

McGUIRE NUCLEAR STATION
REPORTABLE OCCURRENCE

REPORT NUMBER: 81-112

REQUEST DATE: August 5, 1981

OCCURRENCE DATE: July 6, 1981

FACILITY: McGuire Unit 1, Cornelius, NC

IDENTIFICATION OF OCCURRENCE: The composite sampler for the containment ventilation unit condensate drain tank (VUCDT) line was declared inoperable. The sampler's flow totalizer indicated a volume of flow which was obviously in error.

CONDITION PRIOR TO OCCURRENCE: Mode 3, Hot Standby

DESCRIPTION OF OCCURRENCE: The Foxboro digital totalizer on the flow-proportional composite sampler of the VUCDT line failed to provide accurate readings of the amount of contents released from the VUCDT. The system was, therefore, declared inoperable. This was reportable pursuant to Technical Specification 3.3.3.8 and required implementation of Action Statement 32 of Table 3.3-12.

ANALYSIS OF OCCURRENCE: A Foxboro digital flow totalizer (Model 14A) was recently installed in the VUCDT drain line as part of a required liquid effluent composite sampler package. Initial testing on the sampler package on July 1, 1981, determined that every component, with the exception of the flow totalizer, functioned well. The totalizer indicated a release volume which was approximately six times greater than was actually released. The Shift Supervisor was notified that although the totalizer did not work correctly, the remainder of the sampler did and, therefore, could be declared operable. Two hours later the VUCDT system was mistakenly declared operable.

On July 5, approximately 2000 gallons were released from the VUCDT via EMF-44 to the condenser circulating water system (RC) discharge. Similarly, a release was initiated on July 6. Based on the data received from the releases made up to that point in time, the totalizer was declared inoperable. Subsequent releases of the VUCDT were made (July 7 and 9) by transferring the contents to the floor drain tank (FDT) and into the RC discharge. During this time, a pneumatic fitting on the totalizer was discovered to be leaking, and was subsequently tightened.

On July 10, the totalizer was tested to determine its functional operability following the repair of the pneumatic fitting. The totalizer still indicated a release volume much greater than which was present and it continued to indicate flow after the pump was turned off and associated valves closed.

The Foxboro totalizer will be replaced with one manufactured by Moore Industries. This new integrator should eliminate the problems associated with the Foxboro unit. It will be installed upon its receipt at the station.

SAFETY ANALYSIS: A representative, composite sample of the volume released was collected as required by Technical Specifications. The total volume was calculated by utilizing the flow rate chart recorder vs. amount of time released.

Chemical and radiological analysis confirmed that the contents released were within specified limits for operation. Thus, the safe operation of the plant and the health and safety of the public were not affected by this incident.

CORRECTION ACTION: The leaking pneumatic fitting was repaired, and although this improved the instrument's performance, it still provided information that was grossly in error.

Noting that a similar previously identified problem existed with the containment sump discharge flow monitor, Duke Power Company will replace both of these gages with a solid state pneumatic conversion integrator from another manufacturer. To avoid future problems until the new totalizer is installed, we have decided to transfer all volume of liquid in the VUCDT to the FDT, where it is released via EMF-49 through the Liquid Waste System.