Enclosure 1 – Non-Proprietary version of Blue Energy White Paper BE-IMSWP-02-NP, "Blue Energy Integrated Monopile System," Revision 0

Blue Energy White Paper

Blue Energy Integrated Monopile System

Document Number:	BE-IMSWP-02-NP	Revision:	0
Document Title:	Blue Energy Integrated Monopile System		
Effective Date:	06/01/2025		

	Name / Title	Signature	Date
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RECORD OF REVISION PAGE

Revision	Approval Date	Change Description	Page(s)	Effective Date
0	05.30.2025	Initial Release	ALL	06.01.2025

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Revision Summary

Revision Number	Effective Date	Description of Change
0	5-1-2025	Initial Issue

Table of Contents

Executive Summary

This white paper presents a summary of the preliminary requirements for the Blue Energy Integrated Monopile System™ (IMS) related to its design basis and safety criteria. The IMS is a large, cylindrical structure that is similar to a shield building. It consists of an **[[** [redacted] **]]**[bde]. The Blue Energy plant will not have a large reactor building or containment, and instead the IMS will serve as the structure that contains many systems, and components. The IMS will include SSCs such as the **[** [redacted] **]**[bde].

1.0 Introduction

1.1 Purpose

The purpose of this white paper is to present the preliminary safety criteria, and design basis, of Blue Energy's power plant facility. The information contained in this white paper is based on preliminary design information and might evolve as plant design progresses. Blue Energy does not request the review or approval of specific features described in this white paper and does not provide regulatory commitments as part of this white paper.

The Blue Energy plant design locates many important structures, systems, and components (SSCs) **[[ ]]**[bde] structure called the Integrated Monopile System (IMS). The IMS is comprised of a **[[ ]]**[bde].

A high-level overview of the Blue Energy IMS approach to development of design requirements, compliance with regulations, and acceptance criteria is provided within.

The Blue Energy power plant design will incorporate a **[[ ]]**[abcde].

Power plant production will use a simplified power conversion system using a turbine-generator set, a standard condenser and cooling tower arrangement, and dedicated feedwater system located **[[ ]]**[be].

[[**]]**[1e].

Portions of the IMS are **[[** **]]**[abe], environmental conditions, natural phenomena, postulated design basis accidents, and other design basis security threats. The IMS also provides radiation protection to plant operation and maintenance personnel. Although **[[** **]]**[abe].

The proposed design will also include monitoring to **[** **]]**[e] and methodology used to analyze and design the Blue Energy IMS.

The information provided in this white paper is preliminary. Additional design decisions will be needed to reach a level of information consistent with a topical report or Preliminary Safety Analysis Report. This white paper is intended to provide the NRC staff an overview of the IMS as it is unique to Blue Energy's Plant concept. Future regulatory submittals will contain additional details for portions of the IMS to support NRC review and approval of certain design features. Blue Energy requests feedback on the preliminary design features described in this white paper but does not request review and approval of any IMS features at this time.

1.2 Scope

The scope of this report includes:

- A high level regulatory evaluation and a description of Blue Energy's intended compliance with relevant NRC requirements.
- A high level regulatory basis specific for the approaches that will implement the design, construction and analyses of the Blue Energy IMS.
- Overall Safety Design Criteria, and additional guidelines for the analysis and design of the IMS, including the development of site-specific geotechnical and seismic design parameters.
    - The Blue Energy design approach to site-specific seismic and geotechnical design parameters at the Blue Energy candidate site.
    - The Blue Energy design approach for addressing Seismic II/I analyses for interactions between the **[[** **]]**[bde].

[1] **[[** **]]**[e].

- Overall Design Basis requirements, acceptance criteria, and additional guidelines for the evaluation of potential hazards.
    - Discussion of **[** [redacted] **]**[abe].
    - Discussion of **[[** [redacted] **]]**[abe].

2.0 Regulatory Basis for Blue Energy IMS Design

This section outlines the basis for Blue Energy design's approach for complying with regulations and conforming to regulatory guidance that will be referenced during future licensing activities and described in detail in Blue Energy's PSAR that will be submitted as part of a construction permit application.

The Blue Energy methodologies and approaches will meet 10 CFR 50, Appendix A, General Design Criteria (GDC). The approaches presented herein also meet the intent of NUREG-0800 "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition" for large light water reactors and other NRC guidance while considering specific areas of concern identified in NUREG/CR-7193, "Evaluations of NRC Seismic-structural Regulations and Regulatory Guidance, and Simulation-Evaluation Tools for Applicability to Small Modular Reactors (SMRs)," for the design of deeply embedded SMRs.

2.1 10 CFR 50.65, Maintenance Rule

10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," requires monitoring of the performance or condition of Structures, Systems, and Components (SSCs) against licensee-established goals, in a manner sufficient to minimize challenges to safety systems and help assure proper plant maintenance and enhance safety.

Blue Energy will establish programs consistent with the Maintenance Rule to ensure the IMS structures can fulfill their intended functions throughout their design lives. Details about Maintenance Rule compliance will be submitted in a future regulatory submittal.

2.2 10 CFR 50.150 Aircraft Impact Assessment

IMS Compliance with 10 CFR 50.150 is discussed in a separate Blue Energy topical report. This assessment is outside the scope of this white paper.

2.3 10 CFR 50.55a(h)

10 CFR 50.55a(h) requires safety system equipment to be designed to meet its functional performance requirements, including during safe-shutdown earthquakes.

2.4 10 CFR Appendix-A-to-Part-100 iv.(c)

10 CFR Part 100, Appendix A requires investigation of seismically induced floods and water waves for coastal sites. Because the IMS is **[[ ]]**[be], it is designed to meet the criteria of 10 CFR 100 Appendix A.

2.5 GDC 1

The IMS is designed, fabricated, erected, and tested to quality standards commensurate with the safety function of the IMS under the Blue Energy QA program.

2.6 GDC 2

The IMS is designed to withstand natural phenomena such as wind, tornadoes, hurricanes, floods, and earthquakes, including the appropriate load combinations. In addition to these phenomena, the IMS design also considers **[ ]**[e].

Specific structural design and load combinations for the IMS will be provided in a future licensing submittal. In addition, a future licensing submittal will demonstrate the ability of the IMS to withstand other natural phenomena.

2.7 GDC 4

The IMS is designed to be protected against dynamic effects including missiles, pipe whip, and discharging fluids from events and conditions outside the IMS. The IMS design also considers the ability of **[[ ]]**[abe].

2.8 Appendix B

Blue Energy topical report BE-QAPD-001, “Quality Assurance Program Description,” provides details about how activities affecting quality comply with 10 CFR 50, Appendix B. This topical report is under NRC staff review. Design, fabrication, erection, and testing of the IMS is performed consistent with the Blue Energy QAP.

2.9 Appendix S

The IMS is designed to withstand the safe shutdown earthquake (SSE) based on site seismological characteristics.

Structural design and load combinations for the IMS will be provided in a future licensing submittal.

2.10 SRP 3.5.3

This section provides NRC staff review guidance for Seismic Category I structures to withstand missile impact, consistent with GDCs 2 and 4. In addition to the effect of externally generated missiles, the IMS design considers effects of **[[** **]]**[e].

The IMS design also credits **[[** **]]**[abe].

A future licensing submittal will describe how the IMS design is able to withstand missile impact.

2.11 SRP 3.8.4

This section provides NRC staff review guidance for Seismic Category I structures other than containment. This includes shield buildings, which perform a similar function as the IMS.

Blue Energy is evaluating NRC-endorsed standards such as American National Standards Institute (ANSI)/American Institute of Steel Construction (AISC) N-690, “Specification for Safety-Related Steel Structures for Nuclear Facilities,” and American Concrete Institute 349, “Code Requirements for Nuclear Safety-Related Concrete Structures and Commentary,” as the construction codes for portions of the IMS to determine their applicability. A future licensing submittal will describe how the IMS conforms to codes, standards, specifications, regulatory guides and other industry standards. The future submittal will also describe any departures from NRC guidance.

2.12 SRP 3.8.5

This section provides NRC staff review guidance for foundations of Seismic Category I structures. The IMS includes a **[[** **]]**[abe].

Blue Energy is evaluating use of ASIC N-690 and ACI 349 for their applicability to different components and substructures of the IMS.

A future licensing submittal will describe how the IMS conforms to codes, standards, specifications, regulatory guides and other industry standards. The future submittal will also describe any departures from NRC guidance.

3.0 General Design Description

This section outlines the Blue Energy SSC classification methodologies, general site layout and equipment general arrangements.

The IMS is a structure akin to a shield building. It is not containment, nor does it provide any functions of containment (e.g., retention of steam during a LOCA). A Blue Energy plant will incorporate a **[** **]]**[abe]. There are no scenarios in which the IMS performs containment functions.

The IMS will be **[[** **]]**[abde].

[2] Dimensions and geometry of the IMS™ are preliminary and will vary based on the reactor vendor design chosen for the Blue Energy plant.

[[

]]abde Figure 1 – Typical IMS Section

3.1 Classification of IMS Structures, Systems and Components

The Blue Energy SSC classifications for the IMS will be consistent with the definition of safety-related in 10 CFR 50.2 and RG 1.26. The SSC classification process is applied at the component level based upon the system functions performed. At the system level, system functions are designated as safety-related or non-safety-related. Safety-related SSCs are subject to the QAPD requirements described in the Blue Energy QAPD topical report BE-QAPD-001, “Quality Assurance Program Description.”

The Blue Energy seismic classification of SSCs will be consistent with the guidance of RG 1.29, and the SSC that meet NRC Staff Regulatory Guidance C.2 are designated Seismic Category II. Seismic Category I applies to both functionality and integrity, and seismic Category II applies only to integrity. Non-seismic items located in proximity to safety-related items, the failure of which during a safe shutdown earthquake could result in loss of function of safety-related items, are designated as seismic Category II. Non-seismic (NS) SSCs are those that are not classified seismic Category I or Category II.

SSC or seismic classification for the IMS or any SSCs it contains, has not been finalized. Final SSC and seismic classifications will be provided in a future licensing submittal (e.g. FSAR). Preliminary analysis for SSC classification of substructures in the IMS is as follows:

1. **[[** [redacted] **]]**[abcde].

For the portions of the IMS discussed in this white paper, Blue Energy will provide final safety and seismic classifications in a future licensing submittal. Additional design information for the IMS is required to validate assumptions made for safety and seismic classification given the preliminary design of the IMS.

Although these components are **[[** [redacted] **]]**[b]. Therefore, they are treated separately for safety classification, seismic categorization, and quality assurance purposes.

3.2 Site General Layout and Monopile Arrangement

3.2.1 The plant arrangement is comprised of one or more **[** [redacted] **]]** bde.

3.2.2 Portions of the IMS are designed to meet seismic Category I requirements as defined in Regulatory Guide 1.29. The IMS consists of a **[** [redacted] **]** bde.

3.2.3 The IMS structures are designed to withstand the effects of natural phenomena such as hurricanes, floods, tornados, tsunamis, and earthquakes without loss of capability to perform safety functions.

3.2.4 Design for natural phenomena is based on industry standards and conforms to regulatory guidance regarding mitigation strategies.

3.2.5 The IMS is designed to withstand the effects of postulated internal events such as fires and flooding without loss of capability to perform safety related and safe shutdown design basis functions.

3.2.6 The plant arrangement provides separation between safety-related and non-safety-related systems to preclude adverse interaction between safety-related and non-safety-related equipment. This is further detailed in topical report BE-BOPTR-02-P, “Resequencing Balance-of-Plant and Nuclear Island Construction for Blue Energy Deployments,” Revision 0.

3.2.7 Separation criteria within the IMS between redundant safety-related equipment and systems provides confidence that the required safety design functions can be performed.

3.2.8 Pathways through the IMS are designed to accommodate equipment maintenance and equipment removal from within the IMS and other land-based building structures. The size of the pathways is dictated by the largest appropriate piece of equipment (or module) that may have to be removed or installed after initial installation. Where required for refueling and other evolutions within the IMS, laydown space is provided within the IMS for disassembling large pieces of equipment to accommodate the removal or installation process.

3.2.9 Adequate space within the IMS is provided for equipment maintenance, laydown, removal and inspection of the containment vessel and its sub-system components. Personnel hatches, stairs, ladders, monorails, hoists, and other appurtenances such as removable radiation shield walls are provided to facilitate maintenance.

3.3 IMS [[ ]]bde

The IMS **[[**

]]bde.

A future licensing submittal will provide material specifications for the **[[ ]]**bde and a description of how the **[[ ]]**bde is fabricated. It will also describe how the **[[ ]]**bde is designed to withstand natural phenomena and external hazards.

3.3.1 **[[ ]]**bde Loads

This Section describes loads that the **[[**

[redacted]

[redacted]]]abcde.

A future licensing submittal will describe all applicable loads for the **[[**[redacted]**]]**bde as well as load combinations under different operating conditions, including accident conditions.

3.4 IMS [[[redacted]*]]bde*

The IMS **[[**[redacted]

[redacted]]]abcde material specifications and design parameters to withstand various loads, natural phenomena, and external hazards are being evaluated and will be included in a future regulatory submittal.

Figures 2 and 3 show steel monopiles being fabricated, and as built, respectively.

Figure 2 – Monopile Rolling

Figure 3 – As-Built Monopile

Figures 2 and 3 are provided as typical examples of how a monopile is fabricated. A Blue Energy IMS **[[** **]]**[abcde].

3.4.1 [[ ]][bde] General Equipment Arrangement and Design

The **[[** **]]**[abcde].

3.4.2 [[ ]][bde] Loads and Load Combinations

This Section describes loads that the **[[** **]]**[bde] experiences due to its environment and method of installation, that are considered in addition to typical structural loads. The following is a preliminary list of loads due to the IMS environmental, and method of installation:

- **[[**

[redacted]

- [redacted]
- [redacted]
- [redacted]
- [redacted]]]abcde.

Due to some of the loads that the **[[**[redacted]**]]**bde may experience, Blue Energy will describe any necessary modifications to construction Codes and Standards used for the **[[**[redacted]**]]**bde.

3.4.3 [[[redacted]]]bde Materials

The materials of construction of the **[**[redacted]**]**abcde.

3.5 IMS [[[redacted]]]bde

The IMS **[** [redacted]

- [redacted]
- [redacted]

- [redacted]
- [redacted]]]abcde.

Loads and load combinations will be similar to the **[** [redacted]]]bde.

3.6 IMS [[ ]]bde

The IMS **[[** [redacted]

- [redacted]
- [redacted]

[redacted]

- [redacted]
- [redacted]]]abcde.

3.7 IMS [[ ]]bde

The IMS **[[** [redacted]]]bde.

3.8 IMS [[ ]]bde

The IMS will **[[** [redacted]]]bde. Loads and load combinations will be described in a future regulatory submittal.

3.9 Construction and Installation Methods

Installation will take place by one of the following methods:

- **[[** [redacted]
- [redacted]

[redacted]

]][abcde].

The Blue Energy plant design considers the size of the monopile, and equipment needed to transport and install it in conjunction with the available modes of transport surrounding a potential site.

4.0 Design Basis Considerations of the Major Blue Energy IMS Structures Systems and Components

This section provides a high-level description of Blue Energy's intended design basis considerations for developing the major significant structures, systems and components' design requirements for the power plant design. A brief overview is presented to provide the staff with an understanding of the Blue Energy design.

4.1 IMS Ultimate Heat Sink

The ultimate heat sink (UHS) is a safety-related pool of water that comprises the [[[redacted]

[redacted]

]]abcde.

4.2 IMS Ventilation System

The **[[**[redacted]

]]abcde.

4.3 IMS Handling of New and Spent Fuel

The IMS will be able to **[[**[redacted]

[redacted]]][abcde].

Further design of the Spent Fuel Handling System and the Refueling Module will be provided in a future licensing submittal.

4.4 IMS Engineered Safety Features

The **[[**[redacted]**]]**[abcde] is designed to withstand natural phenomena such as earthquakes, winds, tornadoes, or floods and protects the power module and the UHS.

The IMS structures, systems, and components are designed and constructed to meet Seismic Category I classification guidance per RG 1.29. The materials for ESF components that are **[** [redacted] **]**[abcde].

4.5 IMS Equipment Movement

The IMS is designed with a **[[**[redacted]**]]**[bde] will contain flanges for removal.

5.0 Safety Design Basis of the Blue Energy IMS

This section provides a high-level description of Blue Energy's preliminary safety design requirements (and acceptance criteria) that will be followed for developing the significant structures, systems and components in the power plant design. A brief overview is presented to provide a foundation for understanding the Blue Energy design. The preliminary design requirements include:

1. IMS design conforms to applicable regulations that are summarized in Section 2.0. A future licensing submittal will detail compliance with all applicable regulations.

2. The IMS is designed to be fabricated, erected, and operated in such a manner that the release of radioactive materials to the environment does not exceed the limits and guideline values of applicable government regulations pertaining to the release of radioactive materials for normal operations and for design basis transients and accidents.
3. A power module is designed and constructed to completely enclose the reactor system (e.g. reactor core, steam generator, pressurizer) and performs the design basis and regulatory functions of the primary containment structure.
4. The power module is designed and constructed to allow periodic integrity and leak tightness testing in accordance with the requirements of 10 CFR 50, Appendix J.
5. The design and construction of the power module and subsystems, in conjunction with other required engineered safety features, will limit the release of radioactivity from inside the containment, in the event of a design basis occurrence or accident. The IMS structure provides an additional layer of defense, similar to a shield building, but is not credited in any FSAR Section 15 accident analyses as a fission product barrier.
6. Piping that will penetrate to/from the power module to the interior of the **[[ ]]**[bde].
7. Provisions are made for passively removing energy from the power module to maintain the integrity of the containment system following design basis occurrences and accidents that release energy inside the containment. Any potential heat up of the structure is passively mitigated by specified design features.

6.0 Design of the IMS Seismic Category I Structure

This section provides a high-level description of Blue Energy's IMS Seismic Category I structure significant design characteristics in the power plant design. A brief overview is presented to provide the NRC with a foundation for understanding the Blue Energy design.

6.1 General

The IMS is an integral component to housing and supporting the power module and subsystems. The power module is in the **[** **]**[abcde].

The primary design basis functions of the IMS are to:

- Provide structural support to the power module during operations and refueling
- Provide protection of the power module and supporting systems from external hazards.

- Provide protection of the power module and supporting systems from internal hazards.
- Provide adequate space within the IMS for equipment maintenance, laydown, removal and periodic inspections and testing programs that meet ASME BPVC and Operation and Maintenance Codes in accordance with 10 CFR 50.55a.
- Withstand conditions and loads from events that release energy into the **[[ ]]**[bde].
- Provide a pathway for passive decay heat removal to the ultimate heat sink.

6.1.1 Power Module Supports

The IMS provides for both lateral and vertical support for the power module. The **[[ ]]**[bde] incorporates lower and upper restraints that provide resistance to loads. These loads include seismic loads as well as loads at piping nozzles.

6.2 External Hazards

The IMS design accounts for the following external hazards:

1. Wind and tornado loadings;
2. Hurricane loadings;
3. Water level (internal and external floods);
4. Tsunamis;
5. Missiles (internally and externally generated); and
6. **[[ ]]**[abcde].

A future regulatory submittal will describe how external hazards are accounted for in the design of the IMS, and how applicable regulatory requirements are satisfied. Below are external hazard considerations specific to the Blue Energy plant design.

Due to the location of the IMS in **[[ ]]**[abcde].

The Blue Energy design will establish a design-basis flood level **[[ ]]**

[redacted]]]abcde.

Blue Energy will evaluate plant programs needed to monitor and mitigate floods for a specific site. This evaluation will include details on the extent of waterproofing, damp proofing, and leak-tightness required for the IMS.

6.3 Missile Protection

The IMS is designed to accommodate the effects of internally and externally generated missiles without losing the ability to perform safety related and important to safety functions.

6.3.1 Internal Missile Protection

The **[[**[redacted]**]]**bde provides missile protection by:

- Utilizing internal design features to prevent the generation of missiles.
- Orienting or physically separating potential missile sources away from safety related or important to safety equipment.
- Providing shields and/or barriers for structures, systems or components that would require missile protection.

Blue Energy will determine the potential for internally-generated missiles (including dynamic and environmental effects) and the effectiveness of mitigating measures. A future licensing submittal will provide the results of this analysis.

6.3.2 External Missile Protection

The **[[**[redacted]**]]**bde provides missile protection by:

- **[[**[redacted]**]]**abcde.
- orienting or physically locating the IMS away from any potential missile sources.
- providing barriers for protection from external collision sources. In addition, the IMS is protected from externally generated missiles due to **[[**[redacted]**]]**abcde.

[[[redacted]

[redacted]]]abcde.

6.4 [[redacted]]abcde Analysis

The Blue Energy IMS is evaluated for potential **[** [redacted]

[redacted]

]]abcde Figure 4 – Top-Down View of the Site Layout (Note that this layout is preliminary, and some SSCs shown might not be in the final design.)

Due to the location of the **[[** [redacted]

]abcde.

6.5 Seismic Analysis

This section addresses the Blue Energy methods of analysis for Seismic Category I components and supports for the power module.

The IMS is designed to withstand the effect of natural phenomena as described in Section 5.0 without affecting the ability of SR SSCs to perform their functions. In addition, the IMS is able to withstand loads from temperature and pressure transients that may occur during the life of the plant. A future licensing submittal will describe all

applicable loading scenarios from natural phenomena and from accident and transient scenarios.

Seismic analysis of the IMS will utilize a finite element model with software such as ANSYS. Blue Energy is evaluating which software to use and will specify the software and version in a future licensing submittal.

Construction codes for different portions of the IMS are being evaluated for applicability. These codes include ANSI/AISC N-690 and ACI 349. A future licensing submittal will provide the construction code for the IMS, and its substructures and components, and describe how it is implemented. This includes conformance with applicable regulatory guides, or a justification for any departures from applicable RGs. This may also include a comparison between codes and standards commonly used in the monopile industry, and NRC endorsed construction codes. All manufacturing work will be subject to the Blue Energy Quality Assurance Program (QAP), and differences between manufacturer QAPs and NRC endorsed QA standards will be evaluated.

Design loads and load combinations for the IMS, and its substructures and components are being evaluated. These loads include the effects of **[[** **]]**[abcde]. A future licensing submittal will provide the design loads and load combinations for the IMS, and its substructures and components.

Blue Energy will perform a site-specific seismic analysis. If the results of this analysis show that a **[[** **]]**[abcde].

A site-specific seismic analysis will include at least the following components:

1. Soil profiles;
2. Ground motion response spectra;
3. Safe-shutdown earthquake;
4. Operating basis earthquake; and
5. An evaluation of postulated failures of Seismic Category II structures on Seismic Category I structures.

6.6 SMR Integrated IMS System Decay Heat Removal Analyses

The modules and the stored spent fuel assemblies are the **[**[redacted]**]**[abcde].

The ability of the IMS to facilitate decay heat removal will be described in a future licensing submittal.

7.0 Conclusions

This white paper presents an overview of the Blue Energy IMS, its functions, and design features. No regulatory commitments are made in this white paper, and no NRC approval is requested for any design features of the IMS. A future licensing submittal will provide additional detail to describe how the IMS satisfies relevant regulatory requirements.

8.0 References

1. "Domestic Licensing of Production and Utilization Facilities", *Code of Federal Regulations*, 10 CFR 50.
2. "Reactor Site Criteria", *Code of Federal Regulations*, 10 CFR 100.
3. United States Nuclear Regulatory Commission, Regulatory Guide RG 1.70, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants," Revision 3 (ML011340072).
4. United States Nuclear Regulatory Commission, NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition," various sections.
5. United States Nuclear Regulatory Commission, Regulatory Guide 1.26, "Quality Group Classifications and Standards for Water-, Steam-, and Radioactive-Waste-Containing Components of Nuclear Power Plants," Revision 5 (ML16082A501).
6. Blue Energy, BE-QAPD-001, "Quality Assurance Program Description," Revision 1 (ML25128A357)
7. United States Nuclear Regulatory Commission, Regulatory Guide 1.29, "Seismic Design Classification for Nuclear Power Plants," Revision 6 (ML21155A003).
8. "Standards for Protection Against Radiation", *Code of Federal Regulations*, 10 CFR 20.
9. American National Standards Institute/American Institute of Steel Construction, N690-24, "Specification for Safety-Related Steel Structures for Nuclear Facilities," October 2024.
10. American Concrete Institute, ACI 349-13, "Code Requirements for Nuclear Safety-Related Concrete Structures and Commentary," 2013.

[a] Withheld pursuant to 10 CFR 2.390(a)(4) as information which discloses process, method, or apparatus, including supporting data and analyses, where prevention of its use by Blue Energy competitors without license or contract from Blue Energy constitutes a competitive economic advantage over other companies in the industry.
[b] Withheld pursuant to 10 CFR 2.390(a)(4) as information, which if used by a competitor, would reduce his or her expenditure of resources or improve his or her competitive position in design, manufacture, shipment, installation, assurance of quality.
[c] Withheld pursuant to 10 CFR 2.390(a)(4) as information which reveals aspects of past, present, or future Blue Energy or customer funded development plans or programs, of potential commercial value to Blue Energy.
[d] Withheld pursuant to 10 CFR 2.390(a)(4) as information which discloses patentable subject matter for which it may be desirable to obtain patent protection.
[e] Withheld pursuant to 10 CFR 2.390(a)(4) as information obtained through Blue Energy actions which could reveal additional insights into reactor system development, testing, qualification processes, and/or regulatory proceedings, and which are not otherwise readily obtainable by a competitor.