April 24, 2012

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE - PNO-IV-11-009B

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. Some information is as initially received without verification or evaluation by the Region IV, Arlington, Texas staff.

Facility
South Texas Project Nuclear Operating Company
South Texas Project Unit 2
P.O. Box 289
Wadsworth, TX 77483
Docket: 50-499
License No. NPF-80

Licensee Emergency Classification
___ Notification of Unusual Event
___ Alert
___ Site Area Emergency
___ General Emergency
_X_ Not Applicable

SUBJECT: Update to South Texas Project Unit 2 Reactor Trip and Extended Outage

DESCRIPTION:

This preliminary notification supplements information in PNO-IV-11-009 and PNO-IV-11-009A, which documented the forced shutdown of South Texas Project Unit 2 on November 29, 2011, due to a main generator fault. Automatic protective features for the main generator caused it to go offline, resulting in a turbine trip and a reactor trip per design at 3:29 a.m. A ground fault had occurred in the stator, which is the stationary piece of the main generator. The reactor remained in Cold Shutdown while the main generator was repaired over the past several months.

The licensee determined that the most likely cause of the fault was a very small leak in a hollow strand of one of the stator cooling coils. The leak eventually resulted in the coil insulation failing, which in turn resulted in a catastrophic failure to two of the 72 stator coils in the generator. During further inspection, in addition to the stator coil damage, it was determined that the rotor and the hydrogen cooler were also damaged. The repairs to the main generator have been completed. The NRC independently reviewed the root cause analysis of the main generator fault and observed reassembly of the main generator. The licensee restarted Unit 2 and began generating electricity on Sunday, April 22, 2012. The NRC resident inspectors also monitored the Unit 2 restart.

Unit 1 was unaffected by the event and continues to operate at 100 percent power.

The information presented herein has been discussed with the licensee and is current as of 3:00 p.m. CDT on April 23, 2012.

ADAMS ACCESSION NUMBER: ML12115A339

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