

**United States Environmental Protection Agency**  
**Region IV**  
**POLLUTION REPORT**

**Date:** Friday, April 20, 2007

**From:** Jeffery Crowley

**Subject:** Final POLREP

Carolina Power and Light/Knightdale  
SR 2501, Knightdale, NC  
Latitude: 35.7953000  
Longitude: -78.4356000

<b>POLREP No.:</b>	2	<b>Site #:</b>	
<b>Reporting Period:</b>	4/16/2007 - 4/20/2007	<b>D.O. #:</b>	
<b>Start Date:</b>	4/15/2007	<b>Response Authority:</b>	OPA
<b>Mob Date:</b>	4/15/2007	<b>Response Type:</b>	Emergency
<b>Demob Date:</b>	4/17/2007	<b>NPL Status:</b>	Non NPL
<b>Completion Date:</b>		<b>Incident Category:</b>	Removal Assessment
<b>CERCLIS ID #:</b>		<b>Contract #</b>	
<b>RCRIS ID #:</b>		<b>Reimbursable Account #</b>	
<b>FPN#</b>			

**Site Description**

Once the OSC arrived on scene he was met by representatives from Carolina Power and Light (CPL) who promptly conducted a safety briefing with the OSC and began a Site tour. CPL believes that the spill occurred when one of the transformers (of which there are 7) received a sudden power surge causing excess pressure to build within the reactor. Within milliseconds the transformer blew, causing cracks in the sides and top of the transformer. The oil (10-C mineral oil) leaked from the cracks formed from the blowout. The spill was discovered at around 9:00 on April 15, 2007 and was reported to the NRC when it was discovered that the oil had migrated offsite.

The transformer has a capacity of 18,866 gallons, of which 1,800 gallons were recovered, leaving 17,000 gallons that may have released. There is some secondary containment around the transformers in the form of a earthen berm lined with riprap about the size of a human fist. There was no visible staining on the rocks from the oil. Also, in the secondary containment were drains, most likely for storm water. Another possible way of migration was in the form of cable trenches nearby that also feed into the stormwater drainage system. There was oil visible in these trenches.

The oil migrated through the stormwater system and offsite to the south. The oil then fed into a unnamed creek. The unnamed creek flows for about 1/3 miles under HWY 264 and eventually into Marks Creek. Marks Creek feeds a marsh and eventually forms Lake Myra. The total distance from the Facility to Marks Creek is about 1.5 miles. There is a visible sheen of oil all the way to Lake Myra.

Upon arrival by the OSC at 7:30 4/16/2007 the contractor for CPL, A&D environmental were conducting two operations. The first is placing boom and sorbent along the unnamed creek and Marks Creek. The second was using vacuum trucks to remove the oil from the unnamed creek. No boom was placed at the outfall of Marks Creek into Lake Myra.

CPL assured the OSC that the oil released from the transformer contained no PCB's.

**Current Activities**

During the Site walkthrough and offsite contamination investigation conducted during the morning of 4/16, the OSC and CPL decided on several locations where underflow dams would be effective as well as made the decision that there needed to be some sort of hard boom containment in Lake Myra to contain future releases from the marsh.

Around noon representatives from North Carolina Department of Water Quality (DWQ) and Wake County EMA (Wake) arrived on scene. The OSC worked out cleanup oversight with the two parties. Wake as an MOU with NCDENR for oversight. Then, Wake and DWQ conducted their own site investigation and agreed with the proposed course of action.

Thus, during the afternoon of 4/16, A&D placed the first underflow dam where the unnamed creek flowed under Hwy 264. This location allowed easy access for vac trucks. The second underflow dam was placed directly to the south of the facility also in the unnamed creek. This location will provide a collection point for an oil still trapped at the facility, whether in the storm drains or in sediment that may migrate.

Hard containment boom was placed just south of the marsh on Lake Myra. A location was found that would allow easy access for vac trucks. The thought here is that rain will be the most effective method of removing the oil trapped in the marsh. The hard boom will remain here and be periodically checked by the cleanup contractor and any oil removed when necessary.

Later in the afternoon the OSC conducted an SPCC inspection on the facility due to the release. Once the SPCC inspection was finished, the OSC demobilized from the Site and DWQ and Wake assumed oversight for the cleanup.

#### **Planned Removal Actions**

Periodic oil removal will be conducted by A&D at the two underflow dams and at Lake Myra. Periodic maintenance will also be conducted on these structures. CPL also plans a soil investigation in the area near the transformer to check for any soil contamination.

#### **Next Steps**

DWQ and Wake County will maintain future oversight of the Site cleanup.

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