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## La Salle 2 – Quarterly Plant Inspection Findings

### 3Q/2017 – Plant Inspection Findings

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#### Initiating Events

**Significance:** G Jun 30, 2017

Identified By: Self-Revealing

Item Type: FIN Finding

#### **Failure to Implement a Preventive Maintenance Strategy for Main Generator Auxiliaries**

A self revealed, Green Finding was identified for the failure to implement a preventive maintenance strategy for main generator auxiliaries in accordance with MA-AA-716-210. Specifically, a performance centered maintenance template was issued in 2004 that required 10 year inspections for stator cooling heat exchanger isolation valves, but the maintenance strategy was never implemented. As a result, 2GC-Y08 had a stem to disc separation that ultimately led to a manual reactor scram on January 23, 2017. The licensee shifted to the standby stator cooling heat exchanger and restarted the reactor on January 25, 2017. The performance deficiency was documented in the licensee's corrective action program.

The performance deficiency was more than minor because it was associated with the Initiating Events Cornerstone attribute of equipment performance and adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the performance deficiency resulted in a reactor scram. In accordance with IMC 0609.04, "Initial Characterization of Findings," and Exhibit 1 of IMC 0609, Appendix A, "The Significance Determination Process for Findings At Power," issued June 19, 2012, the inspectors determined that this finding was of very low safety significance because although the performance deficiency caused a reactor scram, it did not result in the loss of mitigation equipment relied upon to transition the plant from the onset of the scram to a stable shutdown condition. Although the performance deficiency occurred in 2005, the licensee performed a vulnerability review of the stator cooling system in 2015 that did not identify 2GC-Y08 as critical. Therefore, the inspectors determined that the finding represented present performance. The inspectors determined this finding affected the cross cutting area of human performance in the aspect of work management where the organization implements a process of planning, controlling, and executing work activities such that nuclear safety is the overriding priority. Specifically, the licensee failed to plan

and execute preventive maintenance for valve 2GC-Y08.

Inspection Report# : 2017002 (*pdf*)

**Significance:**  Mar 31, 2017

Identified By: NRC

Item Type: NCV Non-Cited Violation

### **Inadequate Controls for ASME Code VT-3 Internal Examination of Pumps and Valves**

The inspectors identified a finding of very low safety significance with an associated non-cited violation of Title 10 of the Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because the licensee failed to establish a procedure that ensured the American Society of Mechanical Engineers (ASME) Code VT-3 examination of the internal surface of valves or pumps occurred in the as found condition (e.g., prior to repairs). Consequently, the licensee repaired internal damage to the 2B33-F067B valve prior to the Code VT-3 examination which potentially resulted in an ineffective VT-3 examination. The licensee entered this issue into their corrective action program as Action Request 3972620, initiated actions to complete another VT-3 examination of valve 2B33-F067A or valve 2B33-F067B during the current outage and was evaluating additional controls for scheduling VT-3 internal examinations of pumps and valves.

The performance deficiency was determined to be more than minor because it affected the Initiating Events cornerstone attribute of equipment performance and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, if left uncorrected, this finding would lead to a more significant safety concern because it increased the likelihood of a an operational challenge to the plant caused by a recirculation system line break initiated from undetected service induced defects left in service inside pumps or valves as a result of ineffective VT-3 examinations. The finding was screened in accordance with Inspection Manual Chapter 0609, Appendix A, and the inspectors answered "No" to the applicable Phase 1 Initiating Events Screening question because the finding did not result in a reactor trip and/or loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. Therefore, this finding was determined to have very low safety significance (Green). The finding had a cross cutting aspect of Work Management in the Human Performance cross cutting area, because licensee managers failed to establish an adequate process of planning, controlling, and executing work activities such that nuclear safety is the overriding priority as evidenced by the lack of appropriately controls for scheduling the VT-3 internal examination of the 2B33-F067B valve (Inspection Manual Chapter (IMC) 310, Item H.5).

Inspection Report# : 2017001 (*pdf*)

### **Mitigating Systems**

**Significance:**  Jul 14, 2017

Identified By: NRC

Item Type: NCV Non-Cited Violation

### **Failure to Correctly Evaluate/Justify Post-Accident Operability Qualification for the Reliance Motor 1(2) VY03C RHR Pumps Room Cooling Fan (Section 1R21.3.b(1))**

Green. The inspectors identified a finding of very-low safety significance and an associated NCV of Title 10 of the Code of Federal Regulations (10 CFR) Part 50.49, Paragraph (f)(4), for the licensee's failure to provide adequate analysis in combination with partial type test data to qualify an Environmental Qualification (EQ) component. Specifically, EQ-LS068 failed to provide adequate analysis to justify the Post-Accident Operability Qualification for the Reliance Electric motor utilized for 1(2)VY03C. The EQ Binder incorrectly relied on test values that was strictly performed for thermal aging (for normal plant conditions) to justify a Post-Accident Qualification. The licensee captured the inspectors' concern into their Corrective Action Program (CAP) as Action Request (AR) 04030532.

The performance deficiency was determined to be more-than-minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of mitigating systems to respond to initiating events to prevent undesirable consequences. The finding screened as of very-low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, as an immediate corrective action, the licensee performed a preliminary assessments and concluded that the motors could be EQ qualified for the environmental conditions for which they could be exposed. The finding was associated with a cross cutting aspect in the area of Human Performance, Design Margin. [H.6] (Section 1R21.3.b(1))

Inspection Report# : 2017008 (*pdf*)

**Significance:**  Jul 14, 2017

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Failure to have Adequate Justification for Extending the life of Lubricant used in EQ Motor Bearings (Section 1R21.3.b(2))**

Green. The inspectors identified a finding of very-low safety significance and an associated NCV of 10 CFR Part 50.49, Paragraph (j), "Environmental Qualification of Electrical Equipment Important to Safety for Nuclear Power Plants," for the licensee's failure to have adequate justification for extending the service-life for grease used in the bearing for EQ motors installed in harsh environment. Specifically, the licensee extended the bearing grease qualified service life for several EQ motors installed in Zone H4A, H6 and H5A from 31.5, 20.5 and 19.5 years respectively to 60 years based on incorrect assumptions. The justification for 60 years extension incorrectly assumed that the calculated service-life was based on continuous operation of the motor. The licensee captured the inspectors' concern into their CAP as AR 04030538.

The performance deficiency was determined to be more-than-minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of mitigating systems to respond to initiating events to prevent undesirable consequences. The finding screened as of very-low safety significance (Green) because it did not result in the loss of operability or functionality of mitigating systems. Specifically, as an immediate corrective action, the licensee performed a preliminary evaluation that concluded that the grease remained qualified based on test data which showed that the grease consistency remained within acceptable range during the thermal age test. The finding did not have a cross-cutting aspect associated with it because it was not representative of current performance. (Section 1R21.3.b(2))

Inspection Report# : 2017008 (*pdf*)

**Significance:**  Dec 31, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Failure to Perform Required Monthly Fire Extinguisher Inspections per National Fire Protection Association Code**

The inspectors identified a finding of very low safety significance with an associated NCV of the LaSalle County Station Unit 1 and Unit 2 operating licenses, NFP-11, Section 2.C.(25), "Fire Protection Program," and NFP-18, Section 2.C.(15), "Fire Protection Program," respectively, for the licensee's failure to meet the inspection requirements of National Fire Protection Association (NFPA) 10-1975 for portable fire extinguishers. Specifically, from October 10, 2011, to January 9, 2017, the licensee failed to perform inspections on portable fire extinguishers in high radiation areas on the required monthly frequency, including some fire extinguishers that were in place in case of a fire in safety-

related areas, such as outside emergency core cooling system pump rooms. The licensee entered this issue into the Corrective Actions Program as Action Request 02739987. Licensee's corrective actions include completion of an evaluation which provided a technical justification for a deviation from the monthly inspection requirements of NFPA-10.

The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of protection against external factors, including fire, and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, had a fire occurred in one of the affected fire zones containing safety-related mitigation equipment (e.g., RHR pump room) and a licensee responder attempted to use an extinguisher that may not be functional due to an unknown degraded condition allowed to exist because monthly checks were not performed, the fire could progress further and render the mitigating system inoperable. The finding was screened as very low safety significance (Green) because the fire finding was associated with portable fire extinguishers not used for hot work fire watches. The inspectors determined that this finding affected the cross-cutting area of human performance in the aspect of documentation where the organization creates and maintains complete, accurate and up to date documentation. Specifically, the licensee failed to ensure that procedures governing the monthly inspection of portable fire extinguishers contained accurate information regarding the use of a deviation from NFPA-10.

Inspection Report# : 2016004 (*pdf*)

**Significance:**  Dec 31, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Failure to Provide Sufficient Guidance for the Successful Troubleshooting of Safety-Related Equipment**

The inspectors identified a finding of very low safety significance with an associated NCV of Title 10 of the Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to provide procedural guidance of a type appropriate to the circumstances. Specifically, licensee procedure MA-AA-716-004, "Conduct of Troubleshooting," Revision 13, did not prescribe appropriate quantitative or qualitative acceptance criteria for determining whether a failed component existed in the 1VY03C control circuit (a safety-related component) using the simple troubleshooting methods outlined by the procedure. The licensee entered this issue into the CAP as ARs 02680921 and 02722425. Corrective actions included revision of the MA-AA-716-004 procedure to include instructions that drove more thorough troubleshooting activities, as recommended by an internal fleet assessment documented in AR 02516457.

The performance deficiency was more than minor, and thus a finding because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the licensee concluded troubleshooting on fan 1VY03C without correcting the degraded condition which adversely affected the reliability of the fan to automatically start in response to an initiating event. The finding screened as of very low safety significance (Green) because the finding was not a deficiency affecting the design or qualification of a mitigating system, structure and component (SSC), did not represent a loss of system or function, did not represent an actual loss of function of a train for greater than the TS allowed outage time and did not represent a loss of function of a non-TS train of equipment. The inspectors determined this finding affected the cross-cutting area of problem identification and resolution in the aspect of operating experience where the organization systematically and effectively collects, evaluates, and implements relevant internal and external operating experience in a timely manner. Specifically, the licensee failed to ensure evaluation and implementation of internal operating experience in a timely manner after a fleet wide issue concerning less than adequate troubleshooting was entered in the CAP.

Inspection Report# : 2016004 (*pdf*)

**Significance:** G Dec 31, 2016

Identified By: NRC

Item Type: FIN Finding

### **Block Wall Evaluations Not Consistent with As-Built Condition**

The inspectors identified a finding of very-low safety significance when licensee personnel failed to ensure that the design inputs used in block wall evaluations for determination of their seismic capacities were consistent with the conditions as built or as specified in the design documents. Specifically, the material properties and wall configurations used in the analyses were not consistent with the as-built conditions. The evaluations were a part of the licensee's response to the NRC Request for Information Pursuant to 10 CFR, Part 50.54(f) regarding Recommendation 2.1: Seismic, of the Near Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident. The performance deficiency did not impact the operability or functionality of the walls and was captured in the licensee's CAP under ARs 2712569, 2711669, 2711877, 2710850, 2711337 and 2711875, with actions to revise the affected calculations.

The performance deficiency was more than minor, and thus a finding because it was associated with the Mitigating Systems cornerstone attribute of protection against external factors and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee's failure to determine and use correct design inputs adversely impacted the evaluations of block walls required for protection of the components attached to or located in proximity of the walls, and needed to support implementation of the diverse and flexible coping strategies. The finding screened as having very-low safety significance (Green) because the finding did not result in the loss of operability or functionality of any affected structures, systems, and components. The inspectors determined this finding affected the cross-cutting area of human performance in the aspect of field presence where senior managers ensure supervisory and management oversight of work activities, including contractors and supplemental personnel. Specifically, the licensee failed to provide supervisory and management oversight for the activities of the contractor performing the block wall evaluations.

Inspection Report# : 2016004 (*pdf*)

### **Barrier Integrity**

### **Emergency Preparedness**

### **Occupational Radiation Safety**

### **Public Radiation Safety**

### **Security**

The security cornerstone is an important component of the ROP, which includes various security inspection activities the NRC uses to verify licensee compliance with Commission regulations and thus ensure public health and safety. The Commission determined in the staff requirements memorandum (SRM) for SECY-04-0191, "Withholding Sensitive Unclassified Information Concerning Nuclear Power Reactors from Public Disclosure," dated November 9, 2004, that specific information related to findings and performance indicators associated with the security cornerstone will not be publicly available to ensure that security-related information is not provided to a possible adversary. Security inspection report cover letters will be available on the NRC Web site; however, security-related information on the details of inspection finding(s) will not be displayed.

### **Miscellaneous**

Current data as of : November 29, 2017

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