Managing Director
3000 George Washington Way
Richland, Washington 99352

Subject: Request for Additional Information for the Review of the WNP-2 Facility

Dear Mr. Ferguson:

As a result of our continuing review of the WMP, Unit 2 FSAR, we find that we need additional information to complete our evaluation. The specific information required is in the area of auxiliary systems and is presented in the Enclosure.

To maintain our licensing review schedule for the WNP-2 FSAR, we will need responses to the enclosed request by June 26, 1981. If you cannot meet this date, please inform us within seven days after receipt of this letter of the date you plan to submit your responses so that we may review our schedule for any necessary changes.

Please contact Raj Auluck, WNP-2 Licensing Project Manager, if you desire any discussion or clarification of the enclosed request.

Sincerely,

Original signed by
Robert L. Tedesco

Robert L. Tedesco, Assistant Director
for Licensing
Division of Licensing

Enclosure:
As stated

cc: See next page

bcc: ACRS (16)
TERA
NRC/PDR
L/PDR
NSIC
TIC

DISTRIBUTION
Docket or Central File
LB#2 File
DEisenhut
RJYoungblood
RAuluck
MRushbrook
RTedesco
RVollmer
TMurley
DRoss
RHartfield, MPA
VNOOnan
OELD
OIE (3)
JRidgely
LRib

APP 3

OFFICE	LB#2	LB#2	LB#3	A/D/L			
SURNAME	RAuluck:sp	ASchwencer	RBYoungblood	RLTedesco			
DATE	4/23/81	4/23/81	4/ /81	4/24/81			

8105050219

NRC FORM 318 (10/80) NRCM 0240 OFFICIAL RECORD COPY ☆ USGPO: 1980—329-824

D10.35 (3.4.1) The FSAR states that the "seismic Category I piping and electrical conduit penetrations that are below grade ... are ... not sealed against groundwater pressure." Demonstrate that the safety functions would not be compromised by water flowing into the building through these piping and conduit penetrations as the result of the following events.

1) Another compartment is flooded and water is flowing out of the building through the piping and conduit penetrations, resulting in saturated ground conditions.

2) A non-seismic Category I tank ruptures emptying all of its contents.

D10.36 (3.5.1) RSP It is the Staff's position that all safety-related equipment shall be appropriately protected against the effects of internally generated missiles in accordance with Table 10, Code of Federal Regulations Part 50, Appendix A, General Design Criteria 4. The effects of internally generated missiles such as valves stems, bonnets, control rod drive mechanisms, and high pressure accumulators impacting onto safety related equipment must be evaluated. Appropriate protection must be provided to assure that a missile will not prevent a safe shutdown of the plant or result in uncontrolled release of radioactivity during normal operation or during the most severe design basis accident with the most limiting single active failure. Describe the means provided for assuring protection of safety related equipment from all internally generated missiles.

10.37, 10.38, 10.39 (3.5.1) No response has been received to questions 211.107, 211.108, and 211.109 as of amendment 12 to the FSAR. When you provide your response, revise the question numbering scheme as follows: 211.107 to 010.37, 211.108 to 010.38, and 211.109 to 010.39.

10.40 (3.5.1) The FSAR states that the water lines are "...tornado-hardened." State your criteria for protecting pipes located outside buildings from tornado missiles, including depth below grade requirements and provide drawings which show all pertinent tornado protection features as necessary.

10.41 (5.6) Demonstrate that the scram discharge system meets the criteria enumerated in the Generic Safety Evaluation Report BWR Scram Discharge System, dated December 1, 1980.

10.42 (5.6) Demonstrate that a slow or partial loss of air pressure to the scram discharge valves will not result in the following:

1) Rapid filling of both the scram discharge volume and the instrument volume due to the lifting of most or all scram discharge valves, with consequent loss of adequate scram discharge volume.

2) Loss of reactor coolant due to the combination of lifting of most or all scram discharge valves, without compensating closure of the vent and drain valves, with consequent environmental effects inside containment.

Unless it can be demonstrated that no adverse effects can result, a system shall be provided and described in this section to protect against these two conditions.

010.43 (4.6) Describe the effects on the safety and operability of the control rod drive hydraulic system if the following control rod drive system valves either fail closed or fail open:

1) Drive water pressure control valve (between F060 and F061)

2) Cooling water pressure control valve (between F070 and F071)

010.44, 010.45, 010.46, 010.47, 010.48, (4.6) 010.49, 010.50, 010.51, 010.52, 010.53 (5.2.5) No response has been received to questions 211.130, 211.131, 211.133, 211.134, 211.135, 211.006, 211.122, 211.123, 211.125 and 211.126 as of amendment 12 to the FSAR. When you provide your response, revise the question numbering scheme as follows: 211.130 to 010.44, 211.131 to 010.45, 211.133 to 010.46, 211.134 to 010.47, 211.135 to 010.48, 211.006 to 010.49, 211.122 to 010.50, 211.123 to 010.51, 211.125 to 010.52, and 211.126 to 010.53.

010.54 (9.1.1) Provide the K_{eff} and the density for optimum moderation for the new fuel storage facility, assuming the infinite array of maximum enriched new fuel for the optimum case. Describe the preventive measures taken to assure that $K_{eff} \leq .98$ for the new fuel storage facility for all moderating conditions. Alternately, demonstrate that no moderating condition between 100% water and 0% water densities can credibly exist.

010.55 (9.1.2) Describe, discuss, and verify that the maximum potential kinetic energy contained in all objects of less weight than a spent fuel assembly which will be handled over spent fuel will not exceed the effects of the fuel handling accident described in section 15.7.4 of the FSAR.

Q10.56 (9.1.3) Your response to question Q10.21 is completely inadequate. Your design should be modified to provide one of the following alternatives:

1) a seismic Category I, Quality Group C, tornado missile protected spent fuel pool cooling system, including the secondary fuel pool heat exchanger cooling system.

2) a seismic Category I, Quality Group C, tornado missile protected, make-up water supply to the spent fuel pool and HVAC (the HVAC design environment should be 212°F and 100% humidity). The structure above the refueling floor should be seismic Category I and tornado missile protected.

3) a seismic Category I, Quality Group C, make-up water supply to the spent fuel pool and the results of an analysis which verifies that with the loss of the structure above the refueling floor, cooling with only the seismic Category I make-up, and the most unfavorable atmospheric diffusion conditions (X/Q) that the site boundary dose will not exceed 25% of the limits specified in Title 10, Code of Federal Regulations, Part 100.

Q10.57 (9.1.3) Verify that your use of the phrase "...controlled and supported to seismic Category I requirements" means that it meets all requirements for seismic Category I qualification.

Q10.58 (9.2.2) Since the non-safety related reactor building component cooling water system provides cooling for the reactor recirculation pumps, state the length of time that the pumps can be left without component cooling water flow before significant seal damage can occur, with consequent potential primary coolant leakage:

(a) if pumps are kept running

(b) if pumps are turned off.

010.59 (9.2.5) Regulatory Guide 1.27 requires that there be sufficient water in the spray ponds for 30 days of cooling without make-up. Discuss how you will monitor the build up of sediment on the floor of the ponds so as to assure availability of the 30 day water supply. Describe how you will clean the spray ponds without losing redundancy or degradation of the system.

010.60 (9.2.6) The FSAR states there is "...a suction head of at least 20 feet during RCIC operation" from the condensate storage tank at elevation 443'0" and the RCIC impeller elevation 427'3". Discuss how the 15'9" elevational difference between the condensate storage tank and the RCIC impeller satisfies the 20' requirement.

010.61 (9.3.1) RSP The nitrogen bottles with its associated equipment and containment instrument air system shall be a minimum of Quality Group C.

010.62 (9.4.1) In your response to question 010.29 there seems to be a contradiction between the thickness of the air intake roof slab -- and the height of the top of the roof slab above grade. Please clarify your numbers and provide physical drawing(s) of the air handling system with details of the remote air intake structures.

010.63 (9.4.1) RSP Discuss the control room environment which will result from the most extreme ambient and accident conditions (including the worst single failure for the HVAC). Note: the temperature/humidity for all operating/accident conditions shall be maintained within the comfort zone as defined by ASHRAE. This requirement applies to all areas which require operating personnel.

Q10.64 (9.4.10) Discuss the effects of a potential failure of the non-seismic Category I heaters in the standby service water pumphouse under the most adverse environmental conditions on the operability of the pumps.

Q10.65 (10.4.5) Your responses to question Q10.34 regarding the potential flooding of safety related equipment due to a circulating water failure are inadequate. An analysis shall be conducted in accordance with Standard Review Plan 10.4.5, "Circulating Water System," which assumes:

1) An expansion joint break (Note: an incident of this type occurred at an operating BWR).

2) No credit shall be taken for isolation valve closure unless these valves are designed to safety grade requirements.