DUKE POWER COMPANY
OCONEE UNIT 3

Report No.: AO-287/75-7

Report Date: June 27, 1975

Occurrence Date: June 13, 1975

Facility: Oconee Unit 3, Seneca, South Carolina

Identification of Occurrence: Excessive Reactor Coolant System cooldown rate

Conditions Prior to Occurrence: Shutdown in progress

Description of Occurrence:

On June 13, 1975, a routine shutdown for maintenance was in progress on Oconee Unit 3. When reactor power had decreased to approximately 15 percent, a minor system transient occurred which resulted in the opening of power-actuated pressurizer relief valve 3RC-66. Valve 3RC-66 remained open and a Reactor Coolant System depressurization continued until isolation valve 3RC-4 was shut. The Reactor Coolant System temperature and pressure were 460°F and 720 psi, respectively, when the depressurization was terminated. The shutdown was continued with a cooldown rate of 100°F/hr as specified in Technical Specification 3.1.2.3; however, when the initial drop in temperature due to depressurization was combined with the subsequent cooldown, the cooldown rate for the first hour was 101°F.

Designation of Apparent Cause of Occurrence:

The apparent cause of this occurrence was operator error, in that the operator did not consider the initial RC temperature drop, which occurred during depressurization, when establishing the subsequent cooldown rate.

The reason 3RC-35 remained open was due to boric acid crystal buildup on the connecting pin of the lever arm of the pilot valve. In addition, a solenoid-operated plunger was stuck in the open position.

Analysis of Occurrence:

This incident resulted in exceeding the allowable cooldown rate of 100°F/hr by 1°F/hr. Due to the design conservatism of the reactor vessel, and transients which have previously been analyzed, it can be concluded that the health and safety of the public was not affected.

Corrective Action:

In the future after such a transient, an evaluation will be performed to determine the maximum allowable cooldown rate to be utilized. Valve 3RC-66 was removed, repaired, and replaced.

# Appendix B

Abnormal Occurrence Report AO-287/75-7 August 8, 1975.