



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
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Olympia, Washington 98502

November 10, 1982

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Director, Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Amendment 6, Applicant's Environmental Report for Skagit/Hanford Nuclear Project, Units 1 and 2, Benton County, Washington (ER 81/2622)

Gentlemen:

We have reviewed the above referenced amendment to the Skagit/Hanford Environmental Report. Our purpose in reviewing this document was to determine the extent to which our previous comments have been incorporated. We have provided comments on the initial Environmental Report (S/HNP-ASC/ER) (ER 82/1413) and the draft environmental impact statement (NUREG-0894) (ER 82/809). Most of our concerns have been resolved; however, the following comments still need to be addressed.

Page 3.4-4, Intake System

The NRC staff suggested in the draft EIS that the intake and discharge pipelines could be relocated to a point between 2500 and 4000 feet downstream of the proposed site. Locating the structures in this area would require less than half the excavations of the proposed site. We feel this alternative has the potential to significantly reduce construction impacts on benthic and other aquatic organisms. This mitigative measure was not considered in Amendment 6 of the ASC/ER.

Also on this page, the water inlet structure is described as having 3/8-inch openings and an approach velocity of 0.5 feet per second. We have no problem with the approach velocity; however, the standard maximum size for inlet openings where salmonid fry are present is 1/8 inch in the long direction. Despite the correct approach velocity, we feel that entrainment of salmonid fry is still possible with 3/8-inch openings. We would prefer that the standard 1/8-inch openings be used.

Page 5.1-9, Paragraph 5

Same comment as above.

Cool

Page 5.3-3 to 5.3-4

The toxicity of various metals is discussed in this section. All of the toxicity models are based on fish passively drifting through the effluent plume. However, the warm discharge water can be expected to attract

certain fish species such as smallmouth bass, bluegill, perch and dace, especially during winter months. These fish congregating in the area would constantly be exposed to high or potentially lethal concentrations of copper, mercury and cadmium. Some of these metal compounds can be concentrated in the body tissues of fish. Because several of these resident species are consumed by humans, we feel the issue of metal toxicity and bioaccumulation on warm water fish should be addressed in detail.

Page 5.3-5, Paragraph 3

This section discusses the toxicity of sodium hypochlorite (NaOCl) which is used as a biocide for treatment of cooling water. The extreme toxicity of this compound to fish is well documented. The argument presented in ASC/ER for using this chemical is based on the expected dilution effect of the river, which would decrease total residual chlorine (TRC) to non-lethal concentrations. The fact remains that TRC concentration at the point of discharge could have "serious biological consequences," and the possibility of operational errors, i.e., accidental overuse or the release of cooling blowdown before it has been adequately diluted, still exists (NUREG-0894, p. 4-64).

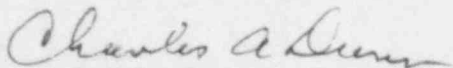
In the draft impact statement, the NRC staff suggested that the scouring action of naturally high silt concentrations in the Columbia River would eliminate the need for chemical biocides. Even if anti-fouling treatment of cooling water is determined to be necessary, non-chemical methods are available and should be investigated.

In summary, we feel the Environmental Report for Skagit/Hanford Nuclear Plants 1 and 2 does not adequately address the following issues: the location and opening size of the cooling water intake structures; the toxicity and bioaccumulation of heavy metals in resident warm water fishes; and the use of sodium hypochlorite as a biocide for cooling water. We believe these factors could have negative impacts on the aquatic resources of the Columbia River.

The final environment impact statement should address these concerns and should seriously consider the additional mitigative measures described on page 4-65 of the draft impact statement.

Thank you for the opportunity to provide these comments. We hope they will be helpful in developing an environmentally acceptable project which will not adversely impact the important fishery resources of the Columbia River System.

Sincerely,



Charles A. Dunn
Field Supervisor

cc: FWS/OEC, Washington, D.C.
OEPR
WDG (Grandstaff)
WDF (Mills)
NMFS (Ceballos)
MLO