

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region III staff on this date.

OK

Facility: Zion, Units 1 & 2
 Zion, Illinois
 Docket Nos. 50-295
 50-304

Licensee Emergency Classification
 General Emergency _____ Site Area Emergency _____
 Alert _____ Unusual Event X N/A _____

DCD

Subject: TRANSFORMER TRIP AND DIESEL GENERATOR FAILURE

At 9:59 a.m. (CST) on November 27, 1990, the Unit 2 System Auxiliary Transformer tripped for unknown reasons after its deluge system activated. The affected busses were automatically transferred to the Unit Auxiliary Transformer, which draws its power from the Unit 2 Main Transformer.

The two Zion units are interconnected, and the System Auxiliary Transformer for each unit functions as a reserve transformer for the other unit. At the time of the Unit 2 transformer failure, Unit 1 had an emergency diesel generator out of service. (Each unit has two diesel generators with a fifth diesel generator as a swing diesel generator for either unit.) The Unit 1 Technical Specifications require that the plant be shut down within 5 hours if its reserve transformer and a diesel generator are out of service. Therefore, the licensee initiated a Unit 1 shutdown, and declared an Unusual Event under its emergency plan. Repairs to the Unit 1 emergency diesel generator were subsequently completed, the shutdown process was halted, and the Unusual Event classification was terminated at 2:10 p.m.

At 8:50 p.m. a lubricating oil leak developed during surveillance testing of the swing diesel generator and it was declared inoperable. This failure (coupled with the Unit 2 System Auxiliary Transformer still being out of service) required both units to shut down within 5 hours. A second Unusual Event classification was declared.

The licensee replaced a flexible lubricating oil hose on the swing diesel generator and successfully tested the unit. The Unusual Event classification was terminated at 1:26 a.m. on November 28, 1990.

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As of 8 a.m., Unit 1 was being returned to full power, and Unit 2 was at 75 percent power, awaiting return to service of the System Auxiliary Transformer later in the day.

At 2:15 p.m., the Unit 2 System Auxiliary Transformer was declared operable and both Units 1 and 2 have returned to normal operation. The cause of the transformer trip was due to arcing across an insulator.

The resident inspectors were in the control room at the time of the initial transformer trip. They returned to the plant site upon failure of the swing diesel generator and monitored plant activities until the Unusual Event was terminated. The resident inspectors and Region III (Chicago) will monitor the licensee's investigation of the failures and associated corrective actions.

The State of Illinois will be informed. The information in this Preliminary Notification has been reviewed with licensee management.

The licensee notified the NRC Operations Center of the initial transformer failure at 11:05 a.m. (CST) on November 27, 1990. This information is current as of 3:00 p.m. November 28, 1990.

CONTACT: *R.B. Landsman*
R. B. Landsman
388-5587

W. D. Shafer
W. D. Shafer
388-5654