

REACTOR OPERATIONS AND ENGINEERING



Kathleen Koenig Simon

Reactor Operations and Engineering Group after receiving Department of Commerce award for outstanding service.

Reactor on-line time for the year was 67% of real time, which is excellent, compared to the maximum achievable of 73%. The reason for the slightly lower on-line time than last year's 70% is two fold. There was a one-week shutdown for shipment of spent fuel and a three-week shutdown for licensing of new personnel and requalifying of current operators. This time was also used to perform maintenance on the guide tubes and refurbish the cooling tower. In addition, towards the end of the year, a very small leak, on the order of 0.01 liter per hour was discovered in the vicinity of the thermal column. As a result, it was decided to shut down the reactor and search for the leak. After an exhaustive search and testing, the source of the leak was not found and the leak had not returned. The situation will continue to be monitored.

Three new operators received their senior operator license following comprehensive written, oral, and operating examinations by the Nuclear Regulatory Commission. They passed their examinations and qualified with distinction achieving near perfect scores in all categories. All 17 currently licensed personnel passed their requalification examinations.

For the first time in ten years, three shipments of spent fuel were made to the DOE facilities at Savannah River, South Carolina. The shipments consisted of 126 elements equivalent to about 5 years of 20 MW operation. This has greatly relieved storage space in the spent fuel pool. Two more shipments are scheduled for the latter part of 1999.

Plans are underway for comprehensive review of all major reactor systems for upgrade or improvement. An outage of 3 - 5 months is scheduled for early 2000 to replace the control rods and the heavy water and to perform other maintenance items. Plans are also being made, if time permits, to replace the existing cooling tower with a larger wet-dry tower of new design and to replace the existing cold source with an advanced version that will double the flux.

An updated safety analysis report is in the final stages of review. It will be submitted to the Nuclear Regulatory Commission next year as the first step in the relicensing of the reactor.