

SEP 29 1982

DOCKET NO: 70-1257

LICENSEE: Exxon Nuclear Company, Inc. (ENC)

SUBJECT: SAFETY EVALUATION REPORT, AMENDMENT APPLICATION FOR LIQUID EFFLUENT AND MONITORING CONTROLS, JUNE 4, 1982, 07001257061S&E

I. Background

ENC has obtained a State of Washington Discharge Permit which authorizes the release of certain wastewaters to the Richland sanitary sewer. In the amendment application, ENC requests NRC approval to divert certain process effluents containing uranium to the city sewer. The proposed limits will also be used for discharges from a wastewater treatment facility (to be built and licensed at a later date).

The State Permit also requires monitoring for specified chemicals in ground water. ENC requests replacement of SNM-1227 Conditions 15, 16; and 17 with a revised ENC License Conditions section. The revised ENC application would be consistent with the State Permit environmental monitoring requirements.

II. Discussion

A. Sewer Releases of Wastewater

ENC currently discharges all wastewaters containing uranium and regulated chemicals to storage/evaporation lagoons which will be filled to capacity in early 1983. ENC has scheduled a series of activities which provide for the immediate discharge of certain liquids to the sewer, construction of a facility for treatment of other wastewaters for discharge to the sewer, and eventual treatment of liquids in the storage lagoons. The latter two items will be the subject of future licensing actions.

ENC requests authorization to collect certain wastewaters in two holding tanks which are southwest of the UO<sub>2</sub> building. Following sampling and analysis, the liquids would be discharged to the sewer or to the lagoon. The State Permit provides limits for daily average and daily maximum quantities of certain chemicals and for sampling methods and frequencies for the wastes. The measurements include flow, NH<sub>3</sub> as N, NO<sub>3</sub> as N, F, pH and suspended solids. Limits on concentration and total quantities in 10 CFR 20 would be used for discharges of uranium. Uranium samples would be taken at the same time as chemical samples.

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**B. Releases of Cooling Water**

ENC is currently authorized to dispose of certain cooling water by discharge to the sewer system, a seepage pond, and the storage lagoons. ENC requests authorization to use cooling water for irrigation of ENC property as well.

**C. License Conditions 15, 16 and 17**

Condition 15 requires the licensee to conduct an environmental monitoring program as described in Tables 3.7 and 3.10 and Figures 3.6 and 3.8 of the Environmental Impact Appraisal which was issued by the NRC staff in August 1981. Condition 17 requires that water samples from test wells be sampled for uranium or gross alpha and other specified chemicals on a monthly basis. The State Permit has the same chemical monitoring requirements except as follows:

- (a) The permit requires quarterly sampling of wells as compared to monthly sampling in Condition 17,
- (b) there is no chemical monitoring requirement at the Richland Sewage Treatment Plant (STP). ENC currently samples for uranium in sludge on a quarterly basis,
- (c) the Yakima River will not be sampled monthly for uranium and other specified chemicals,
- (d) drinking water will not be sampled weekly for uranium and other specified chemicals, and
- (e) the State does not require analysis for sulfate in the water samples.

ENC will sample for uranium at the same frequency as the permit requires for the specified chemicals.

With respect to Item (a), the staff believes that monthly sampling and analysis should continue at least until ENC has completed the study of ground water monitoring as required by Condition 19 of the NRC license. The report on this study is to be submitted for review and approval by the NRC by October 15, 1982.

Item (b) is not significant since ENC will be monitoring for uranium discharged to STP at the ENC lift station. Items (c), (d) and (e) have little effect on the overall monitoring program and were omitted from the permit issued by the State.

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To assure that ENC completes the study required by Condition 19 of the NRC license, the following modification of Condition 17 is proposed:

Notwithstanding the statements and representations in Section 3 of the application forwarded by letter dated June 4, 1982, water samples from the test wells listed in Table 3.7 of the Environmental Impact Appraisal issued by the Commission in August 1981 shall be analyzed monthly for uranium or gross alpha, fluoride nitrate, ammonia, sulfate and pH instead of conductivity.

Condition 16 requires sampling of between liners leak detection systems on a monthly basis and follow on actions if liquid is detected in addition to the requirements identified above. Condition 17 requires sampling of the liquid for uranium or gross alpha and specified chemicals. ENC has written the monthly sampling requirements and action level requirements into Section 3 of the license. Analysis of liquids, however, would be limited to fluoride and uranium content. Nitrates, ammonia, sulfates and pH would not be determined. This change will not affect ENC's ability to detect a leaking liner.

Conclusion and Recommendation

Subject to the license condition above, the staff finds that the proposed deletion of license conditions 15-17 and revision of Section 3 of the license will have no adverse effect on public health and safety or on the environment. Approval of the amendment application is recommended.

Original signed by  
George H. Bidinger

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Approved by: W. T. Crow  
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