

June 28, 2000

MEMORANDUM TO: Bruce Burgess, Chief  
Technical Support Branch

FROM: Ronald N. Gardner, Chief */RA/*  
Electrical Engineering Branch

SUBJECT: SIGNIFICANT INSPECTION FINDING

While involved in an engineering inspection at the Monticello Plant from March 13 to 24, 2000, Darrell Schrum of the DRS Mechanical Engineering Branch identified a problem with inadequate engineering evaluation for three installed jumper bypasses (temporary modifications). The finding was significant and should be recognized as a significant inspection finding.

During a recent updated safety analysis report review, licensee personnel had re-analyzed a high energy line break (HELB). Based on the re-analysis, licensee personnel determined that a large pipe break near the reactor feedpumps would cause substantial flooding of the turbine building including possible flooding of the Division 1, 4kV switchgear room. The HELB analysis assumed the loss of offsite power and the Division II emergency diesel generator (EDG), which was considered the worst single case active failure. The Division I breakers were required to crosstie the unaffected EDG to the Division 2 Bus work. This flooding could potentially have lead to the loss of both divisions of the 4kV distribution system.

LER 2000-004, "Re-analysis of the High Energy Line Break Resulted in Potential Loss of Division 1, 4kV Switchgear" was written. Three jumper bypasses were installed to correct the problem and prevent the possible flooding of the switchgear room. These jumper bypasses were:

Jumper Bypass 99-62—This jumper bypass required that metal plates be added to the bottom of doors 201, 202, and 479 to prevent water from flowing under the doors.

Jumper Bypass 2000-81—This jumper bypass required that a two foot barrier be constructed outside the Division 1, 4kV switchgear room to prevent flooding of the switchgear room.

CONTACT: A. Walker (DRS)  
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Jumper Bypass 2000-89—This jumper bypass required that an additional seal plate be added to the bottom of door 479 to provide additional protection to prevent water from flowing under the door.

During a walk down of the jumper bypasses, the inspector raised a question about a floor drain, which was located in the Division 1, 4kV switchgear room. The drain was a part of the normal non-contaminated waste water system and was directly connected to the potentially flooded areas of the turbine building. Licensee personnel determined that the floor drain had not been plugged and the drain system would have provided a path for water to flow into the switchgear room. A water level exceeding 3 1/4 inches would cause the loss of the 125 volts DC control power and make the breakers inoperable.

Licensee personnel took immediate actions to correct the problem. Condition report 20001218 was written and issued to enter this problem into the corrective action system, Jumper Bypass 2000-94 was written and the drain in the switchgear room floor was plugged to prevent water from entering the area through the drain.

A non-cited violation was written on the failure to provide adequate engineering evaluations for the three temporary design changes.

cc: J. Grobe, DRS  
S. Reynolds, DRS