

July 11, 2000

Mr. Oliver D. Kingsley  
President, Nuclear Generation Group  
Commonwealth Edison Company  
ATTN: Regulatory Services  
Executive Towers West III  
1400 Opus Place, Suite 500  
Downers Grove, IL 60515

SUBJECT: LASALLE - NRC INSPECTION REPORT 50-373/2000008(DRS);  
50-374/2000008(DRS)

Dear Mr. Kingsley:

On June 23, 2000, the NRC completed an inspection at your LaSalle Nuclear Generating Station, Units 1 and 2. The enclosed report presents the results of that inspection, which were discussed on June 23, 2000, with Mr. J. Meister and other members of your staff.

The inspection was an examination of activities conducted under your license as they relate to radiation safety and to compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities, facility walkdowns, and interviews with personnel. Specifically, the inspection reviewed aspects of your occupational radiation safety program, and focused on access controls for radiologically significant areas. Also, your performance indicator data collection and reporting process was reviewed for the occupational radiation safety cornerstone.

Based on the results of this inspection, no findings were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

O. Kingsley

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We will gladly discuss any questions you have concerning this inspection.

Sincerely,

***/RA/***

Gary L. Shear, Chief  
Plant Support Branch  
Division of Reactor Safety

Docket Nos. 50-373; 50-374  
License Nos. NPF-11; NPF-18

Enclosure: Inspection Report 50-373/2000008(DRS);  
50-374/2000008(DRS)

cc w/encl: D. Helwig, Senior Vice President, Nuclear Services  
C. Crane, Senior Vice President, Nuclear Operations  
H. Stanley, Vice President, Nuclear Operations  
R. Krich, Vice President, Regulatory Services  
DCD - Licensing  
C. Pardee, Site Vice President  
J. Meister, Station Manager  
F. Spangenberg, Regulatory Assurance Supervisor  
M. Aguilar, Assistant Attorney General  
State Liaison Officer  
Chairman, Illinois Commerce Commission

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-373; 50-374  
License Nos: NPF-11; NPF-18

Report No: 50-373/2000008(DRS); 50-374/2000008(DRS)

Licensee: Commonwealth Edison Company

Facility: LaSalle Nuclear Generating Station, Units 1 and 2

Location: 2605 N. 21<sup>st</sup> Road  
Marseilles, IL. 51341-9756

Dates: June 19 - 23, 2000

Inspector: Wayne Slawinski, Senior Radiation Specialist

Approved by: Gary L. Shear, Chief, Plant Support Branch  
Division of Reactor Safety

# NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas) reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

<b>Reactor Safety</b>	<b>Radiation Safety</b>	<b>Safeguards</b>
<ul style="list-style-type: none"><li>● Initiating Events</li><li>● Mitigating Systems</li><li>● Barrier Integrity</li><li>● Emergency Preparedness</li></ul>	<ul style="list-style-type: none"><li>● Occupational</li><li>● Public</li></ul>	<ul style="list-style-type: none"><li>● Physical Protection</li></ul>

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.

## SUMMARY OF FINDINGS

LaSalle Nuclear Generating Station, Units 1 and 2  
NRC Inspection Report 50-373/2000008(DRS); 50-374/2000008(DRS)

This report covers a five-day period of announced inspection by a regional senior radiation specialist. The inspection reviewed aspects of the licensee's occupational radiation safety program and focused on the effectiveness of the licensee's access controls for radiologically significant areas. In particular, the inspector completed radiological boundary verifications, reviewed radiation work permits and as-low-as-is-reasonably-achievable plans for radiologically significant work activities, evaluated high radiation area incidents, and reviewed the radiation protection department's program for the identification and resolution of problems. In addition, the licensee's performance indicator data collecting and reporting process was reviewed for the occupational radiation safety cornerstone.

The significance of issues is determined by their color (green, white, yellow, red) and was determined by the Significance Determination Process in Inspection Manual Chapter 0609.

### **RADIATION SAFETY**

#### **Cornerstone: Occupational Radiation Safety**

- There were no findings identified.

## Report Details

### **2. RADIATION SAFETY**

Cornerstone: Occupational Radiation Safety

#### 2OS1 Access Controls for Radiologically Significant Areas

##### .1 Plant Walkdowns and Radiological Boundary Verifications

###### a. Inspection Scope

The inspector conducted walkdowns of the radiologically protected area (RPA) to verify the adequacy of radiological area boundaries and postings. Specifically, the inspector walked down numerous radiologically significant work area boundaries (high and locked high radiation areas) in the Unit 1 and 2 Reactor Building and Turbine Building, and performed confirmatory radiation measurements to verify that these areas and selected radiation areas were properly posted and controlled in accordance with 10 CFR 20, licensee procedures and Technical Specifications (TSs). The inspector also performed confirmatory surveys and accompanied a radiation protection supervisor to verify that affected turbine building areas were properly posted (down posted) and controlled following a Unit 2 trip on June 22, 2000.

###### b. Findings

There were no findings identified.

##### .2 Reviews of High Radiation Area Incidents

###### a. Inspection Scope

The inspector reviewed licensee documentation packages for all high radiation area events that occurred since the fourth quarter of 1999, to assess the licensee's effectiveness in characterizing problems, and evaluating safety significance, root cause and contributing factors. Selected events were discussed with radiation protection and chemistry staffs, and supporting information was independently reviewed to assess the adequacy of the licensee's evaluations.

###### b. Findings

A December 1999 high radiation area access control problem was documented in Inspection Report 50-373/99022-03(DRP); 50-374/99022-03(DRP), and a non-cited violation was issued for failure to maintain an area (the Unit 1 reactor water cleanup system valve aisle) with radiation levels greater than 1 rem/hr locked, contrary to Technical Specifications. The licensee determined that the incident was not reportable as a performance indicator (PI) occurrence based on the radiation protection department's assessment of the event, and information contained in Nuclear Energy Institute (NEI) Regulatory Assessment Performance Indicator Guideline NEI 99-02,

Revision 0. However, the inspector determined that the licensee's assessment of the event failed to consider all relevant data, and that a breakdown in interdepartmental communications contributed to the problem. Specifically, chemistry transients occurred about two weeks prior to the valve aisle entry which had bearing on the radiological conditions in the area; however, the chemistry information was not communicated to the radiation protection department. Chemistry samples showed that a crud burst occurred during Unit 1 startup as a result of the noble metals chemical treatment process and re-establishment of the hydrogen water injection program, which likely affected the radiological conditions in the valve aisle. Based on the chemistry information which the inspector presented to the radiation protection staff, the licensee recognized that the radiological conditions in the valve aisle were not adequately evaluated prior to area entry.

The licensee subsequently acknowledged the PI discrepancy and planned to report the event as a PI occurrence as part of its next quarterly report. The additional PI occurrence did not cause the licensee to cross a threshold for the occupational exposure control effectiveness indicator, which was in the green band.

There were no findings identified.

### .3 Reviews of Radiation Work Permits

#### a. Inspection Scope

The inspector reviewed a variety of radiation work permits (RWPs) and electronic dosimeter (ED) alarm setpoints for both dose rate and integrated dose, to ensure conformity with work area radiological conditions given the work activity. The inspector also verified that adequate work instructions were specified in the RWPs consistent with licensee procedures, in order to maintain worker exposures as-low-as-is-reasonably-achievable (ALARA).

#### b. Findings

There were no findings identified.

### .4 Reviews of Radiologically Significant Work

#### a. Inspection Scope

The inspector reviewed ALARA plans, attended pre-job briefings and/or observed activities relative to work in high radiation areas, locked high radiation areas, or in other radiologically significant work environments, to verify the adequacy of surveys, radiological controls, exchange of work area radiological information and worker performance. The following work activities were selectively reviewed:

- RWP # 000221, Revision 0, Profile, Process and Ship Irradiated Hardware in U-1/2 Spent Fuel Pools;
- RWP # 000224, Revision 0, Cleaning of Radwaste Tank; and

- RWP # 002501, Revision 0, L2F Drywell Under Vessel Nuclear Instrumentation Repairs.

b. Findings

There were no findings identified.

.5 Control of Non-Fuel Materials Stored in the Spent Fuel Pools

a. Inspection Scope

The inspector reviewed the licensee's programmatic controls and current practices for the control of highly activated or contaminated materials (non-fuel) stored within the spent fuel or other storage pools. Procedures were reviewed, radiation protection and reactor services staff were interviewed, and a walkdown of the refuel floor was conducted. The inspector verified that controls for underwater storage of non-fuel materials was adequate, and that the controls were consistent with the licensee's procedures and with Regulatory Guide 8.38, Information Notice 90-33, and applicable Health Physics Positions in NUREG/CR-5569.

b. Findings

There were no findings identified.

.6 Identification and Resolution of Problems

a. Inspection Scope

The inspector reviewed the licensee's self-assessments, field observation reports, problem identification form (PIFs) database and a variety of individual PIFs related to radiation worker performance, work practices and high radiation area access controls generated since the fourth quarter of 1999. The inspector evaluated the effectiveness of the self-assessment process to identify, characterize and prioritize individual problems and repetitive issues and trends, and to implement corrective actions to achieve lasting results.

The inspector also verified that a licensee identified programmatic deficiency with high radiation area access controls was effectively addressed.

b. Findings

There were no findings identified.

#### 4. OTHER ACTIVITIES

##### 4OA5 Temporary Instruction 2515/144 - Performance Indicator Data Collecting and Reporting Process Review

###### a. Inspection Scope

The inspector reviewed the licensee's performance indicator data collecting, data analysis and reporting process for the occupational radiation safety cornerstone, to determine whether the licensee was appropriately implementing NRC and industry guidance contained in NEI 99-02, Revision 0, "Regulatory Assessment Performance Indicator Guideline." The inspector verified that procedures for the licensee's performance indicator program were adequately developed and implemented, that data collection methods were sound, and that indicator definitions and reporting elements were consistent with industry guidance.

###### b. Findings

There were no findings identified.

##### 4OA6 Management Meetings

###### .1 Exit Meeting Summary

The inspector presented the inspection results to Mr. J. Meister and other members of licensee management and staff at the conclusion of the inspection on June 23, 2000. Additional telephone discussions were held with Mr. S. Taylor, the Radiation Protection Manager, and members of the radiation protection staff on June 28 and 30, 2000. The licensee acknowledged the findings presented.

The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified

PARTIAL LIST OF PERSONS CONTACTED

K. Bartes, Nuclear Oversight Manager  
J. Estes, Radiation Protection Engineering Supervisor  
D. Evans, Acting Chemistry Manager  
M. Hayworth, Nuclear Oversight  
R. Luczak, Group Chemist  
J. Meister, Station Manager  
M. Phalin, Radiation Protection Field Supervisor  
P. Quealy, Radiation Protection Technical Supervisor  
M. Rumick, Radiation Protection Program Coordinator  
S. Shields, Regulatory Assurance  
S. Taylor, Radiation Protection Manager  
E. Wolfe, Source Term Reduction/ALARA Coordinator

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

50-373/99022-03; NCV Failure to control the Unit 1 reactor water cleanup system valve  
50-374/99022-03 aisle as a locked high radiation area in accordance with T.S.  
6.1.1.4

LIST OF BASELINE INSPECTION PROCEDURES PERFORMED

The following inspectable-area procedures were used to perform inspections during the report period. Documented findings are contained in the body of the report.

<u>Inspection Procedure</u>		<u>Report Section</u>
<u>Number</u>	<u>Title</u>	
71121-01	Access Control to Radiologically Significant Areas	2OS1
2515/144	Performance Indicator Data Collecting and Reporting Process Review	4OA5

## LIST OF DOCUMENTS REVIEWED

The following documents were selected and reviewed by the inspector to accomplish the objectives and scope of the inspection and to support any findings.

### Procedures and Job Standards

RS-AA-122-115, Revision 1, Performance Indicator - Occupational Exposure Control Effectiveness  
RPJS - 6.11, Revision 0, Radiation Protection Technician Coverage Expectations While Supporting Draining of Refuel Floor Systems and Flush of Drain Lines  
RPJS - 6.12, Revision 0, Radwaste Zone Radiation Protection Technician Expectations for Job Coverage  
RP-AA-460, Revision 1, Controls for High and Very High Radiation Areas  
RPJS - 6.8, Revision 0, RP Coverage for Entry into High, Locked High and Very High Radiation Areas  
RPJS - 6.4, Revision 0, Providing Radiological Condition Briefings  
RPJS - 6.9, Revision 0, Verification Program Self-Check, Peer Check Program and Defense in Depth  
LRP-5010-1, Revision 10, Radiological Posting and Labeling Requirements  
RPJS - 7.1, Revision 0, Radiation Protection Posting Standard  
LFP-100-5, Revision 4, Material Storage in Fuel Pools and Cask Well

### Radiation Work Permits

RWP # 000167, Revision 3, Unit 1 and 2 Reactor Building Reactor Water Cleanup  
RWP # 000026, Revision 3, Unit 0/1/2 All Building Operating Activities  
RWP # 000228, Revision 0, Unit 2 RT System Noble Metals Modification

### Assessment Reports, Field Observation Reports and Related

Radiation Protection Department Self-Assessment Plan, June 2, 2000 and Self-Assessment Report, June 19, 2000, Access Control to Radiologically Significant Areas and ALARA Planning & Controls  
Monthly Self-Assessment Reports for the Radiation Protection Department for February 2000, April 2000 and May 2000, and Quarterly Report for the 1<sup>st</sup> Quarter 2000  
Field Observation Forms, Report No. 01-99-10-65, No. 01-99-10-124, No. 01-00-10-120, No.01-99-11-013, No. 01-99-11-079, No. 01-99-10-058, No. 01-99-11-123, No. 01-00-03-026, No. 01-00-03-034, No.01-00-03-039, No. 01-00-03-085, No. 01-00-03-093, No. 01-00-06-003, and No. 01-00-05-097

### Problem Identification Forms and Related

L2000-03221, Radiation Protection Self-Assessment Identified Issues  
L2000-03355, Radiation Protection Self-Assessment Results  
L2000-03438, U-1 Reactor Coolant CRUD Burst  
L1999-05963, Elevated Dose Rates in U-1 RWCU (RT) Valve Aisle  
L2000-00099, Workers Receiving ED Alarms Without Informing Radiation Protection  
L2000-00098, ED Alarms Greater than 100 mR/hr on Non-High Radiation Area RWPs

L2000-00095, Failure to Notify RP Prior to Entry into Unsurveyed Area

Miscellaneous Documents

L1R08 Outage Overview Report

Radiation Protection Shift Supervisor Logs for Various Dates in 2000