

Washington Public Power Supply System
A JOINT OPERATING AGENCY

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May 28, 1980
ELE-GCS-80-157

Dr. S. Hanauer, Director
Unresolved Safety Issues
U. S. Nuclear Regulatory Commission
Washington DC 20555

Subject: ANTICIPATED TRANSIENTS WITHOUT SCRAM

- Ref.: 1) Letter, S. Hanauer to D.L. Renberger, same subject,
dated April 18, 1980.
2) Letter, R.G. Cockrell to R. Mattson, ATWS Cost Estimate,
WPPSS Nuclear Project No. 1/4, dated January 2, 1979.

Dear Dr. Hanauer:

As you have noted in your letter of April 18, 1980, (Ref. 1) our letter of January 2, 1979, to Dr. Mattson (Ref. 2) estimated the cost of a number of potential ATWS modifications under consideration. As stated on page one (1) of Reference 2, our estimate included "direct costs, i.e. design, procurement and installation of equipment, and (did) not take into account other owners cost such as replacement fuel cost, testing and start-up, radiation exposure, etc." Where possible, we did include in those estimates, costs for sales tax, financing, health physics and security training for craft personnel. When we could, we also provided an estimate of the man-rem exposure and time to accomplish the work. Costs associated with these last two items were not estimated. For the cases reviewed, the indirect cost which we provided was indeed less than the direct costs. However, when one considers the more extensive modifications such as adding safety valves (item 10 of Ref. 2), the indirect costs which were not provided (most notably man-rem exposure and extension of normal outage time) greatly exceed the direct costs.

Our main concern with the manner in which our January 2, 1979, letter is referenced in NUREG 0460 Volume 4 is that it creates the impression that we have estimated the cost for those items being recommended in Volume 4 and in all cases the indirect costs are considerably less than the direct costs. This simply is not the case. Since we are sure it is not the staff's intent to mislead the reader, we suggest that enough clarification be added on page 59 of Volume 4 to make clear the context in which our estimates were provided.

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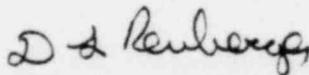
Your letter of April 18, also indicated concern over the comments in our letter of March 21 and Mr. Sorensen's statements in the AIF presentation to the ACRS on March 26.

If a plant must be shutdown for a period of time beyond a normal refueling outage, to accomplish the required ATWS modifications, then the replacement power costs associated with the outage extension are directly attributable to the ATWS fix and should be considered as an impact. We believe that all parties agree on that point.

We find it difficult to agree, however, that a part of the value of ATWS modifications should include credit for the "increased availability of power production facilities that might otherwise be disabled on shut down due to an ATWS event, and any other benefits that might be derived by averting risk." (NUREG 0460 Vol. 4, Pg. 58). Based on the assumptions and factors provided in Volume 2, Appendix XII, this "value" is heavily biased in favor of the staff recommendation. For example, the analysis assumes an average of 290 plants in operation during the 30 year period starting in 1978. As noted in Volume 4, some of the factors going into the value impact analysis have been reviewed and updated, providing the information found in Table 2 (Volume 4 Pg. 57). However, it is not clear which assumptions were revised. In any event, the averted costs represent the principal values even after multiplying by the staff's probability of an ATWS with severe consequences. However, if the probability figure was reduced by a factor of 10 or greater, as the industry believes it should be, the value of averted costs would also be reduced to a figure which may be approximately equal to or less than the impact.

For the above reasons, we and others in the industry, are of the opinion that the "values" are not appropriate.

Very Truly Yours,



D. L. RENBERGER
Assistant Director, Technology

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