



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

June 4, 2014

Mr. Rafael Flores  
Senior Vice President and  
Chief Nuclear Officer  
Attention: Regulatory Affairs  
Luminant Generation Company LLC  
P.O. Box 1002  
Glen Rose, TX 76043

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 1 AND 2 - STAFF  
ASSESSMENT OF THE FLOODING WALKDOWN REPORT SUPPORTING  
IMPLEMENTATION OF NEAR-TERM TASK FORCE RECOMMENDATION 2.3  
RELATED TO THE FUKUSHIMA DAI-ICHI NUCLEAR POWER PLANT  
ACCIDENT (TAC NOS. MF0214 AND MF0215)

Dear Mr. Flores:

On March 12, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12053A340), the U.S. Nuclear Regulatory Commission (NRC) issued a request for information letter per Title 10 of the *Code of Federal Regulations*, Section 50.54(f) (50.54(f) letter). The 50.54(f) letter was issued to power reactor licensees and holders of construction permits requesting addressees to provide further information to support the NRC staff's evaluation of regulatory actions that may be taken in response to lessons learned from Japan's March 11, 2011, Great Tōhoku Earthquake and subsequent tsunami. The request addressed the methods and procedures for nuclear power plant licensees to conduct seismic and flooding hazard walkdowns to identify and address degraded, nonconforming, or unanalyzed conditions through the corrective action program, and to verify the adequacy of the monitoring and maintenance procedures.

By letter dated November 27, 2012 (ADAMS Accession No. ML12340A433), Luminant Generation Company LLC (the licensee), submitted a Flooding Walkdown Report as requested in Enclosure 4 of the 50.54(f) letter for the Comanche Peak Nuclear Power Plant, Units 1 and 2 (CPNPP). By letter dated January 30, 2014 (ADAMS Accession No. ML14043A105), the licensee provided a response to the NRC staff's request for additional information dated December 23, 2013, for the staff to complete its assessments.

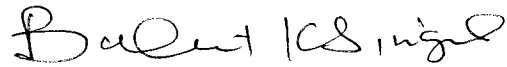
The NRC staff reviewed the information provided and, as documented in the enclosed staff assessment, determined that the licensee has provided sufficient information to be responsive to Enclosure 4 of the 50.54(f) letter.

R. Flores

- 2 -

If you have any questions, please contact me at 301-415-3016 or by e-mail at [Balwant.Singal@nrc.gov](mailto:Balwant.Singal@nrc.gov).

Sincerely,



Balwant K. Singal, Senior Project Manager  
Plant Licensing Branch IV-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-445 and 50-446

Enclosure:  
Staff Assessment of Flooding  
Walkdown Report for CPNPP

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STAFF ASSESSMENT OF FLOODING WALKDOWN REPORT  
NEAR-TERM TASK FORCE RECOMMENDATION 2.3 RELATED TO  
THE FUKUSHIMA DAI-ICHI NUCLEAR POWER PLANT ACCIDENT  
LUMINANT GENERATION COMPANY LLC  
COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 1 AND 2  
DOCKET NOS. 50-445 AND 50-446

1.0 INTRODUCTION

On March 12, 2012,<sup>1</sup> the U.S. Nuclear Regulatory Commission (NRC) issued a request for information per Title 10 of the *Code of Federal Regulations*, Section 50.54(f) (50.54(f) letter) to all power reactor licensees and holders of construction permits in active or deferred status. The request was part of the implementation of lessons learned from the accident at the Fukushima Dai-ichi nuclear power plant. Enclosure 4, "Recommendation 2.3: Flooding,"<sup>2</sup> to the 50.54(f) letter requested licensees to conduct flooding walkdowns to identify and address degraded, nonconforming, or unanalyzed conditions using the corrective action program (CAP), verify the adequacy of monitoring and maintenance procedures, and report the results to the NRC.

Enclosure 4 of the 50.54(f) letter requested licensees to include the following:

- a. Describe the design basis flood hazard level(s) for all flood-causing mechanisms, including groundwater ingress.
- b. Describe protection and migration features that are considered in the licensing basis evaluation to protect against external ingress of water into SSCs [systems, structures, and components] important to safety.
- c. Describe any warning systems to detect the presence of water in rooms important to safety.
- d. Discuss the effectiveness of flood protection systems and exterior, incorporated, and temporary flood barriers. Discuss how these systems and barriers were evaluated using the acceptance criteria developed as part of Requested Information item 1.h.
- e. Present information related to the implementation of the walkdown process (e.g., details of selection of the walkdown team and procedures) using the documentation template discussed in Requested Information item 1.j, including actions taken in response to the peer review.

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<sup>1</sup> ADAMS Accession No. ML12053A340.

<sup>2</sup> ADAMS Accession No. ML12056A050.

- f. Results of the walkdown including key findings and identified degraded, nonconforming, or unanalyzed conditions. Include a detailed description of the actions taken or planned to address these conditions using guidance in Regulatory Issues Summary 2005-20, Revision 1, Revision to the NRC Inspection Manual Part 9900 Technical Guidance, "Operability Conditions Adverse to Quality or Safety," including entering the condition in the corrective action program.
- g. Document any cliff-edge effects identified and the associated basis. Indicate those that were entered into the corrective action program. Also include a detailed description of the actions taken or planned to address these effects.
- h. Describe any other planned or newly installed flood protection systems or flood mitigation measures including flood barriers that further enhance the flood protection. Identify results and any subsequent actions taken in response to the peer review.

In accordance with the 50.54(f) letter, Enclosure 4, Required Response Item 2, licensees were required to submit a response within 180 days of the NRC's endorsement of the flooding walkdown guidance. By letter dated May 21, 2012,<sup>3</sup> the Nuclear Energy Institute (NEI) staff submitted NEI 12-07, Revision 0, "Guidelines for Performing Verification Walkdowns of Plant Flood Protection Features," May 2012, to the NRC staff to consider for endorsement. By letter dated May 31, 2012,<sup>4</sup> the NRC staff endorsed the walkdown guidance.

By letter dated November 27, 2012,<sup>5</sup> the Luminant Generation Company, LLC (Luminant, the licensee), provided a response to Enclosure 4 of the 50.54(f) letter Required Response Item 2, for the Comanche Peak Nuclear Power Plant, Units 1 and 2 (CPNPP). The NRC staff issued a request for additional information (RAI) to the licensee regarding the available physical margin (APM) by letter dated December 23, 2013.<sup>6</sup> The licensee responded by letter dated January 30, 2014.<sup>7</sup>

The NRC staff evaluated the licensee's submittals to determine if the information provided in the walkdown report met the intent of the walkdown guidance and if the licensee responded appropriately to Enclosure 4 of the 50.54(f) letter.

## 2.0 REGULATORY EVALUATION

The SSCs important to safety in operating nuclear power plants are designed either in accordance with, or meet the intent of Appendix A to 10 CFR Part 50, "General Design Criteria for Nuclear Power Plants," Criterion 2, "Design bases for protection against natural phenomena," and Appendix A, "Seismic and Geologic Siting Criteria for Nuclear Power Plants," to 10 CFR Part 100, Criterion 2 states that SSCs important to safety at nuclear power plants

<sup>3</sup> ADAMS Package Accession No. ML121440522.

<sup>4</sup> ADAMS Accession No. ML12144A142.

<sup>5</sup> ADAMS Accession No. ML12340A433.

<sup>6</sup> ADAMS Accession No. ML13325A891.

<sup>7</sup> ADAMS Accession No. ML14043A105.

shall be designed to withstand the effects of natural phenomena such as earthquakes, tornadoes, hurricanes, floods, tsunamis, and seiches without loss of capability to perform their safety functions.

For initial licensing, each licensee was required to develop and maintain design bases that, as defined by 10 CFR 50.2, identify the specific functions to be performed by an SSC of a facility, and the specific values or ranges of values chosen for controlling parameters as reference bounds for the design.

The design bases for the SSCs reflect appropriate consideration of the most severe natural phenomena that have been historically reported for the site and surrounding area. The design bases also reflect sufficient margin to account for the limited accuracy, quantity, and period of time in which the historical data have been accumulated.

The current licensing basis (CLB), as defined in 10 CFR 54.3(a), is the set of NRC requirements applicable to a specific plant, including the licensee's written commitments for ensuring compliance with, and operation within, applicable NRC requirements and the plant-specific design basis.

### 3.0 TECHNICAL EVALUATION

#### 3.1 Design Basis Flooding Hazard for CPNPP

The licensee stated that the licensing basis flood hazard at the CPNPP site is a probable maximum precipitation (PMP) event (39.1 inches of rainfall in 48 hours) that takes place in combination with fetch-driven wave run-up associated with the Squaw Creek Reservoir (SCR). The PMP elevation of 789.7 feet (ft) plus the 5.0 ft associated with wave run-up yields an estimated maximum flood level of 794.7 ft mean sea level (MSL).

The licensee stated that the grade elevation of the CPNPP site is 810 ft above MSL. All safety-related systems within the CPNPP site footprint have a reported minimum floor elevation at or above the 810-ft elevation or 15.4 ft above the design basis flood hazard. The elevation of the safety-related Service Water Intake Structure (SWIS) operating deck located on the reservoir is reported to be 796 ft MSL.

Given its elevation, the licensee reports that the CPNPP site is not considered to be susceptible to flooding by streams, dam failures, ice flooding, or channel migration. The site also is not adjacent to any coastal area and, therefore, not vulnerable to flooding by tsunami, tidal surge, or seiche. As a consequence, none of the aforementioned flooding scenarios were considered as part of the original licensing basis or in the earlier Individual Plant Examination to External Initiating Events for the site. As such, the CPNPP site can be considered a "dry site."

Based on the NRC staff's review, the licensee appears to have sufficiently described the design basis flood hazard level(s) as requested in the 50.54(f) letter, and consistent with the walkdown guidance.

## 3.2 Flood Protection and Mitigation

### 3.2.1 Flood Protection and Mitigation Description

The licensee identified the CLB for flood protection at the CPNPP site is a PMP event that takes place in combination with fetch-driven wave run-up from the reservoir. The licensee reported that the yard drainage system has been designed to accommodate the PMP inflow and prevent ponding which could flood safety-related structures. The licensee stated that the surface drainage is also enhanced by the geology of the site. The licensee also stated that the site is underlain by the Glen Rose limestone which, because of its low permeability, will not generally permit infiltration of surface water. The NRC staff notes that the nature of the site drainage is such that the topography in combination with the geology would divert surface water away from CPNPP structures; consequently, the licensee noted that the CLB states that no surface ponding of water will affect safety-related structures or systems. licensee stated that the all safety-related SSCs have been designed to withstand hydrostatic loads equivalent to an elevation of 810 ft MSL except for the SWIS operating deck within the reservoir; that feature has been designed to meet hydrostatic loads equivalent to 793 ft MSL. Licensee stated that the manhole covers and Class 1E cable vaults present within the site are sealed to prevent surface-water intrusion into safety-related buildings.

### 3.2.2 Incorporated and Exterior Barriers

The licensee stated that the site has incorporated and/or exterior barriers that are permanently in-place, requiring no operator manual actions. The licensee reported that these barriers are passive, and include interior and exterior walls of structures, floors, doors, penetrations, roofs, and sump pumps. The licensee also credited the existing topography (both natural and modified) of the site as well as catchment basins, drainage basins, and drainage ditches.

The licensee reported that no safety-related systems or equipment are affected by flooding. This includes the dam associated with the reservoir.

### 3.2.3 Temporary Barriers and Other Manual Actions

The licensee stated that the site has no temporary barriers and other manual actions that require operator action in the event of a flood threat

However, when the elevation of the SCR reaches 776 ft MSL, the licensee noted that the plant initiates certain manual operator actions. These include entry into the *Technical Requirements Manual* due to a limiting condition of operation as well as entry into *Abnormal Conditions Procedures Manual*. The *Technical Requirements Manual* actions described include the performance of surveillances for flood protection measures which are in effect by verifying that flow paths from the SCR, which are open for maintenance, are isolated from the reservoir by isolation valves, or stop gates, or are at an elevation above 790 ft MSL.

Additional *Abnormal Conditions Procedures Manual* actions described include:

- Classifying the event per the *Emergency Plan Manual*.

- Notifying authorities in Somervell and Hood Counties that a potential flooding exists from the SCR when the water level there exceeds an elevation of 780 ft MSL, ensuring that the SWIS floating dock located within the reservoir has been removed, and inspecting dams associated with the SCR system.
- Other actions which are not included in the analysis of the PMF and are considered administrative requirements. These include shutting down the makeup pumps and increasing the water release rate from the SCR. Additionally, the severe weather preparations listed in the manual are administrative controls and not required actions.

#### 3.2.4 Reasonable Simulation and Results

The purpose of performing reasonable simulations is to verify that the required flood protection procedures or activities can be executed as specified/as written. The licensee reported that the CPNPP site has no flood protection and/or mitigation features that would require the implementation of a procedure for the performance of manual/operator actions. Nevertheless, the licensee reported that it had performed a reasonable simulation of the flood response procedures, including applicable technical requirements manual sections and technical specifications. The licensee's simulation resulted in the identification of several observations regarding administrative implementation of flood protection actions and they were entered into the CAP. The licensee reported that the observations that were most noteworthy were related to increasing the robustness of the flood protection procedures themselves regarding time dependent actions and staffing requirements.

#### 3.2.5 Conclusion

Based on the NRC staff's review, the licensee appears to have described protection and mitigation features as requested in the 50.54(f) letter, and consistent with the walkdown guidance.

#### 3.3 Warning Systems

The licensee stated that there are no credited external flooding warning systems installed at the CPNPP site.

Based on the NRC staff's review, the licensee appears to have provided information to describe any warning systems as requested in the 50.54(f) letter, and consistent with the walkdown guidance.

#### 3.4 Effectiveness of Flood Protection Features

The licensee reported that the licensing basis flood event at the CPNPP site is a PMP event in combination with fetch-driven wave run-up from the SCR.

The licensee stated that all flood protection features at the CPNPP site are intended to protect safety-related equipment and are passive design features. These features include reliance on

the existing topography or grading of the ground surface in combination a gravity-driven drainage system.

Based on the NRC staff's review, the licensee appears to have discussed the effectiveness of flood protection features as requested in the 50.54(f) letter, and consistent with the walkdown guidance.

### 3.5 Walkdown Methodology

By letter dated June 5, 2012,<sup>8</sup> the licensee responded to the 50.54(f) letter that it intended to utilize the NRC-endorsed walkdown guidelines contained in NEI 12-07, "Guidelines for Performing Verification Walkdowns of Plant Flood Protection Features."<sup>9</sup> The licensee's walkdown submittal dated November 27, 2012, indicated that the licensee implemented the walkdowns consistent with the intent of the guidance provided in NEI 12-07. The licensee did not identify any exceptions from NEI 12-07.

Based on the NRC staff's review, the licensee appears to have presented information related to the implementation of the walkdown process as requested in the 50.54(f) letter, and consistent with the walkdown guidance.

### 3.6 Walkdown Results

#### 3.6.1 Walkdown Scope

The licensee performed walkdowns of currently-credited flood protection features at the CPNPP site; however, the exact number of as-built features visually inspected was not reported. The walkdown scope was developed by the licensee to confirm that flood protection features credited in the CLB were acceptable and capable of performing their credited flood protection functions. The features generally reported to have been inspected included: exterior walls, floors, and penetrations; Class IE cable vaults/manholes; diesel generator fuel oil tank manholes; and elements of the onsite drainage system (both natural and man-made).

In addition, the licensee performed reasonable simulation of manual actions; the manner in which the simulation itself was performed (either physical simulations, tabletop exercises, or a combination thereof) by the licensee was not specified. The licensee used/developed acceptance criteria in consistent with the intent of NEI 12-07.

#### 3.6.2 Licensee Evaluation of Flood Protection Effectiveness, Key Findings, and Identified Deficiencies

The licensee performed an evaluation of the overall effectiveness of the CPNPP's flood protection features. Based on its walkdown inspections, the licensee verified that permanent safety-related SSCs at the CPNPP site were acceptable, not degraded, and capable of performing their intended design function as credited in the CLB. No CPNPP operator actions are credited for external flood protection.

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<sup>8</sup> ADAMS Accession No. ML12177A055.

<sup>9</sup> ADAMS Accession No. ML12173A215.



NEI 12-07 defines a deficiency as follows: "a deficiency exists when a flood protection feature is unable to perform its intended function when subject to a design basis flooding hazard." The licensee reported that it did not identify any deficiencies during the course of the flood walkdowns for the CPNPP site nor were there any conditions observed that warranted entry into the CAP via a Condition Report. However, the licensee did enter observations for enhancements to features that protect seismic category I equipment into the CAP.

NEI 12-07 specifies that licensees identify observations/potential deficiencies in the CAP that were not yet dispositioned at the time the walkdown report was submitted. The licensee reported certain observations for the purposes of the CAP that had not been dispositioned at the time the Near-Term Task Force Recommendation 2.3 (NTTF 2.3) Walkdown Report was prepared. They included the following:

- *Exterior Walls, Floors, and Penetrations:* A few rooms in Seismic Category I structures were reported to have showed signs of past or active in-leakage from groundwater through penetrations. The reports of in-leakage by the licensee were considered to be minute in nature and were judged not to represent a significant volume of accumulated water that exceeded the bounds of internal flooding analyses, nor did those locations and volumes of in-leakage affect the operability of safe shutdown systems and equipment important to safety.

The condition of certain seals or sleeves for several of the penetrations was found by the licensee to be slightly impaired or inconsistent with the original design but the overall observed integrity and credited function of the feature was determined to be acceptable to mitigate the potential effects of the applicable flood causing mechanism, in this case groundwater intrusion.

Lastly, two undocumented penetrations were identified by the licensee: one in the SWIS and the other in the floor of a room of the Electrical and Control Building. The observations were entered into the CAP to address the observed configuration differences between the as-found and as-designed conditions. Additionally, the IER 11-1 walkdown had previously identified in the CAP potential enhancements to the seal inspection program to clarify the PM scope and acceptance criteria.

- *Class 1E Cable Vaults / Manholes:* The review of past quarterly inspections of the Class 1E cable vaults revealed that some of the vaults had accumulated water that required pumping-out. The licensee's CAP determined that the submergence of the bottom row of low-voltage cables in the applicable vaults did not pose a challenge to the operability of safe shutdown equipment. A CAP entry was made to monitor subsequent preventive maintenance inspection results of the subject manholes and determine the sufficiency of the current preventive maintenance inspection interval based on the recorded water levels in the vaults.
- *Diesel Generator Fuel Oil Tank Manholes:* Inspection of the Diesel Generator Fuel Oil Storage Tank Manholes and associated cover plates were reported to have showed signs of past water in-leakage around cover plate and sample

access cover gaskets. The reports of past and currently observed in-leakage quantities were considered minimal by the licensee and therefore insufficient to cause loss of function of any safety related emergency diesel generator equipment within the manhole. The physical configuration of the six manholes in question was identified as being inconsistent with design drawings. These observations were entered into the CAP. The licensee reported that work orders had been initiated to rework the manholes as required. However, such observations had no impact on the flood protection function of the manholes or potential water intrusion mechanisms. Additionally, the licensee reported that a CAP entry had been made to assess the need for potential gasket seal inspection enhancements to existing CPNPP controlled preventive maintenance/surveillance procedures.

- *Onsite Natural Drainage:* The catch basins, drainage basins, swales, and trenches were inspected during the NTTF 2.3 walkdown. The licensee reported that some of the catch basins were partially or more covered with gravel. One of the catch basin grates was broken, allowing gravel to potentially clog the outlet (note that subsurface drainage piping is managed as part of the NEI 09-14 Underground Piping and Tanks Integrity Initiative). Some of the drainage basins contained vegetation in them. The licensee also noted that four swales identified in the CLB could not be located. For two of these swales, the licensee reported that the runoff had been re-routed to other nearby swales. For the other two remaining swales, the installed catch basins accept their runoff. The licensee identified several areas of visible evidence of past minor ponding, puddles, and/or water staining; it was noted that the areas in question were not located near Seismic Category I structures. The observed conditions were entered into the CAP to reconcile the as-found configuration with the CLB description.

Additionally, the licensee noted that an earlier walkdown had identified in the CAP the need to establish a new preventive maintenance surveillance procedure or revise an existing preventive maintenance procedure to inspect the site drainage system for debris. This was reinforced during the NEI 12-07 walkdown. In total, the site drainage is functional based on the comparison of the inspected conditions described in the Final Safety Analysis Report.

- *External Flood Response Procedures:* The licensee noted that simulation of the CPNPP flood response procedures, including applicable technical requirements manual sections and technical specifications, resulted in several observations regarding administrative implementation of flood protection actions; these were entered into the CAP. The observations that were most noteworthy were related to increasing the robustness of the procedures regarding time dependent actions and staffing requirements.

### 3.6.3 Flood Protection and Mitigation Enhancements

There are no recently implemented or planned enhancements to the CPNPP site identified by the licensee that are intended to improve or increase flood protection and/or mitigation.

#### 3.6.4 Planned or Newly Installed Features

The licensee did not determine that changes were necessary by the flood walkdowns.

#### 3.6.5 Deficiencies Noted and Actions Taken or Planned to Address

The licensee reported that it did not identify any deficiencies during the course of the flood walkdowns.

#### 3.6.6 Staff Analysis of Walkdowns

The NRC staff reviewed the licensee's walkdown report dated November 27, 2012.

As part of the walkdown effort, the licensee evaluated the capability of flood protection features by conducting a set of visual inspections of the CPNPP site. The licensee identified no deficiencies. The licensee stated that SSCs were confirmed to be in place, available, and capable of performing their intended flood protection or mitigation functions. Certain changes and/or enhancements to flood protection or mitigation as well as existing programs and processes were identified as a result of the walkdowns and were entered into the CPNPP CAP for resolution. As described in the licensee's Walkdown Report, they included certain observations concerning specific exterior walls, floors, and penetrations, Class IE cable vaults/manholes, diesel generator fuel oil tank manholes, onsite natural drainage, and external flood response procedures.

Based on the NRC staff's review, the licensee has appears to have provided results of the walkdown and described any other planned or newly installed flood protection systems or flood mitigation measures as requested in the 50.54(f) letter and consistent with the walkdown guidance. Based on the information provided in the licensee's submittals, the NRC staff concludes that the licensee's implementation of the walkdown process meets the intent of the walkdown guidance.

#### 3.6.7 Available Physical Margin

The NRC staff submitted a request for additional information (RAI) to the licensee regarding the available physical margin (APM) dated December 23, 2013. The licensee responded with a letter dated January 30, 2014. The licensee has reviewed its APM determination process, and entered any unknown APMs into the CAP. The staff reviewed the response, and concludes that the licensee met the intent of the APM determination per NEI 12-07.

Based on its review, the NRC staff concludes that the licensee has documented the information requested for any cliff-edge effects, as indicated in Requested Information item 2.g of the 50.54(f) letter consistent with Appendix D, Walkdown Report, of the walkdown guidance. Further, the staff reviewed the response, and concludes that the licensee met the intent of the APM determination per NEI 12-07.

### 3.7 NRC Oversight

#### 3.7.1 Independent Verification by Resident Inspectors

On June 27, 2012, the NRC issued Temporary Instruction (TI) 2515/187, "Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns."<sup>10</sup> In accordance with the TI, NRC inspectors independently verified that the CPNPP licensee implemented the flooding walkdowns in accordance with the walkdown guidance. Additionally, the inspectors independently performed walkdowns of a sample of flood protection features. The inspection report dated February 11, 2013,<sup>11</sup> documents the results of this inspection. No findings of significance were identified.

#### 4.0 SSCs NOT WALKED DOWN

The licensee identified inaccessible features but no restricted access features.

#### 4.1 Restricted Access

The licensee reported that there were no features or areas of the CPNPP physical plant for which there was restricted access as defined by NEI 12-07. Therefore, there are no restricted access SSCs to be walked down at a later date.

#### 4.2 Inaccessible Features

The licensee reported that certain features of the CPNPP physical plant were not inspected because of inaccessibility. They included the following:

- Waterstops embedded in the walls at all construction joints below grade in Unit 1 and Unit 2 Safeguards buildings.
- Eight penetrations located in the Electrical and Control Building Air Compressor Room.

For the reasons described in its NTTF 2.3 Walkdown Report (at pages 19–20), the licensee reported that it had reasonable assurance that the features described above were available and would be able to perform their intended design function.

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<sup>10</sup> ADAMS Accession No. ML12129A108.

<sup>11</sup> ADAMS Accession No. ML13042A290.

## 5.0 CONCLUSION

The NRC staff concludes that the licensee's implementation of flooding walkdown methodology meets the intent of the walkdown guidance. The staff concludes that the licensee, through the implementation of the walkdown guidance activities and, in accordance with plant processes and procedures, verified the plant configuration with the current flooding licensing basis; addressed degraded, nonconforming, or unanalyzed flooding conditions; and verified the adequacy of monitoring and maintenance programs for protective features. Furthermore, the licensee's walkdown results, which were verified by the staff's inspection, identified no immediate safety concerns. The NRC staff reviewed the information provided and determined that sufficient information was provided to be responsive to Enclosure 4 of the 50.54(f) letter.

R. Flores

- 2 -

If you have any questions, please contact me at 301-415-3016 or by e-mail at [Balwant.Singal@nrc.gov](mailto:Balwant.Singal@nrc.gov).

Sincerely,

*/RA/*

Balwant K. Singal, Senior Project Manager  
Plant Licensing Branch IV-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-445 and 50-446

Enclosure:  
Staff Assessment of Flooding  
Walkdown Report for CPNPP

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**ADAMS Accession No.: ML14133A254**

\*email dated April 23, 2014

|        |                    |                    |                    |                   |
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