

JUN 15 1972

Docket No. 50-302

Richard C. DeYoung, Assistant Director for Pressurized Water Reactors, L  
Thru: Robert L. Tadesco, Assistant Director for Containment Safety, L

## REQUEST FOR ADDITIONAL INFORMATION FOR CRYSTAL RIVER, UNIT 3

Attached is our request for additional information on the Crystal River, Unit 3 FSAR. This information is required for our evaluation of the rad-waste and radiation protection systems. The applicant should provide the required information by August 22, 1972 to maintain the current schedule.

Original signed by  
Victor Benaroya

Victor Benaroya, Chief  
Effluent Treatment Systems Branch  
Directorate of Licensing

Enclosure:  
As stated above

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RADWASTE AND RADIATION PROTECTION QUESTIONS FOR CRYSTAL RIVER, UNIT 3

- 11.1 Provide sufficient information to clarify the following discrepancies:
- a. The annual quantity of radioisotopes released from the radioactive liquid waste system as estimated on page 11-5a does not agree with the estimate given on page 11-9c and page 11-37c.
  - b. The liquid waste disposal diagram, Figure 11-1, does not agree with Figure 11-1B and Figure V-12 in the Environmental Report; e.g., no mixed bed demineralizers.
  - c. The writeup on page 11-4b states that laundry wastes will be sent to the miscellaneous waste storage tank, if the activity is greater than  $10^{-9}$  uCi/ml after dilution. Figure 11-1B shows this stream being sent to the neutralizer tank.
  - d. Figure V-12 in the Environmental Report shows the deborating demineralizer regenerants being sent to the neutralizer tank. Figure 11-1b in the Final Safety Analysis Report shows these wastes being sent to the miscellaneous waste storage tank.
- 11.2 On the basis of the design and operation of the proposed radwaste treatment system, provide estimates of the maximum whole body dose to an individual and the maximum organ dose to an individual that would be received by the general public at the site boundary as a result of the release of liquid and gaseous effluents.
- 11.3 Figure 11-2a does not show the turbine building, reactor building purge, and the condenser vacuum pump air ejector release path. Provide a revised figure to show these release paths.
- 11.4 Provide additional details on the reactor building purge exhaust duct (Rm-A1) and the auxiliary building and fuel handling area exhaust duct (Rm-A2) monitors, including, the distance of monitoring filter elements from the exhaust stream and the bases for this distance, the location of the sample intake in the exhaust stream and bases for this location.
- 11.5 Your present design permits manual readjustment of alarm set-points prior to planned gaseous releases. Justify why you do not need to use a technique for measuring planned releases that does not interfere with alarm set-points.
- 11.6 Describe the capability in the plant of making periodic isotopic analyses comparable to those outlined in Safety Guide 21 of noble gases, iodines, particulates, and liquids released to environment.

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- 11.7 For each logical grouping of instruments, describe the calibration and preventive maintenance operations to be used.
- 11.8 Describe the operational characteristics of radiation monitors, including type of detector, sensitivity, range, method of calibration, set-points (and their bases), the criteria used to determine necessity for and location of the monitors.
- 11.9 Provide an estimate of the yearly onsite man-rem exposures from the plant. Compare the estimated doses with experience from relevant operating plants.

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