Xcel Energy®

Monticello Nuclear Generating Plant
2807 W. CR 75, Monticello
Monticello, MN 55362

November 27, 2012

L-MT-12-097
10 CFR 50.54(f)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Monticello Nuclear Generating Plant
Docket No. 50-263
Renewed Facility Operating License No. DPR-22

MNGP Final Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding the Flooding Aspects of Recommendation 2.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident

References:

1. NRC Letter, "Request for Information Pursuant to Title 10 of the *Code of Federal Regulations* 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated March 12, 2012, ADAMS Accession No. ML12053A340.

2. NRC Letter, "Endorsement of Nuclear Energy Institute (NEI) 12-07, 'Guidelines for Performing Verification Walkdowns of Plant Flood Protection Features,'" dated May 31, 2012, ADAMS Accession No. ML12144A142.

3. NSPM Letter to NRC, "MNGP 90-Day Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding the Flooding Aspects of Recommendations 2.1 and 2.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated June 11, 2012, ADAMS Accession No. ML12164A436.

On March 12, 2012, the NRC Staff issued Reference 1 to all NRC power reactor licensees and holders of construction permits in active or deferred status. Enclosure 4 of the March 12, 2012 letter contains specific Requested Actions, Requested Information, and Required Responses associated with Near-Term Task Force (NTTF) Recommendation 2.3, Flooding. As part of this letter, licensees were requested to

perform flooding walkdowns to verify that plant features that are credited in the current licensing basis (CLB) for protection and mitigation from external flood events are available, functional, and properly maintained.

In a letter to the NRC dated June 11, 2012 (Reference 3), Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy, confirmed that it would use the flooding walkdown procedure NEI 12-07, "Guidelines for Performing Verification Walkdowns of Plant Flood Protection Features," endorsed by the NRC in Reference 2, as the basis for the flooding walkdowns at the Monticello Nuclear Generating Plant (MNGP). In accordance with 10 CFR 50.54(f), NSPM is providing the results of its external flooding walkdowns, as well as its responses to the requested information in Enclosure 4 of Reference 1, on behalf of the MNGP.

The enclosure to this letter provides the information requested by the NRC in Reference 1 for NTTF Recommendation 2.3, Flooding. It also includes the results of the external flooding walkdowns completed at the MNGP following the guidance of NEI 12-07.

If there are any questions, or if additional information is needed, please contact Ms. Jennie Eckholt, Licensing Engineer, at 612-330-5788.

Summary of Commitments

This letter proposes the following new commitments and no revisions to existing commitments.

	Regulatory Commitments	Due Date
1	NSPM will complete resolution of deficiencies identified in Table 3.6-1, "Deficiency List," of the enclosure.	February 15, 2013
2	NSPM will complete inspection of flood protection features identified in Table 3.6-3, "Restricted Access," of the enclosure.	October 31, 2013

I declare under penalty of perjury that the foregoing is true and correct.

Executed on November 27, 2012.

John C. Grubb
Plant Manager, Monticello Nuclear Generating Plant
Northern States Power Company - Minnesota

Enclosure

cc: Administrator, Region III, USNRC
Director, Office of Nuclear Reactor Regulation (NRR)
NRR Project Manager, MNGP, USNRC
Senior Resident Inspector, MNGP, USNRC

ENCLOSURE

MONTICELLO NUCLEAR GENERATING PLANT
EXTERNAL FLOODING WALKDOWN REPORT

(31 Pages Follow)

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REQUEST FOR INFORMATION PURSUANT TO 10 CFR 50.54(f) NEAR-TERM TASK FORCE RECOMMENDATION 2.3 – FLOOD WALKDOWN REPORT

1.0 INTRODUCTION

The United States Nuclear Regulatory Commission (NRC) issued a letter to licensees entitled "Request for Information Pursuant to Title 10 of the *Code of Federal Regulations* 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," on March 12, 2012 (Reference 5.1). In accordance with Near-Term Task Force (NTTF) Recommendation 2.3, Flooding, of the March 12, 2012 NRC Request for Information (Enclosure 4 to Reference 5.1), Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy, was requested to perform walkdowns to verify that plant features credited in the current licensing basis (CLB) for protection and mitigation from external flood events are available, functional, and properly maintained for the Monticello Nuclear Generating Plant (MNGP).

External flooding walkdowns were performed by NSPM following the guidelines provided in Nuclear Energy Institute (NEI) document 12-07, Revision 0-A, "Guidelines for Performing Verification Walkdowns of Plant Flood Protection Features," dated May 2012 (Reference 5.2). The NEI 12-07 guidance has been endorsed by the NRC in a letter to NEI dated May 31, 2012 (Reference 5.3). The results of the external flooding walkdowns performed at MNGP are presented herein.

2.0 PURPOSE

In response to the accident at the Fukushima Dai-ichi nuclear power plant caused by the March 11, 2011, Tohoku earthquake and subsequent tsunami, the Commission established the NTTF to conduct a systematic review of NRC processes and regulations, and to make recommendations to the Commission for its policy direction. The NTTF recommendations are contained in a report to the commission, SECY-11-0093, "Near-Term Report and Recommendations for Agency Actions Following the Events in Japan," dated July 12, 2011 (Reference 5.4).

NTTF Recommendation 2.3 (Enclosure 4 to Reference 5.1), as amended by the NRC Staff Requirements Memorandum (SRM) associated with Commission Papers SECY-11-0124 and SECY-11-0137, instructed the NRC staff to issue requests for information to licensees pursuant to 10 CFR 50.54(f). Subsequently, the NRC Staff issued a letter on March 12, 2012 (Reference 5.1) which requested licensees to provide the following information under 10 CFR 50.54(f):

- Perform flood protection walkdowns using an NRC-endorsed walkdown methodology,
- Identify and address plant-specific degraded, nonconforming, or unanalyzed conditions, as well as, cliff-edge effects through the corrective action program, and consider these findings in the Recommendation 2.1 hazard evaluations, as appropriate,
- Identify any other actions taken or planned to further enhance the site flood protection,
- Verify the adequacy of programs, monitoring and maintenance for protection features, and,
- Report to the NRC the results of the walkdowns and corrective actions taken or planned.

In response to the NRC information request, external flooding walkdowns were performed by NSPM following the methodology provided in NEI 12-07, Revision 0-A (Reference 5.2). NSPM reviewed current licensing and design basis documents including flood mitigation procedures to identify site-specific flood protection features and mitigation procedures that are credited for protection from and mitigation of an external flooding event. Installed and temporary flood protection features were included.

The scope of the external flooding walkdowns was established based on the site-specific flood protection features and mitigation procedures credited in the CLB. The walkdowns were performed to verify if permanent Structures, Systems, and Components (SSC), temporary plant equipment and features, and the procedures needed to install and/or operate them during a flood were acceptable and capable of performing their design function as credited in the CLB. The

results of the external flooding walkdowns, including identified deficiencies, observations, and areas that are classified as inaccessible or restricted–access are presented in Section 3.6 of this report. Identified deficiencies are being evaluated in accordance with the MNGP Corrective Action Program (CAP).

3.0 NRC REQUESTED INFORMATION

Appendix D of NEI 12-07 (Reference 5.2) provides additional information on the specific NRC information requested in Enclosure 4 of Reference 5.1. NSPM's responses to the NRC's 10 CFR 50.54(f) information requests can be found below in Sections 3.1 through 3.8. Sections 3.1 through 3.8 provided below are consistent with the NRC requested information 2.a thru 2.h listed in Enclosure 4.

3.1 NRC Request - Design Basis Flood Hazard Level(s)

Describe the design basis flood hazard level(s) for all flood-causing mechanisms, including groundwater ingress.

1. Identify all flood hazards that were evaluated in the site's design basis and the flood level resulting from each. Identify hazards that were screened out.
    i. Note that some flood hazards may be limiting for flood level and some for other considerations such as warning time and dynamic loading.
2. Describe any key assumptions (e.g., all culverts were assumed blocked).
3. Include information on the methodology used in developing the design basis flooding hazard.
4. If differences or contradictions in flood hazard levels were found in design or licensing basis documentation, include a description of the basis for flood level used.

3.1.1 MNGP Response - Design Basis Flood Hazards

Site Description/Topography

The plant is located within the city limits of Monticello, Minnesota on the right (west) bank of the Mississippi River. The topography of the MNGP site is characterized by relatively level bluffs which rise sharply above the river. Three distinct bluffs exist at the plant site at elevations 920, 930, and 940 ft above msl. The finished plant grade is approximately 930 ft msl. The plant grade surrounding Class I and Class II structures housing Class I equipment varies between 935 ft msl and 930 ft msl. The site description and topography is described in detail in the MNGP USAR Section 2.2 (Reference 5.9).

Hydrology

The normal river level at the MNGP site is about 905 ft. msl. At a distance 1.5 miles upstream, the normal river elevation is about 910 ft. msl, and at an equal distance downstream, the river is at 900 ft. msl.

The following flow statistics are estimated for the Mississippi River at the MNGP site:

Average Flow – 4,600 cubic feet per second (cfs)
Minimum Flow - 240 cfs
Maximum Flow - 51,000 cfs

The maximum reported high water level at the MNGP site was about 916 ft msl which was recorded during the spring flood of 1965 with an estimated river flow of 51,000 cfs. The results of flood frequency study for the 1000 year flood estimated a peak stage of 921 ft msl (Section 2.4. of Reference 5.9)

Probable Maximum Flood (PMF)

The predicted flood discharge flow and probable maximum flood (PMF) level at the MNGP site was defined using Department of the Army, Office of the Chief of Engineers, the U.S. Army Corps of Engineers, Engineer Circular No. 1110-2-27, Enclosure 2, "Policies and Procedures Pertaining to Determination of Spillway Capacities and Freeboard Allowances for Dams," dated August 1, 1966 (Reference 5.7). The study results are presented in USAR Appendix G (Reference 5.9).

The probable maximum discharge was determined to be 364,900 cfs and a corresponding peak stage of elevation 939.2 ft msl. The flood would result from meteorological conditions which could occur in the spring and would reach maximum river level in about 12 days. It was estimated the flood stage would remain above elevation 930.0 ft msl for approximately 11 days.

The PMF at the MNGP site was determined by transposing an actual, critical spring storm to the Mississippi River drainage area, and maximizing the precipitation for potential moisture. Potential snow cover and a critical temperature sequence were developed for determining snowmelt contribution to flood runoff. Flood runoff at the plant site was determined by developing unit hydrographs for four sub-basins, applying rainfall and snowmelt excesses to the unit hydrographs and routing the resultant hydrographs for the sub-basins to the project site.

The most critical sequence of events leading to a major flood would be to have an unusually heavy spring snowfall and low temperatures after a period of

intermittent warm spells and sub-freezing temperatures has formed an impervious ground surface and then a period of extremely high temperatures followed by a major storm. The snowmelt and rainfall excesses were then routed to the plant site by computer modeling. A stage discharge rating curve was then constructed. The probable maximum discharge was determined to be 364,900 cfs with a corresponding peak stage elevation of 939.2 ft. msl from the discharge rating curve.

A probable maximum summer storm over the project area was also studied in detail and the resulting flood at the project site determined. Although the summer storm was much larger than the spring storm, the much lower retention rates under ordinary spring conditions, and the snowmelt contribution to runoff, resulted in the spring storm producing the more critical flood.

Flooding due to backwater, usually caused by ice jams, was considered. The most serious flooding throughout the Mississippi River basin has been associated with excessive snowmelt and precipitation (Appendix G, Reference 5.9).

As discussed in Reference 5.8, buildings were analyzed for hydrostatic loading up to elevation 939.2 ft msl.

3.1.2 MNGP Response - Key Assumptions

As discussed in Section 3.1.1 above, the PMF evaluation for the spring storm conservatively maximizes the potential snow cover and precipitation. A limiting temperature sequence that results in an impervious ground surface due to sub-freezing temperatures is assumed. This is followed by extreme high temperatures, and a subsequent major storm. The snowmelt and rainfall maximizes the runoff to the river basin. This sequence of events is not unusual in the area and the maximization of rainfall, snow-cover, and temperature would produce a probable maximum flood.

Additional details regarding key assumptions used in the analyses are described in USAR Appendix G (Reference 5.9).

3.1.3 MNGP Response - Methodology Used to Develop Design Basis Flood Hazard

The predicted flood discharge flow and probable maximum flood level at the MNGP site was defined using Department of the Army, Office of the Chief of Engineers, the U.S. Army Corps of Engineers, Engineer Circular No. 1110-2-27, Enclosure 2, "Policies and Procedures Pertaining to Determination of Spillway Capacities and Freeboard Allowances for Dams," dated August 1, 1966 (Reference 5.7).

The PMF at the MNGP site was determined by transposing an actual critical spring storm to the drainage basin and maximizing the precipitation for potential moisture. Potential snow cover and a critical temperature sequence were developed for determining snowmelt contribution to flood runoff.

The study area was divided into four major sub-basins and synthetic unit hydrographs were developed for each, using Snyder's method, which is derived from the various physical basin characteristics. Unit hydrograph peaks were also increased by 25 percent and basin lag decreased by one-sixth, in accordance with standard Corps of Engineer practice.

Snowmelt and rainfall excesses were applied to unit hydrographs and the resulting hydrographs determined for each sub-basin. Sub-basin hydrographs were then routed to the project site by computer program using the modified Wilson method. Travel times for flood routing were taken from Corps of Engineers recorded travel times for large floods. Base flow was determined from long-term records of stream flow for nearby stations. Base flow was then added to the total of the routed flood hydrographs.

The stage-discharge curve at the MNGP Site was extended above the range of historical experience by means of hydraulic computations based on the river channel downstream. This was done by a series of backwater computations based on a range of discharges. Backwater computations were made using water surface elevations and their corresponding discharges as determined from the rating curve downstream from Monticello. Using the discharges and the water surface elevations determined, a stage discharge curve was constructed.

The analysis results are presented in USAR Appendix G (Reference 5.9).

3.1.4 MNGP Response - Differences or Contradictions in Flood Hazard Levels

A review of documentation found no differences or contradictions in the PMF flood level of 939.2 ft identified in the design and licensing basis documentation.

3.2 NRC Request – Protection and Mitigation Features Considered in Licensing Basis

Describe protection and mitigation features that are considered in the licensing basis evaluation to protect against external ingress of water into SSCs important to safety.

1. Describe the flooding licensing basis including what plant configurations (modes of operation; for example, full power operations, startup,

shutdown, and refueling) were considered. This description should be consistent with the scope of the external flooding walkdowns.

2. Document the flood duration assumed in the CLB. If the CLB does not provide information on the flood duration, this lack of information should be documented in the walkdown report.
3. Describe the flood protection features that are credited in the CLB, such as incorporated, exterior and temporary barriers, time required for credited actions under flood conditions, active flood protection features, procedures, warnings credited for external floods, site drainage plan, etc.
4. Describe weather conditions or flood levels that trigger procedures and associated actions for providing flood protection and mitigation.
5. Describe the adverse weather conditions that were assumed concurrent with flood protection features and associated actions.

3.2.1 MNGP Response - Flooding Licensing Basis

The following is a summary of the MNGP CLB that governs the design, operation and maintenance of plant SSCs for the protection and mitigation from external flooding events.

The CLB, as defined by 10 CFR 54.3, is the set of NRC requirements applicable to a specific plant, plus a licensee's docketed and currently effective written commitments for ensuring compliance with, and operation within, applicable NRC requirements and the plant-specific design basis, including all modifications and additions to such commitments over the life of the facility operating license. It also includes the plant-specific design basis information, defined by 10 CFR 50.2, as documented in the most recent Updated Safety Analysis Report (USAR) as required by 10 CFR 50.71.

The basis for the PMF level of 939.2' msl is discussed in Section 3.1 of this report and is detailed in USAR Section 2.4.1 and Appendix G (Reference 5.9).

Flood Protection requirements necessary to prevent external flooding or flood damage to Class I Structures or Class II structures housing Class I equipment are identified in USAR Section 12.2.1.7.1. For the design flood of 930 ft msl no increase in allowable stress was permitted in the design of buildings to withstand hydrostatic loadings. For the flood stage elevation of 939.2 ft msl, a one-third increase in allowable stress was permitted. Flood protection features include incorporated, exterior and temporary SSCs and applicable procedures that are credited to protect against or mitigate the effects of CLB external floods. The flood protection features have either an active or passive flood protection function. Flood Protection features are discussed in Section 3.2.3 below. The plant flood mitigation procedures are described in Section 3.2.3.2. The PMF

event is applicable to all modes of operation (i.e., power operation, startup, hot shutdown, cold shutdown, and refueling).

Discussion of applicable NRC regulations and docketed correspondence and commitments to the NRC that are included within the MNGP CLB for flood protection are as follows:

3.2.1.1 Principal Design Criteria (PDC)

MNGP was designed before the publishing of the 70 General Design Criteria (GDC) for Nuclear Power Plant Construction Permits proposed by the Atomic Energy Commission (AEC) for public comment in July 1967, and constructed prior to the 1971 publication of the 10 CFR 50, Appendix A, GDC. As such, MNGP was not licensed to 10 CFR Appendix A, GDC.

The MNGP USAR, Section 1.2, lists the PDC for the design, construction and operation of the plant. MNGP USAR Appendix E provides a plant comparative evaluation to the 70 proposed AEC design criteria. It was concluded in the USAR that the plant conforms to the intent of the GDC. A listing of the PDC and AEC GDC (by number and title) pertaining to external flooding is provided below:

PDC 1.2.1.c "General Criteria"

"The design of those components which are important to the safety of the plant includes allowances for the appropriate environmental phenomena at the site. Those components important to safety and required to operate during accident conditions are designed to operate in the post accident environment."

AEC Criterion 2 - Performance Standards (Category A)

"Those systems and components of reactor facilities which are essential to prevention of accidents which could affect the public health and safety or to mitigation to their consequences shall be designed, fabricated, and erected to performance standards that will enable the facility to withstand, without loss of the capability to protect the public, the additional forces that might be imposed by natural phenomena such as earthquakes, tornadoes, flooding conditions, winds, ice, and other local site effects. The design bases so established shall reflect: (a) appropriate consideration of the most severe of these natural phenomena that have been recorded for the site and surrounding area and (b) an appropriate margin for withstanding forces greater than those recorded to reflect uncertainties about the historical data and their suitability as a basis for design."

3.2.1.2 Regulatory Requirements and Licensing Commitments

Licensing Commitments made in docketed licensing correspondence (such as licensee responses to NRC bulletins, License Event Reports, Generic Letters, and Enforcement Actions) were reviewed. One commitment was identified and is listed below:

Letter to NRC dated April 24, 1991 (MNGP LER 90-019-01)

It was identified that Procedure A.6, "Acts of Nature" for external flooding did not contain complete instructions for protecting the Diesel Fuel Oil Pump House, Diesel Fuel Oil Storage Tank, Emergency Diesel Generator Building, Turbine Building, Reactor Building, Radwaste Building, Intake Structure (including access tunnel), Off-gas Stack, Emergency Filtration Train Building, and the Control Building during a PMF. Architect-Engineer Study MNTS-83-048, 82-002-SPEC, "Flood Protection Requirements for Maximum Probable Flood" (Reference 5.8), was not complete for these structures. Licensee Event Report (LER) 90-019-01 was submitted to the NRC in Letter dated April 24, 1991 (Reference 5.10). NSPM committed to revise Procedure A.6 to address the concerns identified in the LER.

3.2.2 MNGP Response - Flood Duration

The flood would result from meteorological conditions which could occur in the spring and would reach maximum river level in about 12 days. It was estimated the flood stage would remain above elevation 930.0 ft msl for approximately 11 days (Refer to USAR Appendix G).

3.2.3 MNGP Response - Flood Protection Features

Flood protection features utilized at MNGP in the event of a PMF include both incorporated (installed) and temporary active and passive barriers. MNGP does not rely upon any flood protection features external to the immediate plant area as part of the current licensing basis that protect safety related systems, structures and components from inundation and static/dynamic effects of external floods.

Incorporated engineered passive or active flood protection features are features that are permanently installed in the plant that protect safety related systems, structures and components from inundation and static/dynamic effects of external flooding. Examples include external walls, penetration seals, and flood detection instrumentation, etc. that are permanently incorporated into a plant structure.

Temporary passive or active flood protection features at MNGP include portable pumps, sandbags, plastic sheeting, steel plates, levees, etc. that similarly protect safety related systems, structures and components from the effects of external

flooding. These features are temporary in nature, i.e., they must be installed prior to design basis external flood levels attaining specific levels.

3.2.3.1 Incorporated Flood Protection Features

All Class I and Class II structures have been designed for a high water level of 930 ft msl. The flood protection requirements necessary to prevent flooding or flood damage to Class I structures and Class II structures housing Class I equipment in the event of the PMF were identified in Architect-Engineer Study MNTS -83-048, 82-002-SPEC, "Flood Protection Requirements for Maximum Probable Flood" (Reference 5.8).

The Architect-Engineer study recorded openings in buildings that are located below 939.2 ft. msl, and recommended modifications and/or methods for securing openings, as required. The resulting hydrostatic loading on the structures and buoyancy affects were also considered. Additional buildings that require protection from external flooding were identified following completion of the Architect-Engineer study and are listed below.

The following Class I and II structures are protected from flooding up to 939.2 ft. msl:

1. Reactor Building (including High Pressure Coolant Injection (HPCI) structure)
2. Turbine Building
3. Intake Structure (including access tunnel)
4. Off-gas Stack and Compressed Gas Storage Building
5. Radwaste Building
6. Diesel Generator Building
7. Plant Control and Cable Spreading Structure
8. Emergency Filtration Train (EFT) Building
9. Diesel Fuel Oil Pump House
10. Diesel Oil Storage Tank

MNGP USAR Section 12.2.1.7.1 summarizes the results of the external flooding study. For the design flood of 930 ft msl no increase in allowable stress was permitted in the design of buildings to withstand hydrostatic loadings. For the flood stage 939.2 ft msl, 1/3 increase in allowable stress was permitted. All structures with the exception of the Diesel Generator Building are sufficiently heavy to resist buoyancy, and the stresses do not exceed the allowable defined above. Flood protection for the Diesel Generator Building is provided by either

erecting a flood barrier around the structure or by preventing buckling of the building floor slab.

Diesel Fuel Oil Storage Tank T-44 has been evaluated for hydrostatic forces with the flood level up to 930 ft. msl. Should flood levels be predicted to exceed 930 ft msl, the tank will be protected by a temporary ring levee in accordance with the plants flooding Procedure A.6, "Acts of Nature."

The process for plant modifications requires a review of structural openings below the 939.2 ft elevation to ensure external flooding protection is not affected.

3.2.3.2 MNGP Response - Flood Mitigation Procedures

MNGP Procedure A.6, "Acts of Nature," (Section 5.0 - External Flooding) outlines actions to be taken in the event flood waters are predicted to exceed elevation 918 ft. Action levels progress to 919 ft, 921 ft, 930 ft, 934 ft, and 938 ft depending on flood level predictions.

Should river level exceed 918 ft msl, an Unusual Event is declared. Should river level reach 921 ft msl, an Alert is declared and an orderly plant shutdown is commenced to place the reactor in a cold shutdown condition.

3.2.4 MNGP Response - Weather Conditions That Trigger Protective Actions

In accordance with MNGP Procedure A.6, when flood predictions indicate the river level has a potential to reach 918 ft, the steps in Procedure A.6 are implemented.

The most critical sequence of events leading to a major flood would be an unusually heavy spring snowfall and low temperatures after a period of intermittent warm spells and sub-freezing temperatures has formed an impervious ground surface and then a period of extremely high temperatures followed by a major storm.

3.2.5 MNGP Response - Adverse Weather Conditions Assumed with Protective Features and Actions

The current licensing basis does not describe adverse weather conditions that are assumed concurrent with flood protection features and associated actions. Section 5.1, Precautions, of Procedure A.6, identifies that rapidly flowing floodwater and very cold floodwater temperature may be possible.

3.3 NRC Request – Warning Systems to Detect the Presence of Water

Describe any warning systems to detect the presence of water in rooms important to safety.

1. Describe the room water level warning systems credited for their flood protection function in the plant's external flooding licensing basis.

Note that systems that detect internal flooding sources are not part of the scope of the walkdown.

3.3.1 MNGP Response - Water Level Warning Systems Credited

Although not credited as part of the CLB for external flooding, level sensors and pumps associated with the following annunciators were included within the scope of the external flooding walkdown report. The annunciators may indicate a flooding condition exists in rooms important to safety:

- 101-A-11 (HOTWELL AREA FLOODING)
- 101-A-9 (CW PUMP PIT FLOODING)
- 84A-A-1 (RADWASTE SHIPPING BUILDING SUMP HI LEVEL)
- 84A-A-2 (TURB BLD EQUIP DRAIN SUMP S-44 HI LEVEL)
- 84A-A-7 (TURB BLDG NORM WASTE SUMP S-45 HI LEVEL)
- 84A-A-10 (RADWASTE BLD DRN SUMP S-39 HI LEVEL)
- 84A-A-12 (TURB BLDG FLOOR DRAIN SUMP S-40 HI LEVEL)
- 84A-A-13 (LABORATORY DRAIN SUMP S-35 HI LEVEL)
- 84A-A-14 (CONVEYOR FLOOR DRAIN SUMP S-41 HI LEVEL)
- 5-A-49 (RADWASTE TROUBLE)
- 102-A-5 (DSCH STRUCTURE SUMP HI-HI LEVEL)

3.4 NRC Request – Effectiveness of Flood Protection Features

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 (Reference 5.1).

1. The purpose of the 2.3 walkdowns is to verify the conformance with the CLB; the adequacy of the CLB will be addressed as part of the NTTF Recommendation 2.1 flood reevaluations if an integrated assessment is required.

2. The acceptance criteria for the walkdowns are described in Reference 5.2. This approach is consistent with requested information item 1.h of the 50.54(f) letter. Discuss how the plant implemented this approach.
3. This discussion should include an evaluation of the overall effectiveness of the plant's flood protection features to perform their credited functions during a variety of site conditions (as defined previously), as determined by the results of the walkdowns (the features are available, functional, and implementable). The CAP process will determine which of the walkdown observations are deficiencies and what actions were taken or planned to address them. Questions such as the following should be evaluated for a variety of site conditions:
    i. Is the barrier system functional?
    ii. Are operator actions feasible?
4. Describe how other existing plant equipment, structures, and procedures might mitigate the effects of an external flood under a variety of plant configurations.

3.4.1 MNGP Response - Purpose of the Walkdowns

The purpose of the external flooding walkdown was to verify the conformance of external flood features with the CLB.

In addition to the visual component of the flood feature walkdown, a review of the preventative maintenance records was performed, where appropriate. The purpose of the review was to validate that the credited features were contained in a program that would ensure their continued conformance with the CLB.

Procedures which implement flood protection features were reviewed to ensure they are executable, achievable, properly staffed, and required materials are available.

3.4.2 MNGP Response – Acceptance Criteria Development

NSPM developed acceptance criteria based on Section 6 and Appendix A of NEI 12-07 (Reference 5.2). This approach is consistent with the Requested Information Item 1.h from Enclosure 4 of the 10 CFR 50.54(f) letter (Reference 5.1).

The acceptance criteria for each flood feature were annotated in Part B of the MNGP Walkdown Record Forms, where applicable.

3.4.3 MNGP Response – Evaluation of the Overall Effectiveness of Flood Protection Features and Operator Response

The results of the external flooding walkdowns show that the flood protection features and operator responses are effective overall. Deficiencies were identified during the walkdowns but do not impact the overall effectiveness of the external flooding program.

Section 3.6 of this report provides a detailed discussion of the results from the external flooding walkdowns.

3.4.4 MNGP Response – Other Existing Plant Equipment, Structures, and Procedures that Might Mitigate the Effects of an External Flood under a Variety of Plant Configurations

The current licensing basis for protection and mitigation of an external flooding event, including plant equipment, structures, and procedures, is discussed in Section 3.2 of this report. No other existing plant equipment, structures, or procedures were identified as being able to mitigate an external flooding event that is not already credited in the flooding CLB.

A review of the preventative maintenance records was performed. The purpose of the review was to validate that the credited features were contained in a program that would ensure their continued conformance with the CLB. The work order planning process ensures that any scheduled maintenance activities are reviewed by plant engineering if the job scope of the work may impact the site's flooding analysis. Therefore, maintenance activities would not degrade the capability of flood protection features to perform their credited function.

3.5 NRC Request – Implementation of the Walkdown Process

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 (Reference 5.1), including actions taken in response to the peer review.

1. Confirm that guidance was followed (and options selected when available within the guidance) and any exceptions taken to the guidance.
2. Describe how the walkdown teams were organized (e.g., number of members, general background, etc.).
3. Describe the approach used to comply with guidance on walkdown team selection and training.

3.5.1 MNGP Response – Guidance for Walkdown Process

The NEI 12-07 guidance was followed for the external flooding walkdown scoping, execution, and documentation. No exceptions were taken to the guidance.

A walk-through of Section 5.0 of Procedure A.6, "Acts of Nature", was performed as part of the external flooding walkdown to ensure site preparation and response for the licensing basis flood event were adequate and could be completed within acceptable time under the conditions expected. Additional details are discussed in Section 3.6.1 of this report.

3.5.2 MNGP Response – Walkdown Team Organization

The MNGP flood walkdown team was composed of three (3) qualified individuals of various technical disciplines. The walkdown team members represented discipline areas with complimentary skill sets that included field/inspection experience, design engineering, knowledge of plant flood protection features, and knowledge of the current MNGP external flooding licensing basis.

3.5.3 MNGP Response – Walkdown Team Selection and Training

In accordance with Section 5.3 of NEI 12-07 (Reference 5.2), multiple skill sets were available to participate in the evaluation of a given flood mitigation feature depending on the intended credited function. Each flood mitigation feature was evaluated by a minimum of two individuals from the team.

The flood walkdown team was made familiar with the information required to respond to the NRC's 10 CFR 50.54(f) request for information (Enclosure 4 of Reference 5.1). The walkdown team members completed the training developed by the NEI Fukushima Flooding Task Force and available through the INPO NANTEL website (Appendix C of Reference 5.2). All training records for flood feature walkdown team participants are documented in the MNGP training records database.

3.6 NRC Request – Results of Flooding Walkdown

Summarize results of the walkdown including key findings and identified degraded, non-conforming, or unanalyzed conditions. Include a detailed description of the actions taken or planned to address these conditions using the guidance in Regulatory Issues Summary 2005-20, Rev 1, Revision to NRC Inspection Manual Part 9900 Technical Guidance, "Operability Conditions Adverse to Quality or Safety," including entering the condition in the corrective action program.

1. Description of all deficiencies as determined by the CAP. Observations that are entered into the CAP and not dispositioned as deficiencies do not need to be reported.
2. Description of any observations reported in the CAP that were not dispositioned at the time of the report.
3. Describe actions that were taken or are planned to address the deficiencies using the guidance in Regulatory Issues Summary 2005-20 Revision 1.
4. Flood protection features that could not be inspected, including:
   i. Features affected by restricted access:
      - Justification for delay
      - Schedule
      - Any necessary special procedures
   ii. Inaccessible features:
      - Basis for reasonable assurance that the feature is available and will perform its credited function or an assessment of the impact of non-performance of the function.
      - If more than one "inaccessible" flood protection feature with potential loss of function is reported, then an evaluation of the aggregate effect flood protection features must be provided.

3.6.1 MNGP Response - Results of Flooding Walkdown

Summary of Findings

The plant flood protection features were found to be as described in the CLB (available, functional, and maintained), with the exceptions that are considered deficiencies and restricted access. Deficiencies are described in Table 3.6-1, "Deficiency List." Observations identified during the external flooding walkdowns are listed in Table 3.6-2, "Observation List." Table 3.6-3, "Restricted Access," provides a list of the restricted access features as well as actions to inspect each feature. There were no flood protection features identified as inaccessible during the external flooding walkdowns. Deficiencies and Restricted Access features notwithstanding, the flood protection features in aggregate would perform their design function as credited in the CLB. Eighty-one (81) walkdown record forms were created, following the NEI 12-07 guidance, of the specific features included within the scope of the walkdown record forms.

- Eighty (80) walkdown record forms are for physical flood features.
    - Twenty-two (22) walkdown record forms contain specific areas or components that were determined to be subject to restricted access and were entered into the CAP or work management system for future disposition and scheduling (Refer to Table 3.6-3).
    - Eight (8) action requests were initiated and then evaluated using the NEI 12-07 guidance to determine if a deficiency existed. Two (2) deficiencies were identified (Refer to Table 3.6-1) from this review. The six action requests which were not identified as deficiencies are listed in Table 3.6-2.
    - Five (5) features credited in the CLB were included in a preventative maintenance or surveillance program. A maintenance program review was performed and determined that these flood protection features are functional and maintained. No deficiencies were identified.
    - Although not credited as part of the external flooding CLB, 22 walkdown record forms were completed for active equipment which included level sensors and pumps located in plant areas that provide indication of water intrusion from internal or external sources. A review of maintenance records was performed and determined that these flood protection features are functional and maintained. No adverse conditions were identified.

- One (1) walkdown record form was completed for procedures. Section 5 of the MNGP Procedure A.6, "Acts of Nature," outlines actions to be taken in the event flood waters are predicted to exceed elevation 918 ft. Specific aspects of Procedure A.6 related to protection of SSCs important to safety were evaluated using a methodology consistent with that described in the NEI 12-07 guidance.
    - Walkthroughs of actions in Procedure A.6, that are related to protection of SSCs important to safety, consisted of reviewing the time required to complete the actions, personnel requirements and availability, resource requirements and availability, and any impacts due to adverse conditions (either from the event it is intended to mitigate or other adverse conditions that could reasonably be expected to simultaneously occur).
    - Steps in Procedure A.6 assigned to departments, such as Maintenance or Plant Operations, are within normal training, experience and skill of the craft, and no specialized training is considered necessary.
    - Performance of the procedure walkthroughs resulted in 23 suggested enhancements to improve the clarity in the procedure, increase overall preparedness, and streamline actions needed to

protect SSCs important to safety. These enhancements are recorded in Table 3.6-2 as an observation.

- Two (2) deficiencies were identified by the walkthroughs and are listed in Table 3.6-1 of this report.

3.6.1.1 Deficiencies

Refer to Table 3.6-1, "Deficiency List," for the identified deficiencies, including a brief description of the feature, the reported degraded condition, and actions assigned with the anticipated completion date.

3.6.1.2 Observations

In accordance with the NEI 12-07 guidance, NSPM has dispositioned the observations identified during the external flooding walkdowns. Only four (4) observations were determined to be deficiencies. Six (6) observations entered into site action requests were determined to be enhancements to the flooding protection features or strategies. Table 3.6-2, "Observation List," lists these observations, including a brief description of the flood protection feature, comments on the observation, and an action request number.

3.6.1.3 Describe Actions to address the Deficiencies

The actions planned to address the deficiencies are described in Table 3.6-1, "Deficiency List." NSPM will complete resolution of deficiencies by February 15, 2013.

3.6.1.4 Restricted and Inaccessible Flood Protection Features

Table 3.6-3, "Restricted Access" lists those items that were not inspected during the course of the MNGP external flooding Walkdown including the basis for delay. No special procedures are required for inspection of the restricted-access features. There were no flood protection features identified as inaccessible during the external flooding walkdowns.

The anticipated completion date for inspection of the restricted access items is October 31, 2013.

3.7 NRC Request – Available Physical Margin (APM)

Report that APM has been collected and documented in the Walkdown Record Form.

3.7.1 MNGP Response - Documentation of Available Physical Margin

The APM has been estimated and documented, as applicable, in the walkdown record forms in accordance with NEI 12-07. This information will be used in the flood hazard reevaluations performed in response to NTTF Recommendation 2.1: Flooding of the NRC's 10 CFR 50.54(f) letter (Reference 5.1).

3.8 NRC Request – Other Planned/Newly Installed Flood Protection Features or Mitigation Measures

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. Describe changes determined to be necessary by the flood walkdowns and whether they have been completed or their schedule for completion.

3.8.1 MNGP Response - Planned/Newly Installed Flood Protection Features or Mitigation Measures

A number of observations were identified which could improve the clarity in the A.6 procedure, increase overall preparedness, and streamline actions already contained within the A.6 Procedure. These observations are contained in Table 3.6-2. Additionally, changes will be made as part of the resolution of the deficiencies identified in Table 3.6-1. However, none of these changes constitute new flood protection or mitigation features. NSPM has not installed or does not plan to install any new flood protection features, or implement any new flood mitigation features.

4.0 CONCLUSIONS

The identified plant flood-protection physical features were found to be as described in the CLB (available, functional, and maintained) with those exceptions as described in Table 3.6-1, "Deficiency List." The results of the external flooding walkdown show that the flood protection features and operator responses are effective overall. Deficiencies were identified during the walkdowns but do not impact the overall effectiveness of the external flooding walkdown.

4.1 Deficiencies

A total of four (4) deficiencies were identified as a result of the walkthroughs and are summarized in Table 3.6-1, "Deficiency List". The deficiencies were entered into the CAP.

4.2 Observations

Table 3.6-2, "Observation List," lists six (6) observations identified during the external flooding walkdowns as enhancements to the external flooding program.

4.3 Restricted-Access Flood Features

Table 3.6-3, "Restricted Access," lists those flood features that were deemed restricted access and require future scheduling and disposition. Restricted access features have been entered into the CAP or work management system for tracking. All restricted-access features will be tracked by their respective work orders and visually inspected by October 31, 2013.

4.4 Inaccessible Flood Features

There was no flood protection features determined to be inaccessible during the external flooding walkdowns.

5.0 REFERENCES

5.1 NRC Letter to Licensees, dated March 12, 2012, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3 of the Near Term Task Force Review of Insights from the Fukushima Daiichi Accident" (ADAMS Accession No. ML12053A340).

5.2 NEI 12-07, Revision 0-A, "Guidelines for Performing Verification Walkdowns of Plant Flood Protection Features," dated May 2012 (ADAMS Accession No. ML12173A215).

5.3 NRC Letter to Nuclear Energy Institute (NEI) dated May 31, 2012, "Endorsement of Nuclear Energy Institute (NEI) 12-07, "Guidelines for Performing Verification Walkdowns of Plant Flood Protection Features," (ADAMS Accession No. ML12144A142).

5.4 SECY-11-0093, "Near-Term Report and Recommendations for Agency Actions Following the Events in Japan," dated July 12, 2011 (ADAMS Accession No. ML111861807).

5.5 SRM SECY 11-0124, "Recommended Action to be taken without Delay from the Near-Term Task Force Report," dated October 18, 2011 (ADAMs Accession No. ML112911571).

5.6 SRM SECY 11-0137, "Prioritization of Recommended Actions to Be Taken in Response to Fukushima Lessons Learned," dated December 15, 2011 (ADAMS Accession No. ML113490055).

5.7 Department of the Army, Office of the Chief of Engineers, the U.S. Army Corps of Engineers, Engineer Circular No. 1110-2-27, Enclosure 2, "Policies and Procedures Pertaining to Determination of Spillway Capacities and Freeboard Allowances for Dams," dated August 1, 1966.

5.8 Architect-Engineer Study MNTS -83-048, 82-002-SPEC, "Flood Protection Requirements for Maximum Probable Flood."

5.9 Monticello Nuclear Generating Plant, Updated Safety Analysis Report (USAR Revision 28).

5.10 NSPM Letter to NRC, "Potential Loss of Fuel Oil Transfer Capability during External Flooding Due to Procedural Inadequacy," (LER 90-019-01) dated April 24, 1991.

Table 3.6-1: Deficiency List

No.	Description of Feature	Condition	Actions	CAP Action Request No.	Anticipated Completion Date
1	Penetrations in Plant Administration Building (PAB) 939 Telephone Room	Provides a path for flood water to enter the PAB Control Building.	Revise Procedure A.6 to remove pathway.	01358177	February 15, 2013
2	Windows in PAB Lunchroom	Provides a potential path for flood water to enter the PAB Control Building.	Actions to mitigate effects from flood water could include, but are not limited to 1) replacing windows or 2) revising Procedure A.6 to include sandbag berm in PAB Control Building.	01358177	February 15, 2013
3	Conflict with steps in Procedure A.6 to protect tank T-44	Current step 5.2.11.B is not in agreement with step 5.2.11.H regarding protection of tank T-44 if the ring levee option is not chosen.	Revise Procedure A.6 to clarify protection of tank T-44.	01358177	February 15, 2013
4	Seal gap between the Intake Structure and access tunnel or between the tunnel and Turbine Building (Procedure A.6, Step 5.2.9.I)	Successful completion of step 5.2.9.I may not be assured as currently written.	Revise Procedure A.6 to provide improved method of sealing the gap.	01353929	February 15, 2013

Table 3.6-2: Observation List

Flood Protection Feature	Observation	Action Request No.	Comments
Intake Structure	Penetrations were found in the Intake Structure that could allow water to enter the Intake structure during a PMF.	01353461, 01354075	Procedure A.6 requires plugging open penetrations when a PMF is predicted.
N/A	USAR section 12.2.1.7.1 needs clarification.	01354211	USAR will be revised and actions taken, if appropriate.
Off Gas Stack	Corroded electrical conduit.	01356612	No safety related cables are located in this conduit.
Reactor building, Turbine building	Flooding Procedure A.6 does not adequately identify when construction should begin on a temporary berm.	01358879	Flooding procedure should be enhanced to clarify temporary berm instruction.
Multiple	Improvement opportunities identified in the Procedure A.6 walk through. 23 observations are to be evaluated for improvements to NSPM's response to a PMF.	01359435	The improvements will be evaluated and actions taken, if appropriate. A procedure change request has been initiated to incorporate identified improvements.
Multiple	Open penetrations were found during the flooding walkdowns.	01353659	Procedure A.6 requires plugging open penetrations when a PMF is predicted. Recommend that a Flooding Penetration Database be created, and referenced in Procedure A.6.

Table 3.6-3: Restricted Access

No.	Location	Description/Justification	Work Order No.	Remarks
1	Intake Structure – Elev. 919'	Inspect Conduit Penetration for Seal / Install Scaffolding.	466385, Task 01	May Require Opening Junction Box Other Side of Wall. See CAP 01354075.
2	Intake Structure – Elev. 919'	Remove Insulation / Verify Floor Penetration Sealed.	466385, Task 02	Three Sodium Hypochlorite Lines. See CAP 01354075.
3	Intake Structure Elev. 916' – Alcove Area	Verify Conduit Penetration is Sealed / Install Scaffolding.	466385, Task 12	Open Ended Conduit. See CAP 1354075.
4	RCIC Room – North Wall (Reactor Building Elev. 896')	Open Junction Boxes North Wall / Inspect Penetration.	466385, Task 04	Verify if Penetrations Exist at Junction Box and Properly Sealed. See CAP 01354536.
5	HPCI Room - West Wall (Reactor Building Elev. 896')	Inspect Penetrations for Seals / Install Scaffolding.	466385, Task 05	Three Piping Penetrations to be Inspected. See CAP 01354530.
6	HPCI Room - West Wall (Reactor Building Elev. 896')	Inspect Penetrations for Seals / Install Scaffolding.	466385, Task 06	Two Piping Penetrations to be Inspected. See CAP 01354530.
7	Reactor Building Tank Room – North Wall (Reactor Building Elev. 896')	Open Junction Boxes North Wall / Install Scaffolding & Inspect Penetrations.	466385, Task 15	Verify if Penetrations Exist at Junction Box and are Properly Sealed. See CAP 01354534.
8	11 & 12 Emergency Diesel Generator Room – Elev. 931'	Open Floor Trenches / Perform Inspections. Open Junction Box / Inspect Penetration.	466385, Task 07	Remove Trench Covers.

Table 3.6-3: Restricted Access

No.	Location	Description/Justification	Work Order No.	Remarks
9	Turbine Building Elev. 931' - North Wall	Insulation conceals pipe penetration seal.	466385, Task 08	Remove Metal Jacketed Insulation / Inspect Penetration.
10	Lower 4 KV Room Entryway – North Wall (Turbine Building Elev. 911')	Drain Pipe Penetration. Verify Piping Penetration Sealed.	466385, Task 13	Verify Seal on Outside of Wall.
11	MVP Room – Northeast Corner (Turbine Building Elev. 908')	Unable to directly view penetrations.	466385, Task 09	Identify Unknown Penetration. Verify Piping Penetration, Unknown Penetration, and Conduit Penetration are Sealed / Install Scaffolding.
12	Lower 4 KV Room – North Wall (Turbine Building Elev. 911')	Open Junction Boxes. Verify Conduit Penetrations are Sealed / Install Scaffolding	466385, Task 14	Two Conduits Located Behind Raceway. Three Junction Boxes (J-681, J-317, J-101) with Conduit Penetrations. Two Conduits Into Junction Box J-102. Three Conduit Penetrations (Elev. 929').

Table 3.6-3: Restricted Access

No.	Location	Description/Justification	Work Order No.	Remarks
13	Lower 4 KV Room – West Wall (Turbine Building Elev. 911')	Open Junction Boxes. Verify Conduit Penetrations are Sealed / Install Scaffolding.	466385, Task 16	Verify if Penetration Exists and is Properly Sealed for Junction Box NJ5220. One conduit Into Junction Box J-313. Two Conduits Into Junction Box J-289. Two Conduits Into Junction Box J-312. Verify Obstructed Conduit Rout. If Penetration Exists, Verify Seal.
14	Turbine Building Elev. 911' - East Wall	Inspect Piping Penetrations for Seals / Grout.	466385, Task 10	Remove Visual Obstruction. Complete Inspection.
15	Emergency Filtration Train (EFT) Elev 932' – West Wall	Open Junction Boxes. Verify Conduit Penetrations are Sealed.	466385, Task 17	Verify Junction Box (2J-4001, 2J-4002, 2J-6003) Conduit Penetrations are Sealed.
16	Office & Control Building Elev. 928' (125 V Battery Room)	Open Junction Boxes. Verify Conduit Penetrations are Sealed.	466385, Task 18	Verify Junction Box (1J-3121 and 1J-3225 Conduit Penetrations are Sealed.
17	Office & Control Building Elev. 939'	Door Opening Replaced with Wall. Covered with Sheetrock. Verify Wall is In-filled with Concrete/Sealed.	466385, Task 19	Verify Bottom 2 Feet of Wall is Properly Sealed.

Table 3.6-3: Restricted Access

No.	Location	Description/Justification	Work Order No.	Remarks
18	Intake Structure Tunnel Extension Elev. 916' – West Wall	Conduit Penetrations / Install Scaffolding & Verify Conduit Penetrations Sealed.	466385, Task 11	Install cap on conduit as needed.
19	Intake Structure Elev. 916' (East Wall Tunnel Extension)	Inspect Open Conduit Penetration. Verify seal.	466385, Task 27	Conduit does not correspond to any known equipment.
20	Reactor Building Elev. 935' - Steam Chase	Complete Inspection / Locked High Radiation Area	466385, Task 26	None.
21	Condenser Room (Turbine Building Elev. 911')	Complete Inspection / Locked High Radiation Area	466385, Task 20	None.
22	Condensate Resin Receiver Tank Room (Turbine Building Elev. 908')	Complete Inspection / Locked High Radiation Area	466385, Task 21	None.
23	Steam Jet Air Ejector Room (Turbine Building Elev. 911')	Complete Inspection / Locked High Radiation Area	466385, Task 22	None.
24	Condensate Demineralizer Area (Turbine Building Elev. 937')	Complete Inspection / Locked High Radiation Area	466385, Task 23	None.
25	Compressed Gas Storage Building	Complete Inspection / Locked High Radiation Area	466385, Task 25	None.
26	Diesel Fuel Oil Storage Tank (Elev. 930')	Complete Inspection / Confined Space	466385, Task 24	None.

Table 3.6-3: Restricted Access

No.	Location	Description/Justification	Work Order No.	Remarks
27	Office and Control Building (Elev. 928')	Verify Penetrations are Sealed / Install Scaffolding.	466385, Task 29	None.
28	North Wall (Turbine Building Elev. 911')	Verify Penetrations are Sealed / Install Scaffolding.	466385, Task 30	None.