March 14, 2013

Mr. Patrick Daly, Senior Vice-President and General Manager Zion*Solutions*, LLC 101 Shiloh Boulevard Zion, IL 60099

### SUBJECT: NRC INSPECTION REPORT 05000295/2013007(DNMS); 05000304/2013007(DNMS) - ZION NUCLEAR POWER STATION

Dear Mr. Daly:

On February 8, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed a Problem Identification and Resolution (PI&R) Program and Fire Protection Program inspection at the permanently shutdown Zion Nuclear Power Station in Zion, Illinois. The enclosed inspection report documents the inspection results, which were discussed with you and other members of your staff on February 8, 2013.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, performed plant walk-downs and interviewed personnel. Additionally, on February 1, 2013, one of the NRC inspection team members met onsite with representatives from the City of Zion Fire and Rescue Department to review response actions and equipment capability.

Based on the results of this inspection, the inspectors identified one violation of regulatory requirements that was of more than minor safety significance. However, because this violation was of very low safety significance, and because the issue was entered into your corrective action program (CAP), the NRC is treating the issue as a non-cited violation (NCV) in accordance with Section 2.3.2 of the NRC Enforcement Policy. In addition, the inspection team identified several issues that were either minor in nature and/or represented potential weaknesses in your CAP or fire protection program, warranting your attention.

No response is required for the NCV. However, if you contest the subject or severity of the NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

P. Daly

In accordance with Title 10 of the Code of Federal Regulations (CFR) Section 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC's Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC website at <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made publicly available without redaction.

We will gladly discuss any questions you may have regarding this inspection.

Sincerely,

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Christine Lipa, Chief Materials Control, ISFSI, and Decommissioning Branch Division of Nuclear Materials Safety

Docket Nos. 050-00295; 050-00304 License Nos. DPR-39; DPR-48

Enclosure:

Inspection Report No. 05000295/2013007(DNMS); 05000304/2013007(DNMS)

cc w/encl: Zion*Solutions* Service List Suzi Schmidt, Illinois General Assembly JoAnn D. Osmond, Illinois General Assembly Barry A. Burton, Lake County Administrator Mark C. Curran, Jr., Lake County Sheriff Laurie Cvengros, Village Clerk, Village of Beach Park, Illinois Willard R. Helander, Lake County Clerk Jana Lee, Village Clerk, Village of Winthrop Harbor, Illinois Judy L. Mackey, City Clerk, City of Zion, Illinois Irene T. Pierce, Lake County, Illinois

# U.S. NUCLEAR REGULATORY COMMISSION

## **REGION III**

Docket Nos.:	050-00295; 050-00304
License Nos.:	DPR-39; DPR-48
Report Nos.:	05000295/2013007(DNMS) 05000304/2013007(DNMS)
Licensee:	ZionSolutions, LLC
Facility:	Zion Nuclear Power Station (permanently shut-down)
Location:	101 Shiloh Boulevard Zion, IL 60099
Dates:	January 22-25, February 1 & February 4-8, 2013 (onsite); in- office review January 28-31, 2013
NRC Inspectors:	J. Neurauter, Reactor Inspector (Team Lead) R. Langstaff, Reactor Inspector W. Slawinski, Health Physicist L. Rodriguez, Reactor Engineer
Approved by:	Christine A. Lipa, Chief Materials Control, ISFSI, and Decommissioning Branch Division of Nuclear Materials Safety

## EXECUTIVE SUMMARY

### Zion Nuclear Power Station, Units 1 and 2 NRC Inspection Report 05000295/2013-007(DNMS); 05000304/2013-007(DNMS)

The Zion Nuclear Power Station is a permanently shut-down and defueled power reactor facility that was maintained in a SAFSTOR condition with spent fuel in wet storage from 1998 through 2010. In 2011, active decommissioning commenced and continued throughout the inspection period. This team inspection was performed by four NRC regional inspectors to assess the Zion*Solutions* problem identification and resolution (PI&R) program, focusing on the overall effectiveness of the corrective action program (CAP). The inspectors also reviewed the licensee's fire protection program including control of hot work and combustibles. In addition, the inspectors met with Zion Fire Department representatives to review offsite response capabilities.

### Summary - Problem Identification and Resolution

On the basis of the samples selected for review, the team concluded that implementation of the CAP at Zion Nuclear Power Station was generally effective. The licensee had a low threshold for identifying problems and entering them into the CAP. Items entered into the CAP were screened and prioritized in a timely manner using established criteria; were properly evaluated commensurate with their safety significance; and corrective actions were implemented generally in a timely manner, commensurate with the safety significance. An Operating Experience (OE) program was developed, but its effectiveness was not assessed as part of the NRC inspection effort because it was in an early implementation stage. Audits and self-assessments were performed at appropriate frequencies and at an appropriate level to identify issues. The assessments reviewed were thorough and effective in identifying site performance deficiencies, programmatic concerns, and improvement opportunities. On the basis of interviews conducted during the inspection, workers at the site expressed freedom to enter safety concerns into the CAP or otherwise raise issues verbally through informal channels. The inspectors did not identify any impediments to the establishment of a safety conscious work environment (SCWE) at the Zion Nuclear Power Station.

### **Effectiveness of Problem Identification**

 Issues were being identified at a reasonably low threshold throughout all levels of the licensee's onsite organization and generally were entered into the CAP system. However, non-supervisory craft workers preferred to verbally raise issues through their supervisor (foreman) and informally address issues through field adjustment rather than through use of the CAP process (Section 1.1).

#### Effectiveness of Prioritization and Evaluation of Issues

 Issues were effectively screened and prioritized commensurate with their safety significance in most instances. The scope and depth of CAP evaluations were adequate in that the apparent cause (AC), common cause and contributing cause were determined as appropriate. Evaluations generally determined the significance of issues, assessed regulatory compliance and reporting, and assigned effective remedial actions. However, the inspectors determined that condition reports (CR) and their associated evaluations focused on individual human performance deficiencies and failed to look more broadly at potential process or procedure weaknesses such as work planning, work control, resources and other cross-cutting components (Section 1.2).

### **Effectiveness of Corrective Actions**

• The licensee generally implemented effective corrective actions in a timely manner to address identified deficiencies, commensurate with their safety significance. However, weaknesses in the CAP related to tracking and trending of issues limited the licensee's capability to prevent recurrence of previously identified deficiencies (Section 1.3).

### Assessment of the Use of Operating Experience

• External OE was identified and disseminated across plant departments to determine applicability to the Zion site. However, the licensee identified weaknesses with its timeliness of OE screening reviews. As a result, the licensee recognized that untimely OE reviews adversely affected integration of OE into the performance of daily activities and therefore impacted the ability to prevent future occurrences of previous industry events (Section 1.4).

#### Assessment of Self-Assessments and Audits

• Self-assessments, audits, and other licensee assessments were typically effective at identifying issues and improvement opportunities. Corrective actions associated with identified issues were entered into the CAP at a low threshold and actions were assigned commensurate with their safety significance (Section 1.5).

### Assessment of Safety Conscious Work Environment

 No issues were identified by the inspectors that would impede the establishment and existence of a SCWE at the Zion site. The Zion staff expressed a willingness to challenge actions or decisions that they believed were unsafe. All employees interviewed noted that any safety issue could be freely communicated to supervision and safety significant issues were being corrected. Interviews did not reveal any instances that workers were reluctant to raise safety issues. Additionally, individuals were aware of the different processes available for raising safety concerns, including the station's CAP, raising concerns to supervisors and managers, and the station's Employees Concerns Program (ECP). Based on these limited interviews, the inspectors concluded that there were no significant concerns with the site SCWE (Section 1.6).

#### Summary - Fire Protection Program

On the basis of the samples selected for review, the team concluded that implementation of the Fire Protection Program at Zion Nuclear Power Station was generally effective. The licensee generally maintained their fire protection plan, fire hazards analysis, and fire protection procedures consistent with their licensing basis and Title 10 of the Code of Federal Regulations (CFR) 50.48(f).

### Assessment of Fire Protection Program

• Observed field conditions were generally conducive to safe decommissioning work and were not adverse to plant or personnel safety. However, a non-cited violation of very low safety significance was identified for failure to implement procedure ZAP 900-03 for control of transient combustibles. In addition, the inspectors identified the following weaknesses in the Fire Protection Program where the licensee failed to: fully update the fire protection report to reflect planned changes to pre-fire plans, ensure that fire retardant clothing was worn near hot work activities, and ensure that fire extinguishers used to support hot work activities were fully charged. The licensee implemented corrective actions or had corrective actions in-place to ensure compliance and prevent recurrence (Section 2.1).

### **Report Details**

#### 1.0 Problem Identification and Resolution (IP 40801 and 71152)

#### Assessment of CAP Effectiveness

#### 1.1 Effectiveness of Problem Identification

#### a. Inspection Scope

The inspectors individually interviewed approximately 40 persons involved in licensed activities at various levels of the site organization to ascertain their views on the problem identification process associated with the Zion Station decommissioning project. The inspectors reviewed the licensee's CAP governing document and implementing procedures and also attended CAP meetings to assess both the development and the implementation of the program. Specifically, the inspectors determined if licensee and contractor personnel identified issues at the proper threshold, entered issues into the CAP in a timely manner, and whether the licensee assigned timely and appropriate prioritization for issue resolution. Additionally, the inspectors reviewed CRs that encompassed a variety of activities and departments to determine the extent that problems were identified and entered into the CAP.

#### b. Observations and Findings

The inspectors determined that issues were being identified at a low threshold and generally were entered into the CAP system. The inspectors determined that workers were familiar with the CAP and felt comfortable raising concerns. As a result, over 1300 CRs were generated in 2012, which were distributed across the various site activities. A computerized database was used in most instances for creating individual CAP documents, although handwritten inputs were accepted as an alternate means of CR generation. The inspectors noted that issues identified by external organizations such as the U.S. Nuclear Regulatory Commission (NRC) or contractors were likewise entered into the CAP for resolution. The inspectors noted that the licensee also used the CAP to document instances where previous corrective actions were ineffective or were inappropriately closed.

Through interviews, the inspectors determined that non-supervisory craft workers preferred to verbally raise issues through their foreman and not personally generate a CR for a variety of reasons. In particular, some working level individuals viewed the CR process as punitive in that it focused on reprimanding individuals irrespective of the circumstance. Others indicated that corrective actions were not always timely if a CR was generated, so field adjustments were made instead of generating a CR to allow work to continue and meet schedule demands. Notwithstanding these views, the inspectors determined that craft foremen routinely entered issues into the CAP system that were verbally raised by working level staff and took actions to address problems before safety significant work continued. While some issues were not documented in the CAP system and were addressed informally through field adjustments; overall, the inspectors concluded that, in-general, issues were being identified and documented in the CAP as intended.

No findings of significance were identified.

#### c. Conclusions

Issues were being identified at a reasonably low threshold throughout all levels of the licensee's onsite organization and generally were entered into the CAP system. However, non-supervisory craft workers preferred to verbally raise issues through their supervisor (foreman) and informally address issues through field adjustment rather than through use of the CAP process.

#### 1.2 Effectiveness of Prioritization and Evaluation of Issues

#### a. Inspection Scope

The inspectors reviewed the licensee's methods and practices to screen issues, assess their actual or potential significance and to determine if an evaluation was warranted. The inspectors assessed the licensee's characterization of issues to determine whether the appropriate investigation method was used consistent with the licensee's procedures based on risk significance. The inspectors selectively reviewed CAP evaluation products completed in 2012, which consisted of apparent cause evaluations (ACEs), quick human performance investigations (QHPI), common cause evaluations (CCE) and issue reviews (IRs). More than twenty CAP product evaluations were reviewed by the inspectors. The reviews focused on the scope and depth of the licensee's evaluations to determine whether the fundamental cause of an issue was identified to allow corrective actions to be properly targeted.

#### b. Observations and Findings

The inspectors concluded that the licensee was generally effective at prioritizing issues commensurate with their safety significance. The inspectors found that the majority of issues were not safety significant and were either closed to actions taken or characterized at a level appropriate for an IR evaluation. In most instances, issues were appropriately screened during daily Management Review Committee (MRC) meetings. Weekly MRC meetings were collegial, generally thorough and maintained a high standard for evaluation quality. Members of the MRC discussed issues in sufficient detail and challenged conclusions and recommendations as appropriate.

Overall, the inspectors found that the scope and depth of CAP evaluations were adequate in that the AC, common cause and contributing cause were determined as appropriate. The licensee's evaluations determined the significance of issues, assessed regulatory compliance and reporting, and assigned effective remedial actions for most issues. However, the inspectors determined that CRs and their associated evaluations focused on individual human performance deficiencies and failed to look more broadly at potential process or procedure weaknesses such as work planning, work control, resources and other cross-cutting components. As a result, the licensee may have overlooked more fundamental deficiencies that contributed to the issue or caused the problem.

No findings of significance were identified.

### c. Conclusions

The licensee effectively screened and prioritized issues commensurate with their safety significance in most instances. The scope and depth of CAP evaluations were adequate in that the AC, common cause and contributing cause were determined as appropriate. Evaluations generally determined the significance of issues, assessed regulatory compliance and reporting, and assigned effective remedial actions. However, the inspectors determined that CRs and their associated evaluations focused on individual human performance deficiencies and failed to look more broadly at potential process or procedure weaknesses such as work planning, work control, resources and other cross-cutting components.

### 1.3 Effectiveness of Corrective Actions

### a. Inspection Scope

The inspectors discussed the CAP with the respective managers and reviewed the Zion*Solutions* implementing procedures for the CAP to gain a general understanding of the program at the site and to review its effectiveness. As part of the dialogues, the licensee discussed the current capabilities of the CAP software package in use at the site. The inspectors reviewed over 40 open and closed condition reports and associated documentation including corrective actions, IRs, ACEs, CCEs, and a QHPI to determine the site's compliance with the CAP. The inspectors discussed some of these CAP products with members of the licensee's staff to assess the adequacy of the products. The inspectors also attended the daily and weekly MRC meetings to determine the effectiveness of the CAP.

### b. Observations and Findings

The inspectors concluded that the licensee was generally effective in implementing corrective actions in a timely manner to address identified deficiencies, commensurate with their safety significance. For individual issues, the licensee generally implemented adequate corrective actions to resolve the immediate concerns.

Through a review of CRs, the inspectors noted that due dates for corrective actions were sometimes extended risking reoccurrence of the issue before remedial actions could be completed because of the CAP's liberal extension policy for the completion of corrective actions. This was previously identified by the licensee in a PI&R self-assessment dated January 16, 2013 and was entered into their CAP as CR-2013-000045. Furthermore, the inspectors noted that the licensee's CAP software package was limited in its capability to track and trend issues to the level desired by the licensee. Therefore, the CAP was limited in its capability to collectively look at issues to identify higher level process and/or programmatic deficiencies. The licensee mostly relied on the institutional knowledge of its personnel to identify negative trends that are entered into the CAP. This deficiency was identified by the licensee in a CAP self-assessment dated May 24, 2012 and the PI&R self-assessment dated January 16, 2013. Several CRs were entered into the licensee's CAP to address this deficiency, such as CR-2012-000494, CR-2013-000034, and CR-2013-000039.

No findings of significance were identified.

#### c. Conclusions

The licensee generally implemented effective corrective actions in a timely manner to address identified deficiencies, commensurate with their safety significance. However, weaknesses in the CAP related to tracking and trending of issues limited the licensee's capability to prevent recurrence of previously identified deficiencies.

### 1.4 Assessment of the Use of Operating Experience

### a. Inspection Scope

The inspectors reviewed the licensee's implementation of the facility's OE program. Specifically, the inspectors interviewed the OE coordinator and reviewed implementing OE program procedures, a completed evaluation of an OE issue, and the current Focused Area Self Assessment (FASA) and corrective actions related to the OE program. The inspectors' review was to determine whether the licensee was effectively integrating OE experience into the performance of daily activities, whether evaluations of issues were proper and conducted by qualified personnel, whether the licensee's program was sufficient to prevent future occurrences of previous industry events, and whether the licensee effectively used the information in developing departmental assessments and facility audits. The inspectors also assessed if corrective actions, as a result of OE experience, were identified and effectively and timely implemented.

### b. Observations and Findings

Based on the results of the inspection, the inspectors concluded that in general, external OE was effectively identified by the station through coordination with the Exelon OE program. The inspectors observed the OE coordinator's database for control of OE at the station. Industry OE was disseminated across plant departments to determine applicability to the Zion site in accordance with Attachment 1, "OPEX/LL Screening Review Checklist," of ZAP-700-17, "Permanently Defueled Operating Experience/Lessons Learned Program."

The inspectors reviewed in detail the licensee's screening review of external OE related to NRC Information Notice 2012-17, "Inappropriate Use of Certified Material Stress Report Yield Stress and Age-Hardened Concrete Strength in Design Calculations," dated September 6, 2012. The inspectors verified the licensee appropriately concluded this external OE to be applicable to the Zion site.

The licensee's FASA report related to PI&R, dated January 16, 2013, identified issues related to completion and timeliness of OE screening reviews. Corrective action for CR-2013-000061 stipulated that OE determined to be applicable to the Zion site should be included in the CAP as a Significance Level 4 CR. Corrective action for CR-2013-000063 stipulated a revision to ZAP-0700-17 to establish a due date for review checklists and a priority level for relevant OE items. The inspectors noted that these corrective actions had not been completed at the time of the inspection. As a result, the inspectors determined that it was premature to draw conclusion on whether the licensee was effectively integrating OE into the performance of daily activities, whether the licensee's program was sufficient to prevent future occurrences of previous industry

events, and whether the licensee effectively used the information in developing departmental assessments and facility audits.

No findings of significance were identified.

#### c. Conclusions

External OE was identified and disseminated across plant departments to determine applicability to the Zion site. However, the licensee identified weaknesses related to its timeliness of OE screening reviews. As a result, the licensee recognized that untimely OE reviews adversely affected integration of OE into the performance of daily activities and therefore impacted the ability to prevent future occurrences of previous industry events.

### 1.5 Assessment of Self-Assessments and Audits

### a. Inspection Scope

The inspectors reviewed the licensee's FASA and quality assurance audit reports completed in 2012, to determine whether these evaluative tools were effectively managed, were of sufficient rigor to assess the subject areas and to determine whether identified issues were captured in the CAP system and being addressed.

### b. Observations and Findings

Self-assessments, audits, and other licensee assessments were typically effective at identifying issues and improvement opportunities. The inspectors concluded that audits and self-assessments were generally thorough, involved subject matter experts or otherwise were completed by personnel knowledgeable in the subject area. Corrective actions associated with the identified issues were entered into the CAP at a low threshold and actions were assigned commensurate with their safety significance.

For example, a self-assessment of the PI&R program completed late in 2012 was effective in identifying a number of issues needing management attention.

No findings of significance were identified

c. <u>Conclusions</u>

Self-assessments, audits, and other licensee assessments were typically effective at identifying issues and improvement opportunities. Corrective actions associated with the identified issues were entered into the CAP system at a low threshold and actions were assigned commensurate with their safety significance.

#### 1.6 Assessment of Safety Conscious Work Environment

#### a. Inspection Scope

The inspectors reviewed the licensee's safety culture and SCWE surveys to assess if there were any organizational issues or trends that could impact the licensee's safety

performance. The inspectors reviewed the licensee's associated CR, ACE, and proposed corrective actions for identified survey issues of concern related to SCWE.

The inspectors assessed the licensee's establishment of a SCWE through the reviews of the employee concern program implementing procedures, discussions with the ECP manager, and interviews with managers and supervisors from various departments. In addition, the inspectors attended licensee plan of the day meetings, and daily and weekly MRC meetings related to CR review and disposition. The inspectors also attended new employee training sessions related to the CAP, ECP, and SCWE.

To further assess the Zion site's current safety culture and SCWE, interviews with personnel were conducted with a representative sample of station employees during the inspection.

#### b. Observations and Findings

On June 4, 2012, the licensee initiated CR-2012-000518 to document that the licensee's SCWE survey performed in April 2012 indicated negative results. Specifically, the survey indicated the potential for an adverse trend with employees being reluctant to identify safety concerns and a concern with management's ability to effectively address safety issues. The licensee's ACE for CR-2012-000518 identified ACs for the four areas of concern identified in the licensee's April 2012 SCWE survey:

- Concern 1: The possible existence of harassment, intimidation, retaliation, and/or discrimination of persons identifying problems
- AC: Senior management has not consistently or sufficiently demanded nor reinforced expectations that all levels of management establish and sustain a SCWE that eliminates actual or perceived harassment, intimidation, retaliation, and/or discrimination.
- Concern 2: A lack of knowledge, willingness to use, and uncertainty about the effectiveness of the CAP
- AC Senior management has not provided sufficient CAP training (initial and refresher) to workers and their superiors nor has senior management enforced appropriate performance expectations for management and supervision's implementation of and improvements to the CAP.
- Concern 3: The employees perceived lack of management encouragement and support of workers identifying problems using CAP
- AC Senior management has not provided sufficient CAP training (initial and refresher) to workers and their superiors nor has senior management enforced appropriate performance expectations for management and supervision's implementation of and improvements to the CAP.

- Concern 4: A lack of familiarity with the ECP and indications of a reluctance to use ECP
- AC Appropriate actions have not been taken in response to indications that management expectations and regulatory obligations for management and supervisory implementation of ECP and the associated SCWE and safety culture principles were not being met.

To address the ACs, the licensee developed an action plan to improve the site's SCWE which included specific corrective actions with due dates for each area of concern.

The inspectors reviewed the effectiveness of selected licensee corrective actions to improve the site's safety culture (attributes included the safety-over production principle, procedural adherence, and conservative decision making) and SCWE (employee's were willing to identify safety concerns). The inspectors noted that:

- Senior site management had demonstrated an expectation for a strong safety culture and SCWE. Management understood the importance of the CAP and ECP and had taken steps to increase the effectiveness of these programs such as providing training to managers and supervisors for expected behaviors relative to the CAP and SCWE.
- The licensee provided new employee training in the areas of the CAP, ECP, and SCWE. The importance of and expectation for employees to identify safety concerns were a part of the CAP training module. In addition, the licensee's training for the ECP and SCWE provided management expectations for the ability of employees to raise safety concerns without fear of retaliation. In addition, the ECP and SCWE training module provided alternative methods (supervisor, ECP, anonymous, or NRC) to address safety concerns in addition to personally writing a CR.
- The licensee reinforced the importance of safety during plan of the day meetings. The licensee encouraged staff participation and a questioning attitude during daily and weekly MRC meetings related to CR review and disposition.
- Conditions were generally conducive to the establishment and existence of a SCWE at the Zion site. Licensee staff was aware of and generally familiar with the CAP and other station processes, including the ECP, through which concerns could be raised. The staff also indicated that management had been supportive of the CAP by providing time and resources for employees to generate their own CRs.
- The staff expressed a willingness to challenge actions or decisions that they believed were unsafe. All employees interviewed noted that any safety issue could be freely communicated to supervisors and safety significant issues were being corrected. Some employees indicated a number of low level items were not being corrected in a timely manner. The inspectors determined that the timeliness of the planned corrective actions for the examples given were commensurate with their safety significance.

• Plant staff was aware of the importance of having a strong SCWE and expressed a willingness to raise safety issues. All employees interviewed noted that any safety issue could be freely communicated to supervision, and safety significant issues were being corrected. Additionally, individuals were aware of the different processes available for raising safety concerns, including the station's CAP, raising concerns to supervisors and managers, and the station's ECP. Based on these limited interviews, the inspectors concluded that there was no evidence of an unacceptable SCWE.

No findings of significance were identified.

c. Conclusions

No issues were identified by the inspectors that would impede the establishment and existence of an SCWE at the Zion site. The Zion staff expressed a willingness to challenge actions or decisions that they believed were unsafe. All employees interviewed noted that any safety issue could be freely communicated to supervision and safety significant issues were being corrected. Interviews did not reveal that workers were reluctant to raise safety issues. Additionally, individuals were aware of the different processes available for raising safety concerns, including the station's CAP, raising concerns to supervisors and managers, and the station's ECP. Based on these limited interviews, the inspectors concluded that there were no significant concerns with the site SCWE.

### 2.0 Fire Protection Program (IP 71801)

#### 2.1 Assessment of Fire Protection Program Effectiveness

a. Inspection Scope:

The inspectors reviewed the licensee's fire protection plan, fire hazards analysis, and fire protection procedures to ascertain whether the fire plans and procedures reflected the current status of the decommissioning facility and license conditions. The inspectors conducted plant tours to observe field conditions and assess whether field conditions contributed to safe decommissioning and did not represent conditions adverse to plant or personnel safety.

#### b. Observations and Findings:

(1) Failure to Implement Transient Combustibles Procedure:

<u>Introduction</u>: The inspectors identified a non-cited violation (NCV) of Technical Specifications for the failure to implement the transient combustibles procedure. Specifically, the inspectors identified a piece of plywood located between the electrical cabinets for the Spent Fuel Nuclear Island (SFNI) which was contrary to the transient combustibles procedure.

Description: On January 24, 2013, the inspectors identified a piece of plywood located on top of two spare electrical breakers located between the electrical cabinets for SFNI Buses 1 and 2. The plywood piece was rectangular with approximate dimensions of 2 feet wide × 3 feet long × 1 inch thick.

Procedure ZAP 900-03, "Fire Prevention for Transient Fire Loads," Revision 4, implemented the fire protection program for transient combustibles. Step F.3 of procedure ZAP 900-03, specified that lumber and other combustible material required for use in the plant for maintenance and operating activities shall be located to minimize the potential exposure of fire hazards to critical equipment. The inspectors observed that the plywood was less than a foot from the switchgear for SFNI Bus 1 and SFNI Bus 2. As such, the switchgear for both buses was within the zone of influence for a potential fire involving the plywood. Step F.5 of procedure ZAP 900-03 specified that for work areas within the plant, excess combustible materials (e.g., scrap, unused materials, etc.) resulting from work activity in an area must be removed following completion of the activity, or at the end of the work shift, whichever comes first. The inspectors noted that there was no work being performed in the area at the time.

In response to the inspectors' identification of the transient combustibles, the licensee removed the wood from between the two electrical cabinets and initiated CR-2013-000105, "Piece of Wood between SFNI Bus 1 and 2."

<u>Enforcement</u>: Section 5.5.1.b of Technical Specifications requires, in part, that written procedures be established, implemented, and maintained for Fire Protection Program implementation. Procedure ZAP 900-03 implemented the Fire Protection Program. Step F.3 of procedure ZAP 900-03 specified that lumber and other combustible material required for use in the plant for maintenance and operating activities shall be located to minimize the potential exposure of fire hazards to critical equipment. Step F.5 of procedure ZAP 900-03 specified that for work areas within the plant, excess combustible materials (e.g., scrap, unused materials, etc.) resulting from work activity in an area must be removed following completion of the activity, or at the end of the work shift, whichever comes first.

Contrary to the above, on January 24, 2013, the licensee failed to implement procedure ZAP 900-03, a procedure for Fire Protection Program implementation. Specifically, the inspectors observed a piece of plywood located between the electrical cabinets for SFNI Buses 1 and 2. The piece of wood was not located to minimize the potential exposure of fire hazards to critical equipment. In addition, the wood, an excess combustible material, was not removed following completion of the work activity.

The inspectors used Traditional Enforcement guidance to determine the significance of the violation. The inspectors determined that the violation was of more than minor safety significance because the presence of the transient combustible represented a credible fire scenario which could affect equipment important to the defueled condition. However, the violation is of very low safety significance (Severity Level IV) because the transient combustible was not a self

heating material or a low flashpoint liquid, limiting the potential for the plywood to combust. This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy because it was of very low safety significance, was entered into the licensee's CAP as CR-2013-000105, and the piece of wood between the two electrical cabinets was removed. (NCV 05000295/13007-01; 05000305/13007-01, Failure to Implement Transient Combustibles Procedure)

(2) Changes to Pre-Fire Plans:

At the time of the inspection, the licensee was in the process of revising their prefire plans for use by the City of Zion Fire Rescue Department. The licensee no longer maintained a fire brigade except for responders trained to fight incipient fires using a fire extinguisher. In addition, fixed fire hazards were being substantially reduced or eliminated as the result of decommissioning activities. As such, the requirements specified in Sections 2.5.2.i and 2.6.12 of the Fire Protection Report were no longer fully required. The licensee planned to use plant arrangement drawings with fire suppression equipment identified for pre-fire plans.

The licensee had performed Fire Protection Report Change 2012-05, "Convert FP Water Suppression System to Duel Function FP/SW System," dated December 5, 2012, to update the Fire Protection Report to reflect their intended changes to the pre-fire plans. The inspectors noted that the screening criteria section of the Fire Protection Report change did not address the change to prefire plans. The pre-fire plans were only addressed by an attached mark-up page for Section 2.6.12 of the Fire Protection Report. However, the mark-up pages did not address the discussion of pre-fire plans in Section 2.5.2.i of the Fire Protection Report. The inspectors did not consider the omission of the pre-fire plans from the screening criteria section to be a violation of NRC requirements. Although 10 CFR 50.48(f) prohibits changes which reduces the effectiveness of fire protection for facilities, systems, and equipment that could result in a radiological hazard, the regulation does not explicitly require a screening for such changes. The omission of updating Section 2.5.2.i of the Fire Protection Report was considered minor because the change was reflected in 2.6.12 of the Fire Protection Report. The inspectors did not identify any issues with the change as being potentially a reduction in the effectiveness of fire protection considering the state of decommissioning and that the City of Zion Fire Rescue Department would provide the primary fire response.

Since NRC inspections at plants with permanently shutdown reactors are infrequent compared to plants with operating reactors, the inspectors reviewed draft changes, not typically reviewed, to the pre-fire plans to identify any issues that could adversely affect the effectiveness of the fire protection program or plant safety. The inspectors identified that the licensee had omitted fire suppression equipment, such as fire hose stations, from the draft pre-fire plans for the containment buildings. Because the revised pre-fire plans had not yet been implemented, no violation of NRC requirements was identified. (3) Non-Fire Retardant Clothing Worn Near Hot Work:

The inspectors observed hot work activities inside the Unit 1 containment building. The Unit 1 containment building was classified a contaminated area within the radiologically controlled area. As such, at least a full set of anticontamination clothing was required for individuals entering the containment building. Individuals performing the hot work (e.g., cutting using torches) were wearing appropriate flame-retardant protective clothing. However, individuals performing fire watches to support hot activities wore protective covers over hard hats. The protective covers were made of paper versus a fire retardant material. The inspectors noted that individuals performing fire watch duties were often close enough to the hot work to have sparks hit them. The inspectors were concerned that the protective covers could be ignited by sparks from the hot work.

Licensee management had previously established expectations that paper not be worn for hot work activities. In response to the inspectors' observations, the licensee reinforced the expectation with line management. Additionally, the licensee reiterated the expectation during a craft all-hands safety meeting for individuals performing work inside containment. The licensee initiated CR-2013-000156, "Paper Hard Hat Covers Not to Be Worn by Fire Watches or Those Involved in Hot Work," issued February 7, 2013. The licensee also revised Procedure ZAP 900-04, "Fire Prevention When Welding, Cutting, or Grinding (Hot Work)," Revision 7, to specify that personnel performing hot work and fire watch duties shall wear appropriate protective clothing as determined by Safety and Radiation Protection Departments. The inspectors did not identify an explicit fire protection program requirement to use fire retardant clothing for hot work activities.

(4) Lack of Fully Charged Extinguishers for Hot Work:

The inspectors observed fire watches extinguishing small fires from slag near hot work activities in the Unit 1 containment building using a water pump tank fire extinguisher. As a result of periodically using water from the extinguisher to provide spot cooling of slag from hot work, the inspectors considered the extinguisher to no longer be fully charged. Two of the three hot work activities observed did not have an additional fully charged extinguisher of an appropriate type.

In response to the inspectors' observations, the licensee initiated CR-2013-000153, "Observation That Fire Watches Are Partially Discharging Hot Work Extinguishers," issued February 6, 2013. The licensee revised Procedure ZAP 900-04 to explicitly require a full charged fire extinguisher to be available for hot work activities. In addition, the licensee discussed this issue during a craft all-hands safety meeting during the inspection. The inspectors did not identify an explicit fire protection program requirement to have fully charged fire extinguishers available for hot work activities.

### c. Conclusions:

Observed field conditions were generally conducive to safe decommissioning work and were not adverse to plant or personnel safety. However, a non-cited violation of very low safety significance was identified for failure to implement procedure ZAP 900-03 for control of transient combustibles. In addition, the inspectors identified the following weaknesses in the Fire Protection Program where the licensee failed to: fully update the fire protection report to reflect planned changes to pre-fire plans, ensure that fire retardant clothing was worn near hot work activities, and ensure that fire extinguishers used to support hot work activities were fully charged. The licensee implemented corrective actions or had corrective actions in-place to ensure compliance and prevent recurrence.

### 3.0 Management Meetings

### 3.1 Exit Meeting Summary

On February 8, 2013, the inspectors presented the inspection results to Mr. Patrick Daly and other members of the licensee's staff. The licensee acknowledged the results presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

### SUPPLEMENTAL INFORMATION

### PARTIAL LIST OF PERSONS CONTACTED

#### Licensee

- P. Daly, Senior Vice-President and General Manager
- G. Bouchard, Vice President, Engineering, Operations & Nuclear Security
- S. Chris Baker, Vice President, Environmental Health & Safety
- P. Thurman, Vice President, Regulatory Affairs
- D. Brown, Vice President, D&D and Construction
- T. Bejma, Director, Quality Assurance
- R. C. Keene, Director, Radiation Protection
- D. Roth, Engineering Manager
- \*D. Beckman, Beckman and Associates
- \*R. Flahive, CAP Manager

<u>Nuclear Regulatory Commission</u> Christine Lipa, Chief, Materials Control, ISFSI and Decommissioning Branch

\*Participated in February 8, 2013 exit meeting by telephone

## **INSPECTION PROCEDURES (IPs) USED**

- IP 40801 Self-Assessment, Auditing and Corrective Action at Permanently Shutdown Reactors
- IP 71152 Problem Identification and Resolution (Used for Inspector Guidance)
- IP 71801 Decommissioning Performance and Status Review at Permanently Shutdown Reactors

#### ITEMS OPENED, CLOSED, AND DISCUSSED

Opened & Closed

05000295/13007-01	NCV	Failure to Implement Transient
05000304/13007-01		Combustibles Procedure (Section 2.1.b.1)

Discussed

None

### PARTIAL LIST OF DOCUMENTS REVIEWED

The following is a partial list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety, but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report. Problem Identification and Resolution Program

Apparent Cause Evaluation for CR-2012-000518; April 2012 SCWE Survey Indicated Negative Results; dated December 3, 2012

Cause Evaluation Workshop for Causal Event Investigators; Training Slides; dated October 2011

Closed CR List; as of January 22, 2013

Conditions Adverse to Quality or Important to Defueled Condition (ITDC) CR List; as of January 22, 2013

Corrective Action Program; Training Slides; undated

CR Event Codes Data; dated December 2012

CRs with Completed RCEs, CCEs, & ACEs; as of January 22, 2013

CR-2012-000004; Determine if a PE Stamp Is Required on Design Drawings; initiated January 11, 2012

CR-2012-000011; Individual Signed 2 QA Reports as Lead Auditor; initiated January 12, 2012

CR-2012-000076; Elevated Dose Rates on Specimen Capsule; initiated January 31, 2012 and Associated IR dated February 27, 2012 and Associated Radiological Surveys dated Feb 2, 2012

CR-2012-00193; Missile Shield Tarp Trapped Water; initiated November 13, 2012 and Associated IR dated January 3, 2013

CR-2012-000194; Focused Areas Self-Assessment 2011-25; initiated March 1, 2012

CR-2012-000195; The CCA Doors (Large Exterior Containment); initiated March 1, 2012

CR-2012-000203; Water Leak in Unit-2 Containment; initiated March 2, 2012

CR-2012-000309; Electronic Dosimeter Rezeroed; initiated April 3, 2012 and Associated IR dated May 14, 2012

CR-2012-000327 and Associated IR; During Bus 237 Transfer Unable to Start 0; initiated April 5, 2012; IR dated April 16, 2012

CR-2012-000366; PCE; initiated April 19, 2012

CR-2012-000381; Apparent Trend in PCEs; initiated April 25, 2012 and Associated CCE dated June 2, 2012

CR-2012-000432; Contrary to ZS-LS-102, Contact with Regulatory Affairs; initiated May 7, 2012

CR-2012-000440; Migrated from Passport – GTCC Shelf Design; initiated May 9, 2012

CR-2012-000518; April 2012 SCWE Survey Indicated Negative Results; initiated June 4, 2012

CR-2012-000528; Discrete Radioactive Particle on Worker; initiated June 6, 2012 and Associated IR dated June 27, 2012

CR-2012-000540; Migrated from Passport – Design Control PR; initiated June 11, 2012

CR-2012-000541; Migrated from Passport – Engineering Document Issues; initiated June 11, 2012

CR-2012-000556; Migrated from Passport - Removal & Shipping U2 RX Head; initiated June 14, 2012

CR-2012-000568 and Associated IR; 3" Line Cut Into with Orange Paint; initiated June 18, 2012; IR dated September 4, 2012

CR-2012-000588; No Formal Review Process for Changes; initiated June 22, 2012

CR-2012-000601 and Associated CCE; Negative Safety Trend in Crane Operations; initiated June 26, 2012; CCE dated October 2, 2012

CR-2012-000608; Unexpected Worker Dose; initiated June 28, 2012 and Associated IR dated July 5, 2012

CR-2012-000612; Tests of Containment Filters; initiated June 28, 2012

CR-2012-000628 and Associated ACE; Drawing Revision Number Not Changed; initiated July 9, 2012; ACE dated September 10, 2012

CR-2012-000679; Assess DSAR to Account for Use of SSCs for D&D Activities vs. ITDC Definitions; initiated July 17, 2012

CR-2012-000688; Audit Recommendation to Improve Compliance; initiated July 19, 2012

CR-2012-000775 and Associated IR; Issue Review for CR 2012-000568 Missing; initiated August 9, 2012; IR dated October 8, 2012

CR-2012-000885; Boral Coupon Test Inaccuracies; initiated September 6, 2012

CR-2012-000933; Worker Received Dose Rate Alarm; initiated September 29, 2012 and Associated IR dated October 5, 2012

CR-2012-000940; FSA Deficiencies w/ Eng. 50.59 Screenings; initiated September 20, 2012

CR-2012-001011; Positive Air Sample in Unit 1; initiated October 3, 2012 and Associated IR dated October 15, 2012

CR-2012-001081; PCE Trend; initiated October 17, 2012 and Associated CCE dated December 4, 2012

CR-2012-001083; Process for Closing PCEs; initiated October 18, 2012 and Associated IR dated November 8, 2012

CR-2012-001098 and Associated IR; Evaluate Installation Detail of ECN 387419 (Rerouting SFNI City Water Lines); initiated October 24, 2012; IR dated December 11, 2012

CR-2012-001173; Additional Zion Fuel Assemblies Potentially Susceptible to Top Nozzle IGSCC; initiated November 7, 2012

CR-2012-001210; Worker Dose Rate Alarm; initiated November 15, 2012

CR-2012-001300; Dose Rate Alarm in U-2 Containment; initiated December 6, 2012 and associated IR dated December 27, 2012

CR-2012-001325; ANI Information Bulletin 11-02 Neutron Monitoring; initiated December 11, 2012

CR-2012-001330; Incorrect Radioactive Shipment Activity; initiated December 12, 2012 and associated IR dated January 8, 2013

CR-2012-001349; Uncontrolled High Radiation Boundary; initiated December 18, 2012 and Associated QHPI dated December 27, 2012

CR-2012-001359; Condition #7 of 8-120B Certificate of Compliance Not addressed before Loading Cask; initiated December 19, 2012

CR-2013-000024; Failure to Inspect all Welds on U1 Reactor Vessel Loop Caps; initiated January 8, 2013

CR-2013-000061; OPEX Items Determined to Be Applicable to Zion Site Not being Completed in Timely Manner; initiated January 15, 2013

CR-2013-000063; Responses to Potentially Relevant OPEX Items Are Not being Responded to in Timely Fashion; initiated January 15, 2013

DWP WO# 01518008-02 10 CFR 50.59 Applicability Review for Decommissioning Activities; Removal of Large Components from Unit 1, Unit 2 Containments, Revision 0; dated February 29, 2012

FASA-2011-14; Corrective Action Program (CAP) / Key Performance Indicators (KPIs); dated June 23, 2011

FASA-2011-35; Collection and Utilization of Industry Lessons Learned; dated November 8, 2011

FASA-2012-026; eB Nuclear Implementation; dated October 3, 2012

FASA-2012-033; 2012 10 CFR 50.59 / 50.82 Process Assessment; dated November 26, 2012

Focused Self Assessment Report; Problem Identification and Resolution (PI&R) Review; dated January 16, 2013

Inadequate or Ineffective Corrective Actions CR List; as of January 22, 2013

Independent Assessment of Zion*Solutions*' Employee Concerns Program; dated February 24, 2012

Management Review Committee Attendance; dated December 31, 2012

Management Review Committee Package; dated December 6, 2013

Management Review Committee Package; dated January 23, 2013

Management Review Committee Package; dated February 6, 2013

Open CR List; as of January 22, 2013

Open Corrective Actions (CAs) List; as of January 22, 2013

OPEX Screening Review; OPEX/LL Subject: Inappropriate Use of Certified Material Stress Report Yield Stress and Age-Hardened Concrete Strength in Design Calculations; dated September 13, 2012

QA Surveillance Report: S-11-020; Zion *Solutions* Corrective Action Program and Management Response to Events; dated July 31, 2011

QA Surveillance Report: S-12-010; Corrective Action Program; dated May 24, 2012

Quality Audit Report, Audit No. A-12-003; Important to Defueled Condition Programs and Other Requirements; dated January 4, 2013

SY-ZN-103-518; Out-Processing of Personnel; Revision 0

WO Task # 01523310-01; Remove and Dispose of Major U1 RCS Loop Piping, Revision 3

WO Task # 01606209-01; Add Additional Restraint Straps to the Existing Caps Installed on the U1 RCS Loop Piping, Revision 0

ZAP-700-17; Permanently Defueled Operating Experience/Lessons Learned Program, Revision 6; dated October 21, 2011

Zion Station Corrective Action Program Key Performance Indicators (KPIs); as of January 3, 2013

Zion*Solutions* Safety Conscious Work Environment (SCWE) Assessment and Survey Results, dated May 23, 2012

ZS-AD-01; Nuclear Decommissioning Safety Culture Policy, Revision 0; dated July 20, 2010

ZS-AD-08; Project Policy – Safety Conscious Work Environment, Revision 1; dated April 19, 2011

ZS-GN-CAP-CLAS-001; Condition Reports – Module 1 Initiation, Revision 1; dated September 22, 2011

ZS-GN-CAP-CLAS-002; Condition Reports – Module 2 General User, Revision 0; dated October 18, 2011

ZS-GN-CAP-CLAS-003; Condition Reports – Module 3 Shift Supervisor Screening, Revision 0; dated September 28, 2011

ZS-GN-CAP-CLAS-004; Condition Reports – Module 4 Corrective Action Coordinator, Revision 0; dated September 28, 2011

ZS-GN-CAP-CLAS-005; Condition Reports – Module 5 Cause Evaluation, Revision 0; dated October 22, 2011

ZS-GN-CAP-CLAS-006; Condition Reports – Module 6 Conduct of Management Review Committee (MRC), Revision 0; dated October 20, 2011

ZS-LS-105; Condition Reporting, Revision 2; dated January 16, 2013

ZS-LS-107; Apparent Cause Evaluation (ACE), Revision 0

ZS-LS-108; Quick Human Performance Investigation (QHPI), Revision 0

ZS-LS-109; Common Cause Evaluation (CCE), Revision 0

ZS-LS-111; Focused Area Self-Assessments, Revision 0; dated April 3, 2012

ZS-LS-115; Zion Solutions Employee Concerns Program, Revision 0; dated January 9, 2013

2011 OPEX Data Review Log; Undated

2013 Focused Self-Assessment (FSA) Schedule, Revision 0; dated January 10, 2013

2013 Quality Assurance Oversight Schedule, Revision 0; dated January 10, 2013

50.59 Screening No. 2012-28; Large Component Removal from Unit 1 and Unit 2 Containments, Revision 23; dated March 24, 2012

<u>Fire Protection Program</u> AOP-4.5; Plant Fire Alarm; Revision 9

AOP-4.6; Loss of Fire Protection Water; Revision 1

CR-2012-000522; Hot Work Performed While Wearing Paper; initiated June 5, 2012

CR-2012-000526; Small Fire during Hot Work; initiated June 6, 2012

CR-2012-000723; Improper Storage of Combustibles; initiated July 25, 2012

CR-2012-000734; Fire Protection Valves Found Out of PT-2; initiated July 30, 2012

CR-2012-000819; Small Fire Extinguished on U-1 Pump Deck; initiated August 21, 2012

CR-2012-000998; Plastic Sheeting in U1 Cavity Caught Fire; initiated October 2, 2012

CR-2012-001046; Sparks from U1 S/G Dome Cutting Ignited; initiated October 10, 2012

CR-2012-001168; Small Fire in U-1 Containment – Extinguished; initiated November 7, 2012

CR-2012-001170; Employee Burns Arm from Slag; initiated November 7, 2012

CR-2012-001194; Employee Burned Arm While Welding, initiated November 14, 2012

CR-2012-001261; Rubber shoe cover caught on fire; initiated November 28, 2012

CR-2013-000151; Issues noted during dry runoff hydrant jumper by the Fire Dept; initiated February 6, 2013

Fire Protection Report Change 2004-01; Drain Hose Stations and Isolate Header to Containment, De-energize Detection Circuits, Inside Containment; dated November 1, 2004

Fire Protection Report Change 2010-01; Restore Standpipes & Hose Stations to Service, Inside Containments Prior to Decommissioning Work; dated January 14, 2011

Fire Protection Report Change 2011-04; Convert Standpipe Hose Stations, Inside Containments to Dry Standpipe Hose Stations; dated November 11, 2011

Fire Protection Report Change 2012-01; SW Pumps Are Replaced with Smaller Pumps; dated May 2, 2012

Fire Protection Report Change 2012-04; Abandon Diesel Driven Fire Pump; dated December 10, 2012

Fire Protection Report Change 2012-05; Convert FP Water Suppression System to Duel Function FP/SW System, dated December 5, 2012

Issue Review for CR-2012-000998 and CR-2012-001046; dated November 1, 2012

ZAP 900-01; Station Fire Protection Program; Revision 13

ZAP 900-03; Fire Prevention for Transient Fire Loads; Revision 4

ZAP 900-04; Fire Prevention when Welding, Cutting, or Grinding (Hot Work); Revision 5

ZAP 900-04; Fire Prevention when Welding, Cutting, or Grinding (Hot Work); Revision 6

ZAP 900-04; Fire Prevention when Welding, Cutting, or Grinding (Hot Work); Revision 7

Condition Reports Generated As a Result of the NRC Inspection

CR-2013-000095; Recommended Improvements to Employee Out-Processing Checklists; initiated January 23, 2013

CR-2013-000096; NRC Hotline Number Not Provided during NGET; initiated January 23, 2013

CR-2013-000098; MRC Approved Version of CCE-2012-000381 Not Loaded into EB Nuclear; initiated January 24, 2013

CR-2013-000105; Piece of Wood between SFNI Bus 1 and 2; initiated January 24, 2013

CR-2013-000106; Are NRC Form 3s Posted "Prominently" Enough; initiated January 24, 2013

CR-2013-000107; NRC Observation Regarding Pre-Fire Plan Changes; initiated January 24, 2013

CR-2013-000149; MRC Meeting Did Not Include Discussion of One Aspect of Event; initiated February 6, 2013

CR-2013-000151; Issues Noted during Dry Run of Hydrant Jumper by Fire Department; initiated February 6, 2013

CR-2013-000153; Observation that Fire Watches Are Partially Discharging Hot Work Extinguishers; initiated February 6, 2013

CR-2013-000156; Paper Hard Hat Covers Not to Be Worn by Fire Watches Or Those Involved in Hot Work; initiated February 7, 2013

CR-2013-000158; Should DSAR Be Updated More frequently to Include ITDC Changes; initiated February 7, 2013

## LIST OF ACRONYMS USED

AC	Apparent Cause
ACE	Apparent Cause Evaluation
ADAMS	Agencywide Document Access Management System
CAP	Corrective Action Program
CCE	Common Cause Evaluation
CFR	Code of Federal Regulations
CR	Condition Report
DNMS	Division of Nuclear Materials Safety
IP	Inspection Procedure
IR	Issue Reviews
NCV	Non-Cited Violation
NRC	U.S. Nuclear Regulatory Commission
OE	Operating Experience
QHPI	Quick Human Performance Investigation
PI&R	Problem Identification and Resolution
SCWE	Safety Conscious Work Environment
SFNI	Spent Fuel Nuclear Island

In accordance with Title 10 of the Code of Federal Regulations (CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Website at <u>http://www.nrc.gov/reading-rm/adams.html</u> (the Public Electronic Reading Room).

We will gladly discuss any questions you may have regarding this inspection.

Sincerely,

#### /**RA**/

Christine Lipa, Chief Materials Control, ISFSI, and Decommissioning Branch Division of Nuclear Materials Safety

Docket Nos. 050-00295; 050-00304 License Nos. DPR-39; DPR-48

Enclosure:

Inspection Report No. 050-00295/13-007(DNMS); 050-00304/13-007(DNMS)

cc w/encl: Zion Solutions Service List Suzi Schmidt, Illinois General Assembly JoAnn D. Osmond, Illinois General Assembly Barry A. Burton, Lake County Administrator Mark C. Curran, Jr., Lake County Sheriff Laurie Cvengros, Village Clerk, Village of Beach Park, Illinois Willard R. Helander, Lake County Clerk Jana Lee, Village Clerk, Village of Winthrop Harbor, Illinois Judy L. Mackey, City Clerk, City of Zion, Illinois Irene T. Pierce, Lake County, Illinois

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