



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

PDR

JUL 20 1979

MEMORANDUM FOR: W. T. Crow, Section Leader
Uranium Fuel Fabrication Section
Fuel Processing & Fabrication Branch
Division of Fuel Cycle and
Material Safety

FROM: A. L. Soong
Uranium Fuel Fabrication Section

R. L. Stevenson
Uranium Fuel Fabrication Section

SUBJECT: TRIP REPORT

Purpose

To visit the Westinghouse Electric Corporation (WEC) fuel fabrication plant at Columbia, South Carolina, to see the equipment in the plant expansion area and to discuss the pending amendment application with WEC representatives.

Place and Date

WEC fuel fabrication plant near Columbia, South Carolina, July 17 and 18, 1979.

Discussion

The plant tour on July 17, 1979, was conducted by E. Reitler and H. King of the Radiological and Environmental Engineering staff and (part time) by C. Sanders, who is manager of the group. Detailed explanations of the mode of operation and safety controls for the process equipment seen in the new process area were provided by the process engineers: B. Garrett, W. Shang and R. Noe. The expansion area equipment explained in detail included the new waste incinerator and solvent extraction waste treatment process equipment, controls and auxiliary equipment. The equipment seen and descriptions provided are in accord with the information provided for that equipment in the amendment application of April 3, 1979, for authorization to process SNM in the expanded process area. None of the development Laboratory equipment, which will be similar to the existing licensed facility equipment, was in the new area.

782 308

7908240492

Dr. Soong had not previously visited the plant and hence we also went by one of the existing wet conversion lines, pellet presses, sintering furnace, rod loading area, rod testing area, and fuel fabrication and shipping area. The DCFB process was not operating. The existing plant areas were explained by Messrs. King and Reitler. A detailed explanation of the whole body counter, which was also visited, was provided by Jimmie Heath and Larry Coco, also of Sanders staff. We saw that the process ponds had been cleaned out, with the exception of the one in current use. The solidified sludge from the ponds (hardened by admixture with a hardening material) is piled in a large single pile awaiting NRC approval for shipment to Barnwell.

To reinforce our picture of the plant expansion area and equipment, we returned to the expansion area briefly on July 18, 1979, following discussions with WEC representatives of the outstanding questions on the application. The Health Physics Laboratory was also visited to see the counting equipment and hear a description of the procedures for counting and recording the air samples by J. Weatherford, who is the manager in charge of the Health Physics technicians.

Discussions of the outstanding questions on the pending amendment application were held on July 18 with Messrs. Goodwin (Manager, Compliance), Sanders, Reitler, and King. The main outstanding questions - identified as numbers 9 and 13 in the attachment to our letter to WEC dated May 22, 1979 - concern the procedure for disposal of uranium contaminated degraded solvent from the solvent extraction process, and the controls to ensure the homogeneity and maximum U-235 content in the process wastes being degraded to source material. We told the WEC representatives that the radioactivity limits for aqueous solutions in Part 20 did not seem applicable to an immiscible organic solvent but that we would let them know our decision following discussions of the question with other NRC staff. It was agreed that WEC would provide additional supporting information on the degradation procedure in a week to ten days.

A. L. Soong

A. L. Soong
Uranium Fuel Fabrication Section
Fuel Processing & Fabrication
Branch

R. L. Stevenson

R. L. Stevenson
Uranium Fuel Fabrication Section
Fuel Processing & Fabrication
Branch

782 329