


Director,  
U. S. Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
Region IV  
611 Ryan Plaza Drive  
Suite 1000  
Arlington, TX 76012

Licensee Event Report 50-285/76-18 Iodine and Particulate Airborne Release

In accordance with Fort Calhoun Technical Specifications, Licensee Event Report 50-285/76-18 is reported in violation of Technical Specification 2.9(2)b. During preparation of radioactive effluent release data summary for report submittal, it was found that the radioactive materials release rate of halogens and particulates with half lives greater than eight days exceeded  $9.6E-02$  microcuries per second for a containment purge performed on February 21, 1976. The release rate after the purge was completed indicated a release rate of 0.43 microcurie per second. The purge was performed in accordance with proper procedures and controlled conditions. However, the final release rate was approximately five times greater than the recommended rate of the release permit. The difficulty to totally control effluent releases less than 10,000 cfm had previously been identified. No radiation alarms were experienced by any airborne effluent monitors during the release. Monthly surveillance tests and testing prior to the individual release have not revealed any abnormal condition. A review of the monitor recording for the gaseous effluent monitor (RMO-62), the particulate effluent monitor (RMO-61) and the iodine effluent monitor (RMO-60) indicate the Technical Specification release rates were not exceeded.

A review of analytical procedures and assumptions has been initiated. It is suspected that the computer based gamma spectrometer used for isotopic analysis may have identified iodine-131 activity below its sensitivity due to broad energy range selection and interfering gamma radioactivity attributable to noble gases.

This confirms the telephone conversation between W. D. Dermeyer, Manager-Fort Calhoun Station and Mr. G. L. Madsen, NRC-OIE at 1740 on May 14, 1976.

  
for W. C. Jones  
Section Manager  
Operations

cc: Director of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, DC 20545

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PDR ADOCK 05000285  
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