

Licensee/Facility:

NEBRASKA PUBLIC POWER DISTRICT
Cooper
Columbus, Nebraska
Dockets: 050-00298
[1] GE-4

Notification:

MR Number: 4-2003-0009
Date: 10/16/2003
Call from RI
License No:

Subject: HIGH PRESSURE TURBINE BEARING OIL FIRE

Discussion:

On October 16, 2003, Cooper Nuclear Station was operating at approximately 100 percent power. At approximately 12:05 p.m. (CST) the licensee identified smoke near Bearing 1 on the main high pressure turbine. At 12:19 p.m., a small fire was observed in the same area. The fire brigade was dispatched. At 12:30 p.m., the licensee declared a Notification of Unusual Event due to the fire within the protected area lasting greater than 10 minutes. The fire was initially extinguished at 12:39 p.m. Between 12:39 p.m. and 1:36 p.m. the fire reignited and was extinguished two more times by the fire brigade which had remained in the area. During this time period, the licensee reduced power to 65 percent to help reduce radiation exposure rates for the personnel working in the turbine building.

When the fire was finally extinguished, the licensee conducted inspections in the area of the fire and did not identify any active combustion source, such as lubricating oil. In addition, there was no damage to the turbine or areas surrounding the fire. At 3:41 p.m., the licensee exited the Notification of Unusual Event and, at 1 a.m. on October 17, the licensee returned the unit to 100 percent power.

The licensee's preliminary cause for the fire was the ignition of lubricating oil that had leaked by the Bearing 1 seal during a period when maintenance required the turbine oil reservoir vapor extractors to be out of service. The oil leaked in an area of steam piping that had a temperature sufficient to ignite the oil.

REGIONAL ACTION:

During the event, Region IV monitored the licensee's actions. The NRC resident inspectors provided continuous coverage of licensee activities onsite during the event. Followup inspection will be performed to review the licensee's root cause evaluation and corrective actions.