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SEP 8 1981

Docket No. 50-397

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

Dear Mr. Ferguson:

Subject: WNP-2 FSAR - Request for Additional Information

As a result of our review of your application for operating license we find that we need additional information regarding the WNP-2 FSAR. The specific information required is as a result of the Materials Engineering Branch's review and is listed in the Enclosure.

To maintain our licensing review schedule for the WNP-2 FSAR, we will need responses to the enclosed request by November 1, 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 me, if you desire any discussion or clarification of the enclosed request.

Sincerely,

Original signed by

Rajender Auluck, Project Manager
Licensing Branch No. 2
Division of Licensing

Enclosure:
As stated

cc: See next page

RPB

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*See previous concurrence

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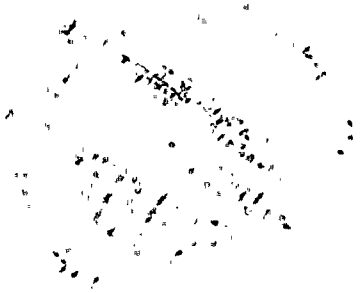
| SURNAME | *RAuluck:ph | ASchwencer | RTedesco | | | | |
| DATE | 9/ /81 | 9/ /81 | 9/ /81 | | | | |



SEP 8 1981

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Managing Director
Washington Public Power Supply System
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ENCLOSURE

121.0 Materials Engineering Branch - Component Integrity Section

121.11 Provide data to justify that the value of -50°F used to estimate the nil ductility temperature for the beltline welds was obtained from test samples that represent the beltline welds in the WNP-2 reactor pressure vessel. This information should include a comparison of the significant weld parameters (e.g., weld wire, flux, thermal treatment) and mechanical properties from both the sample and beltline welds.

121.12 In order to demonstrate that all reactor coolant pressure boundary (RCPB) materials comply with the requirements of Paragraph IV.A.2.a, the applicant must report the $RT_{NDT}$ for all ferritic (RCPB) plates, pipes, forgings and welds outside the reactor vessel beltline region which will be limiting for operation of the reactor vessel. If the method for determining $RT_{NDT}$ for these materials is different than that required by Paragraph IV.A.2.a, the applicant must identify the method and provide technical justification for its use.

121.13 Provide CVN impact data to demonstrate that all the reactor beltline materials except Girthweld AB/E8018NM/492L4871/Lot A422B27AF1, Girthweld AB/RACO1NM/5P6756/Lot 0342, and Girthweld AB/E8018/04T931/Lot A423B27AG have a minimum CVN impact test upper shelf energy of 75 ft-lb as required by Paragraph IV.B of Appendix G. The applicant must provide additional data, information from the literature, and/or analyses to demonstrate that the materials' upper-shelf will be assured for normal operation. The additional data should be from tests of plates having similar steelmaking practices and thermo-mechanical history. For the welds, the additional data should be from similar welds, i.e., those having the same weld wire, flux, and

thermal treatments as the beltline welds and prepared by the same fabricator as the original beltline welds.

121.14 To demonstrate compliance with Appendix H, 10 CFR Part 50, provide a table that includes the following information for each surveillance material specimen:

(1) Actual material specification;

(2) Origin of each surveillance specimen (base metal: heat number, plate identification number; weld metal: weld wire, heat of filler material, production welding process, and plate material used to make weld specimens);

(3) Test specimen, and type;

(4) Heat treatment of each test specimen;

(5) Chemical composition of each test specimen.

Provide the asmuthal location, lead factor and withdrawal time for each specimen capsule.

121.15 Provide the following data to demonstrate the main steam isolation valve (MSIV) RCPB materials will meet the fracture toughness requirements of NB-2332 of the Summer 1972 Addenda to the 1971 ASME Code.

(a) Indicate the diameter and nominal wall thickness of the connecting pipes.

(b) Indicate the material specification, material type, material supplier, heat treatment received by the material, minimum design wall thickness and CVN impact test results for all ferritic RCPB materials used in the MSIV bodies, covers, discs, stems and bolting.

(c) If CVN impact data can not be provided from each of these materials, provide CVN impact data from other materials which were fabricated from the same material specification and type, by same material supplier and heat treated to an equivalent metallographic condition as the MSIV materials.

121.16 There are six weld heats in response to Q 121.2 and 121.1 whose composition cannot be found in the list of weld metal compositions. They are (Location/Type/Heat/Lot):

(a) Ring 21BA/RAC01NMM/3P49U/1214 or 3PA966/1214*
(b) Ring 21BB/E8018NM/C3L46C/J020827A
(c) Ring 21BC/E8018NM/19L853/A111A27A
(d) Ring 21BC/E8018NM/C3L46C/J020A27A
(e) Ring 21BD/E8018NM/C3L46C/J020A17A
(f) Ring 21BD/E8018NM/C91046/D217A27A or C4P046/D217A27A*

Indicate the chemical composition (particularly the copper, phosphorus and sulfur content) of these weld metals.

121.17 Indicate which reactor vessel beltline weld metals were utilized for root passes and are within the first quarter of the weld thickness.

121.18 If the chemical composition of the weld metals in Q 251.6 are not known and the weld metals are not located within the first quarter of weld thickness, utilize the upper limit curves in Regulatory Guide 1.99 to determine the predicted adjusted reference temperature ($\Delta RT_{NDT}$). Indicate the end of life $\Delta RT_{NDT}$ for these materials and recalculate the pressure temperature limit curves if these weld metals become limiting during reactor vessel life.

121.19 Indicate the inside diameter and minimum wall thickness of the reactor vessel beltline.

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*One of these are typographical errors.