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RA06-46

July 31, 2006

Mr. Stuart A. Richards, Deputy Director  
Division of Inspection and Regional Support  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

LaSalle County Station, Units 1 and 2  
Facility Operating License No. NPF 11 and NPF-18  
NRC Docket No. 50-373 and 50-374

Subject: Groundwater Protection – Data Collection Questionnaire

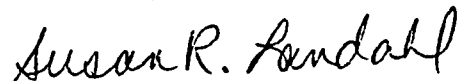
Dear Mr. Richards:

The nuclear industry, in conjunction with the Nuclear Energy Institute, has developed a questionnaire to facilitate the collection of groundwater data at commercial nuclear reactor sites. The objective of the questionnaire is to compile baseline information about the current status of site programs for monitoring and protecting groundwater and to share that information with NRC. The completed questionnaire for LaSalle County Station is enclosed.

This submittal contains no new regulatory commitments.

Should you have any questions concerning this letter, please contact Mr. Terrence W. Simpkin, Regulatory Assurance Manager, at (815) 415-2800.

Respectfully,



Susan R. Landahl  
Site Vice President  
LaSalle County Station

Enclosure

cc: US NRC Document Control Desk  
Regional Administrator - NRC Region III  
NRC Senior Resident Inspector - LaSalle County Station  
NRR Project Manager – LaSalle County Station Units 1 and 2  
Ralph Andersen, Nuclear Energy Institute

**Industry Groundwater Protection Initiative  
Voluntary Data Collection Questionnaire**

**Plant: LaSalle Station**

**1. Briefly describe the program and/or methods used for detection of leakage or spills from plant systems, structures, and components that have a potential for an inadvertent release of radioactivity from plant operations into groundwater.**

- As part of a fleet-wide systematic assessment, LaSalle Station performed a technical review of each plant system and structure to determine if inadvertent releases from these systems could potentially impact the environment. Each system was evaluated and those system components that contain or could potentially contain radioactively contaminated liquids were identified and assessed to determine if a potential pathway to the environment existed. A cross-functional collegial team made up of personnel from Operations, Engineering and Chemistry performed the technical review.
- The plant systems, structures, processes, and components that have a potential for an inadvertent release are monitored to detect leakage or spills through an expansive radiation monitoring system (RMS), operator rounds and employee observations. Additionally, engineering control systems such as secondary containment, spill prevention, overflow detection and leak detection are used to detect and prevent releases from entering the environment.
- Examples of the surveillance programs and engineering controls employed at LaSalle are provided below:
  - Operations personnel perform routine surveillance rounds each shift. These rounds include the requirement to identify and report leaks and spills. Leaks and spills are addressed through: immediate clean-up, notifying supervision for assistance, writing a work request or initiating a Corrective Action Report.
  - System Engineers perform periodic walkdowns of the systems for which they are responsible. These walkdowns include the requirement to identify and report leaks and spills. Leaks and spills are addressed through: immediate clean-up, notifying supervision for assistance, writing a work request or initiating a Corrective Action Report.
  - Plant water usage is trended via Radwaste Processing and any adverse trend is addressed immediately as this water is currently being recycled.

**2. Briefly describe the program and/or methods for monitoring onsite groundwater for the presence of radioactivity released from plant operations.**

- In 2006, there were 22 samples obtained from wells on site. 17 were from permanent shallow wells from locations around the perimeter of the site and the other 5 samples were obtained from temporary sampling points located along the radwaste discharge line and blowdown line areas.
- Per the REMP program, the site deep well that is used for employee drinking water is sampled quarterly. The samples are analyzed by an off site lab and the results are reported in the Annual Radiological Environmental Operating Report.

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- The Lower Limits of Detection (LLDs) used during the fleet wide assessment were:

Nuclide	Typical MDA (pCi/l)
Tritium (H-3)	200
Total Strontium – 89/90	2
Manganese (MN-54)	15
Ferrous Citrate (FE-59)	30
Cobalt (CO-58)	15
Cobalt (CO-60)	15
Zinc (ZN-65)	30
Zirconium (ZR-95)	15
Niobium (NB-95)	15
Cesium (CS-134)	15
Cesium (CS-137)	18
Barium (BA-140)	60
Lanthanum (LA-140)	15

**3. If applicable, briefly summarize any occurrences of inadvertent releases of radioactive liquids that had the potential to reach groundwater and have been documented in accordance with 10 CFR 50.75(g).**

- The LaSalle Station records inadvertent release of radioactive liquids in accordance with 10 CFR 50.75(g). As part of the fleet wide assessment, a third party environmental engineering firm was contracted to evaluate historic releases, if any, and determine if a potential pathway to the environment existed. Those releases that were determined to have potentially impacted groundwater were subsequently investigated as part of the fleet wide assessment. Based on the results of the hydrogeologic investigation, the historical releases that may have a current impact on groundwater are:
  - 1984/1985 - U1/2 High Pressure Core Spray (HPCS) return line to the Cycled Condensate (CY) storage tank line break.
  - September 2001 - U2 CY storage tank overflow.
- A copy of the detailed LaSalle hydrogeologic investigation report will be provided to the NRC.

**4. If applicable, briefly summarize the circumstances associated with any onsite or offsite groundwater monitoring result indicating a concentration in groundwater of radioactivity released from plant operations that exceeds the maximum contaminant level (MCL) established by the USEPA for drinking water.**

- There have been no identified instances of radioactivity released from the LaSalle Station that resulted in groundwater concentrations exceeding the USEPA maximum contaminant levels for drinking water.

**Industry Groundwater Protection Initiative  
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- 5. Briefly describe any remediation efforts undertaken or planned to reduce or eliminate levels of radioactivity resulting from plant operations in soil or groundwater onsite or offsite.**
- Remediation efforts taken as a result of the HPCS line break included excavation and disposal of the contaminated soil.