

**LaSalle Environmental Audit
Response to Request for Additional Information**

Index #: 037

RAI #: SW-09

Category: Water Resources

Statement of Question:

Identify when the most recent blowdown pipeline and intake pipeline breaks have occurred, respectively. For the most recent blowdown line break, summarize the environmental effects of the break (i.e., volume of effluent released, area affected, results of any analyses conducted of the release); the impact on plant operations if any, and corrective action taken. Also, provide copies of release reports/correspondence associated with breaks that were submitted to regulatory agencies.

Response:

The most recent break in the blowdown pipeline occurred on July 13, 2012. The notice of this break sent to the IEPA and U.S. EPA Region V is being provided as Attachment 1 to this response. The notice contains information concerning impacts of the break.

The most recent break in the makeup pipeline occurred on January 23, 2014. The notice of this break sent to the IEPA and U.S. EPA Region V is being provided as Attachment 2 to this response. The notice contains information concerning impacts of the break.

To date, no makeup or blowdown pipeline breaks have affected reactor operation. Pipeline repairs typically involve establishing a temporary roadway to the location of the break, excavating to expose the broken pipe, removal and replacement of the broken pipe section, backfill of the excavation site, grading to return the surface to approximate original contour, and stabilization of the excavation site and temporary roadway to prevent erosion pending revegetation.

As Section 2.2.3 of the license renewal ER indicates, Exelon Generation is implementing the following actions to reduce the frequency of breaks and impacts when breaks occur:

- A long-term plan to replace existing relief valves in both pipelines with new valves that allow controlled venting, which can mitigate some effects of pressure surges.
- The frequency of makeup pipeline pressure transients has been reduced by raising the traveling screen differential pressure setpoint and by installing traveling screen digital recorders. The digital recorders provide data on travelling screen parameters that are monitored by operators to identify abnormal trends that suggest when screen maintenance would be appropriate to prevent makeup pump trips.
- Parts are kept on hand for replacement of one section of pipe.
- A plan is maintained for rapid repairs to the pipeline.
- If deemed necessary, backfill is applied in critically eroded areas.
- Procedures dictate conservative control of the blowdown valve and the makeup pumps.
- In accordance with applicable plant procedures, operator field rounds have been modified to include semi-annual verification of pipeline integrity as well as pipeline integrity verification after filling the makeup and/or blowdown pipes.

List of Attachments:

1. Letter from Exelon Generation (P. Karaba) to Illinois Environmental Protection Agency regarding LaSalle County Station – Blowdown Line Failure, August 6, 2012.
2. Letter from Exelon Generation (H. Vinyard) to U.S. Environmental Protection Agency and Illinois Environmental Protection Agency regarding LaSalle County Station – Make-up Line Failure, February 21, 2014.

RAI # SW-09
ATTACHMENT 1



Exelon Generation

LaSalle Station

LaSalle County Station
1000 North Grand Avenue East
Springfield, IL 62794-9276

August 6, 2012

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Springfield, IL 62794-9276

Subject: **LaSalle County Station – Blowdown line failure –**
NPDES Permit No. IL0048151

Dear Sir:

In accordance with NPDES Permit Standard Condition 12, LaSalle County Station is submitting the attached notice concerning the failure of a water blowdown line. The line returns water from the LaSalle County Station cooling pond to the Illinois River. This notice is being sent to both above addresses on this date and will be included with the July 2012 Discharge Monitoring Report.

If there are any questions, please contact Mr. Bill Buinickas of my staff at (815) 415-3235.

Sincerely,

Peter J. Karaba
Plant Manager
LaSalle County Station

PJK/BB/dmd
Enclosures

cc: Ken Lyons – Chemistry Dept. Manager
Kevin Hersey – Exelon Nuclear Corporate Environmental
Regulatory Assurance – LaSalle
Central File – 2H103

EXELON GENERATION COMPANY, LLC
LASALLE COUNTY STATION
NPDES PERMIT NO. IL0048151

Outfall Name and Number

Blowdown line failure.

Parameter and Permit Limit

Not Applicable

Description, Date and Duration

On July 13, 2012, at approximately 1510, LaSalle County station personnel identified the location of a blowdown line failure. The Cooling Pond Lake Blowdown system was isolated July 13, 2012 at 1555. The blowdown line failure is attributed to high pressure surges on the piping when the blowdown release valve was exercised earlier.

The Cooling Pond Blowdown line was determined to have ruptured. This line is used for returning water from the station's Cooling Pond to the Illinois River. The line operates in conjunction with permitted NPDES Outfall 001, Cooling Pond Blowdown, to maintain the station Cooling Pond level.

Review of the Operations log revealed that the blowdown release valve was cycled on July 11, 2012 at 1706. The line break occurred between this time and discovery of the line break on July 13, 2012 at 1510. An indeterminate amount of the cooling pond was discharged to the Illinois River.

Corrective and Preventative Actions

The Cooling Pond Make Up and Blowdown lines were isolated. A sample of the discharged blowdown water was collected and analyzed for pH and Total Residual Chlorine (TRC). Results were determined to be 7.87 S.U. and 0.09 ppm respectively, which are within the acceptance levels of the NPDES permit limits for the Blowdown line outfall. Based on this analysis, the failure had no significant effect on the environment.

Station Engineering and Maintenance inspected the ruptured line, and repairs were initiated. The failed line section has been replaced with a new section of pipe. The system was returned to service July 20, 2012.

Name and Number of Facility Contact

William A. Buinickas Environmental Specialist (815) 415-3235

Heather Meyer, Environmental Specialist (815) 415-3243

RAI # SW-09
ATTACHMENT 2



Exelon Generation[®]

LaSalle County Generating Station

2601 N. 21st Road
Marseilles, IL 61341
www.exeloncorp.com

February 21, 2014

US Environmental Protection Agency
Region V, Enforcement Division
ATTN: Chief, Compliance Unit
77 West Jackson Street
Chicago, IL 60604

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Springfield, IL 62794-9276

Subject: **LaSalle County Station – Make-up line failure –
NPDES Permit No. IL0048151**

Dear Sir:

In accordance with NPDES Permit Standard Condition 12, LaSalle County Station is submitting the attached notice concerning the failure of a water supply line. The water line provides make-up water from the Illinois River to the LaSalle County Station cooling pond. This notice is being sent to both above addresses on this date and will be included with the January 2014 Discharge Monitoring Report.

If there are any questions, please contact Mr. Bill Buinickas at (815) 415-3235.

Sincerely,

Harold T. Vinyard
Plant Manager
Exelon Generation Company, LLC

HTV/WAB/dk
Enclosures

cc: Michael Martin – LaSalle Chemistry Manager
Kevin Hersey – Exelon Nuclear Corporate Environmental
Regulatory Assurance – LaSalle
Central File

EXELON GENERATION COMPANY, LLC
LASALLE COUNTY STATION
NPDES PERMIT NO. IL0048151

Outfall Name and Number

River Lift Station – Line failure on discharge from the river lift pumps.

Parameter and Permit Limit

Not applicable.

Description, Date and Duration

On January 23, 2014, at approximately 1246, LaSalle County station personnel identified the location of a make-up line failure.

The Cooling Pond Make Up line was determined to have ruptured. This line is used for pumping make up water from the Illinois River to the station's Cooling Pond. The pre-stressed concrete cylindrical pipe (PCCP) line failed.

A sample of the discharged make up water was collected. Analysis determined it had a pH of 8.76 Standard Units, and a Total Residual Chlorine of 0.04 ppm which is consistent with the Illinois River. Based on this analysis, the line failure had no significant effect on the environment.

Corrective and Preventative Actions

The Cooling Pond Make Up and Blowdown lines were isolated. Repairs to the broken line were promptly initiated and the line is currently being repaired.

Name and Number of Facility Contact

William A. Buinickas Environmental Specialist

(815) 415-3235