

RECORD #9

TITLE: Request For NRR Follow-Up - Environmental Sample Levels
Greater Than FES Estimates

FICHE: 05873-289

01-51176

APR 15 1976

Jack Sutherland, Chief
Fuel Facility & Materials Safety Branch
Region II

REQUEST FOR NRR FOLLOW-UP - ENVIRONMENTAL SAMPLE LEVELS GREATER
THAN FES ESTIMATES (F20135H2)

You forwarded an Evaluation of Results of Oconee Environmental Survey Performed by South Carolina and requested that the matter be transferred to NRR for follow-up. Your concern appears to be the question; what significance should be placed on occurrences in which observed levels are found to be greater than estimated levels in an FES? This reply is in response to your request.

The values of anticipated annual releases of radioactive material in liquid effluents and the corresponding anticipated concentrations in the tailrace which are presented in the Oconee FES are exactly what they claim to be, i.e., anticipated or estimated values. Further, the FES values are estimates of long-term averages (40 year life of the plant) which may vary from an observed value for any specific year. Considering the highly variable flow coming from the Keowee Hydroelectric Plant (a factor of 500) together with the other numerous variable effects, the estimates in the FES are rather good.

Your evaluation also stated that the concentrations of radioactivity detected by the South Carolina Department of Health in environmental samples were well below the South Carolina drinking water standards and the inspection of Oconee's liquid radwaste control program did not identify any noncompliance with technical specifications. Further, you reported that Duke Power Company had calculated doses to the public using NRC models and these were below the numerical guides of 10CFR50, Appendix I.

In summary, Regulatory limits were not exceeded, there is no information which was previously unknown to NRR, nor is there any information which is contrary to that assumed by NRR in its issuance of the license. Using these criteria, the significance of levels in the environment greater than estimated levels in an FES is minimal. Regional response to such discoveries should be to provide the SEP Branch with a brief summary of the findings which will be forwarded to Licensing for information. Regional response need not involve an evaluation of the data nor a modification of the inspection schedule to inspect the subject area.

For your information, the Effluent Treatment Systems Branch (ETSB) of the Division of Site Safety and Environmental Analysis, NRR reviews semi-annual effluent reports and is continuously attempting to improve their models for predicting the quantities of radioactive materials that are expected to be released from operating reactor facilities. During the review and evaluation of these reports and other sources of operating experience, ETSB becomes aware of situations similar to that described in your report and they do modify their models when sufficient operating experience indicates a need.

Copies of this memorandum are being sent to the other Regions to assure that a uniform approach will be taken in response to situations in which observed levels differ from those presented in FESS.

If you have further questions concerning this subject, please contact L. J. Cunningham.

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Leo B. Higginbotham, Chief
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