W0998020002

STATE OF ILLINOIS

NUCLEAR POWER PLANT

RADIONUCLIDE RELEASE REPORT

INITIAL REPORT

The following information must be submitted to the Illinois Environmental Protection Agency and to the Illinois Emergency Management Agency to report a release of a radionuclide pursuant to 35 Ill. Adm. Code 1010.202. This initial report must be submitted to each agency via phone and electronically within 24 hours of the release. Please attach additional sheets as needed.

This form can also be used by a licensee that, pursuant to the last section of 35 Ill. Adm. Code 1010.104, reports a release of radionuclides that is not required to be reported under Section 13.6 of the Environmental Protection Act.

Report Date/Time July 1, 2010 0900 hours

Nuclear Generation Station Name LaSalle County Station

Address 2601 N. 21st Road

City, State, Zip Marseilles, IL 61341

Name of Principal Executive Officer David Wozniak

Telephone Number 815-415-3600

Signature David Wozniak

Name of Licensee Exelon Nuclear

Address 2601 N. 21st Road

City, State, Zip Marseilles, IL 61341

Radionuclide Release Initial Report Electronic Format

Specific Location of Release ____Unit 1 Cycled Condensate (CY) Storage Tank

Time of Release _____1030 hours June 30, 2010_____

Duration of Release _____Continuing_____

Identify Radionuclide Release ___Tritium_____

Estimate the Quantity of Release (Curies) ____>0.002 Curies*_____

Estimate of Volume Released ____Unknown; estimated > 150 gallons_____

Estimate of Concentration (pCi/L) of Release __3.96 x 10^6 pCi/l_____

Estimate of Flow-Rate, if on-going __Total Flow-Rate Unknown; (Note: estimated 2 gallons per hour into tank containment area)__

*This report is being made based on the likelihood of the release exceeding 0.002 Curies.

General Description of Release (including, but not limited to, whether release was to groundwater, surface water, or soil; a description of release area; and the size of affected area)

While preparing to remove rainwater from the LaSalle Cycled Condensate (CY) Storage Tanks containment area, tritium concentrations above detectable limits was found. Subsequent follow-up visual inspections of the CY tanks and accessible piping areas indicated potential tank leakage from the Unit 1 CY tank identified at 1030 hours on June 30, 2010. The visual indications identified the leak originating between the tank bottom area and concrete pad that it sets upon. The Unit 1 CY tank holds approximately 270,000 gallons of cycled condensate water with a tritium concentration of approximately 3.96 x 10^6 pCi/l.

Confirmatory actions led to sampling of groundwater test wells in the vicinity to determine if any leakage had reached soil and/or groundwater. A positive groundwater test well sample result was obtained at 1800 hours from the well immediately adjacent to the CY tank (approximately 25 feet directly down gradient). Sample results indicated a tritium concentration of 715,000 pCi/l, with a confirmatory sample result of 696,000 pCi/l. This well had been found to be free of detectable levels of tritium when it was last sampled on June 16, 2010. The identified tritium concentration levels in the sample well make it likely that the release exceeds 0.002 Curies.

Radionuclide Release Initial Report Electronic Format

Actions Taken in Response to Release

Sampling of the additional wells to quantify the release is in progress. Plans to drain the Unit 1 CY tank and repair the leak are in progress.

Known and Anticipated Impacts to Human Health and/or Environment

No current impact to human health since there has not been a release from the site. Impact to the environment is limited to the ground water in the vicinity of the Unit 1 Cycled Condensate Storage Tank. Sampling of groundwater sample wells continues.

Additional Information
None

Number for reporting via telephone:

Illinois EPA – (217) 782-3637

IEMA – (800) 782-7860
(217) 782-7860 (if calling from outside Illinois)

Submit electronically to:

IEPA at "EPA.RadRelease@Illinois.gov"

IEMA at "ema.npprelease@illinois.gov"

Contacts for Further Information

Name David Rhoades

Address 2601 N. 21st Road

City, State, Zip Marseilles, IL 61341

Telephone Number 815-415-3700

Radionuclide Release Initial Report Electronic Format

Name _____Mike Martin_____

Address _____2601 N. 21st Road_____

City, State, Zip _____Marseilles, IL 61341_____

Telephone Number_____815-415-3201_____

STATE OF ILLINOIS

NUCLEAR POWER PLANT

RADIONUCLIDE RELEASE REPORT

FOLLOW-UP REPORT

The following information must be submitted electronically to the Illinois Environmental Protection Agency (EPA) and to the Illinois Emergency Management Agency (IEMA) pursuant to 35 Ill. Adm. Code 1010.204 as a follow-up report to the reporting of a release of a radionuclide. Please attach additional sheets as needed.

This form can also be used as a follow-up report by a licensee that, pursuant to the last Section of 35 Ill. Adm. Code 1010.104, reports a release of radionuclides that is not required to be reported under Section 13.6 of the Environmental Protection Act.

This follow-up report must be submitted electronically to both the Illinois EPA and IEMA within 5 business days after the reporting of the release. Hard copies of the electronic reports must be submitted to the Illinois EPA and IEMA within 5 business days after the submission of the electronic report.

Initial Report Date/Time:	July 1, 2010 0900 hours (IL-2010- 0735)
Follow-up Report Date:	July 8, 2010
Nuclear Generation Station Name:	LaSalle County Nuclear Station
Address:	2601 N. 21st Road
City, State, Zip:	Marseilles, Illinois 61341
Name of Principle Executive Officer:	David B. Wozniak
Telephone Number:	815-415-3600

Signature: David B Wozniak

If any of the information provided in the initial report for this release has changed, please provide and update of changed information.

Estimate of Quantity Released but not Recovered (Curies)

> 0.002 Curies

Estimate of Volume Released but not Recovered

Unknown at this time

Estimate of Concentration (pCi/L)
Released but not Recovered

The tritium concentration in the Unit 1 CY tank was approximately 3.96 x 10^6 pCi/L.

See Attachment A

Updated Description of Activities Taken in Response to the Release

For continuity, the information from our initial report dated July 1, 2010, is provided below:

General Description of Release (including, but not limited to, whether release was to groundwater, surface water, or soil; a description of release area; and the size of affected area)

While preparing to remove rainwater from the LaSalle Cycled Condensate (CY) Storage Tanks containment area, tritium concentrations above detectable limits were found. Subsequent follow-up visual inspections of the CY tanks and accessible piping areas indicated potential tank leakage from the Unit 1 CY tank identified at 1030 hours on June 30, 2010. The visual indications identified the leak originating between the tank bottom area and concrete pad that it sets upon. The Unit 1 CY tank holds approximately 270,000 gallons of cycled condensate water with a tritium concentration of approximately 3.96 x 10^6 pCi/L.

Confirmatory actions led to sampling of groundwater test wells in the vicinity to determine if any leakage had reached soil and/or groundwater. A positive groundwater test well sample result was obtained at 1800 hours from the well immediately adjacent to the CY tank (approximately 25 feet directly down gradient). Sample results indicated a tritium concentration of 715,000 pCi/l, with a confirmatory sample result of 696,000 pCi/l. This well had been found to be free of detectable levels of tritium when it was last sampled on June 16, 2010. The identified tritium concentration levels in the sample well make it likely that the release exceeds 0.002 Curies.

RADIONUCLIDE RELEASE FOLLOW-UP REPORT ELECTRONIC AND HARD COPY FORMAT

Actions taken in Response to Release

The Unit 1 Condensate Storage (CY) tank draining was completed on July 4, 2010. Water drained from the tank has been transferred and stored internal to plant systems. The tank floor was cleaned and inspected. Initial internal visual inspection of the tank has identified three small holes each less than 1/2 inch in diameter in the tank floor. Inspection of all welds located on the tank floor and floor to tank wall were completed on July 6, 2010 with no faulty welds identified.

On-site monitoring wells, in the vicinity of the Unit 1 CY tank, are being monitored on an increased frequency. Except for the Unit 1 CY tank containment area and the monitoring well immediately adjacent to the tank, no detectable levels of tritium have been identified in any surrounding monitoring locations. See Attachment A for details of sampling locations and results.

Additional Activities Planned in Response to the Release

Ultrasonic testing methods are in progress to determine overall condition of the entire tank floor. Once the tank floor condition is known, repair activities will begin. The required material and personnel are on-site to perform tank floor repairs, as appropriate.

The station has begun removal of water inside the CY storage tank containment area. Weather has delayed completion of this work. Water removal continues as weather permits.

Additional Information

The station will review the possibility of installing additional on-site sample wells to monitor the affected area.

Attach copies of all laboratory analysis to confirm the presence of, or conducted in response to, the release (if lab analyses have been conducted).

A table of laboratory analytical results is provided in Attachment A.

Also attach a plan view and, if available, geological cross-section maps, showing, at a minimum, the location of the release, the locations of samples taken to confirm the release or taken in response to the release (if samples have been taken), the measured modeled extent of release (if known), the boundary of the licensee controlled area, and structures, roads, and other surface features.

Attachment B provides two maps providing the information requested.

Submit electronically to:

IEPA at EPA.RadRelease@Illinois.gov

IEMA at 'ema.npprelease@illinois.gov"

RADIONUCLIDE RELEASE FOLLOW-UP REPORT ELECTRONIC AND HARD COPY FORMAT

Submit hard copies to the addresses below:

Illinois Environmental Protection Agency
Bureau of Water
Groundwater Section
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

Illinois Emergency Management Agency
Division of Nuclear Safety
Bureau of Environmental Affairs
1035 Outer Park Drive
Springfield, Illinois 62704

Contacts for Further Information

Name:	David Rhoades
Address:	2601 N. 21st Road
City, State, Zip	Marseilles, Illinois, 61341
Telephone Number:	815-415-3700
Name:	Mike Martin
Address:	2601 N. 21st Road
City, State, Zip	Marseilles, Illinois, 61341
Telephone Number:	815-415-3201

Attachment A

This report provides the tritium concentration of samples taken from applicable monitoring locations in relation to the Unit 1 CY Tank leak.

LLD = Lower Limit of Detectability (<1000 pCi/L)

Sample Points	Date	Tritium Concentration pCi/L
MW-LS-104S	6/30/10	715,000
	7/1/10	625,000
	7/1/10	625,000
	7/2/10	793,000
	7/3/10	1,230,000
	7/4/10	1,160,000
	7/5/10	1,180,000
	7/6/10	783,000
	7/7/10	608,000
	7/8/10	525,000
CY Berm	6/30/10	20,700
	7/2/10	29,900
	7/4/10	35,000
	7/5/10	36,200
	7/6/10	32,400
	7/7/10	22,500
	7/8/10	15,200
U1 Oil Separator	7/2/10	<LLD
	7/3/10	<LLD
	7/4/10	<LLD
	7/5/10	<LLD
	7/5/10	<LLD
	7/6/10	<LLD
	7/7/10	<LLD
	7/8/10	<LLD
MW-LS-101S	7/1/10	<LLD
MW-LS-102S	7/2/10	DRY
MW-LS-103S	7/2/10	<LLD
MW-LS-105S	7/1/10	<LLD
MW-LS-106S	7/2/10	<LLD
MW-LS-107S	7/1/10	<LLD
MW-LS-108S	7/2/10	<LLD
MW-LS-109S	7/2/10	<LLD
MW-LS-111S	7/1/10	<LLD
	7/2/10	<LLD
HP-2	7/2/10	<LLD
HP-5	7/2/10	<LLD
HP-7	7/2/10	<LLD
HP-10	7/2/10	<LLD
SW-LS-101	7/1/10	<LLD
SW-LS-102	7/1/10	<LLD
	7/1/10	<LLD
	7/2/10	<LLD
	7/3/10	<LLD
	7/4/10	<LLD
	7/6/10	<LLD
	7/7/10	<LLD
	7/8/10	<LLD
SW-LS-103	7/1/10	<LLD

Note: All above monitoring well locations were < LLD during the regular quarterly sampling event conducted during week of June 14, 2010

Attachment B

Maps