



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

August 8, 2025

MEMORANDUM TO: Mahmoud Jardaneh, Chief
New Reactor Licensing Branch
Division of New and Renewed Licenses
Office of Nuclear Reactor Regulation

FROM: Alina Schiller, Project Manager
New Reactor Licensing Branch
Division of New and Renewed Licenses
Office of Nuclear Reactor Regulation

A handwritten signature in black ink, appearing to read "Alina Schiller", is positioned to the left of the typed name and title.

Signed by Schiller, Alina
on 08/08/25

SUBJECT: PLAN FOR THE REGULATORY AUDIT OF BLUE ENERGY
GLOBAL, INC. TOPICAL REPORT BE-BOPTR-02,
"RESEQUENCING BALANCE-OF-PLANT AND NUCLEAR
ISLAND CONSTRUCTION FOR BLUE ENERGY
DEPLOYMENTS," REVISION 0 (EPID: L-2025-TOP-0021)

By letter dated May 28, 2025 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML25148A418), Blue Energy Global, Inc. (Blue Energy) submitted Topical Report BE-BOPTR-02, "Resequencing Balance-of-Plant and Nuclear Island Construction for Blue Energy Deployments," Revision 0, for review and approval by the U.S. Nuclear Regulatory Commission (NRC). The purpose of this audit is for the NRC staff to conduct the safety review of the Blue Energy topical report in such a manner that identified issues can readily and easily be discussed and closed out to avoid delay in review schedule. The audit also achieves a more effective and efficient review by allowing the NRC staff to review and discuss supporting material with the objective of improving communication and eliminating unnecessary requests for additional information. The NRC staff plans to audit material which may be needed to make a reasonable assurance finding that the methodology described in the topical report protects public health and safety. If the NRC staff identifies information that is needed to support a finding, Blue Energy will need to submit that information on the application docket.

CONTACT: Alina Schiller, NRR/DNRL
301-415-8177

The audit will be conducted primarily remotely via the established Blue Energy's Electronic Reading Room (eRR); however, Blue Energy's office in Rockville, Maryland, as identified in the audit plan below, may also be utilized, as necessary. The audit is scheduled to commence on August 19, 2025, and conclude on August 29, 2025. The audit plan is provided as an enclosure to this memorandum.

Project No. 99902137

Enclosure:
Audit Plan

cc w/encl.: Blue Energy Global, Inc., GovDelivery

SUBJECT: PLAN FOR THE REGULATORY AUDIT OF BLUE ENERGY GLOBAL, INC.
TOPICAL REPORT BE-BOPTR-02, "RESEQUENCING BALANCE-OF-PLANT
AND NUCLEAR ISLAND CONSTRUCTION FOR BLUE ENERGY
DEPLOYMENTS," REVISION 0 (EPID: L-2025-TOP-0021)
DATED: AUGUST 08, 2025

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ADAMS Accession No: ML25216A095 *via e-concurrence NRR-106

OFFICE	DNRL/NRLB:PM	DNRL/NLIB:LA	DNRL/NRLB:PM	DNRL/NRLB:PM
NAME	ASchiller	SGreen*	PChowdhury: *MJardaneh for	ASchiller*
DATE	07/22/2025	08/04/2025	08/05/2025	8/8/25

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UNITED STATES NUCLEAR REGULATORY COMMISSION
PLAN FOR THE REGULATORY AUDIT OF BLUE ENERGY GLOBAL, INC.,
TOPICAL REPORT BE-BOPTR-02, "RESEQUENCING BALANCE-OF-PLANT AND
NUCLEAR ISLAND CONSTRUCTION FOR BLUE ENERGY DEPLOYMENTS," REVISION 0

PROJECT NO. 99902137

APPLICANT: Blue Energy Global, Inc. (Blue Energy)

APPLICANT CONTACTS: CJ Fong
Antonios Zoulis
Alex Chereskin

DATE: August 19, 2025 – August 29, 2025

LOCATION: **NRC Headquarters (via Blue Energy's Electronic Reading Room (eRR))**
One White Flint North
11545 Rockville Pike
Rockville, MD 20852-2738

Blue Energy
12358 Parklawn Drive, Suite 300
North Bethesda, MD 20852

AUDIT TEAM: Angelo Stubbs (NRR/DSS/SCPb), Team Lead
Joshua Miller (NRR/DSS/SNRB)
Amitava Ghosh (NRR/DEX/ESEB)
Patrick Koch (NRR/DEX/ELTB)
Patricia Vokoun (NMSS/REFS/EPMB3)

PROJECT MANAGERS: Prosanta Chowdhury (NRR/DNRL/NRLB)
Alina Schiller (NRR/DNRL/NRLB)

Enclosure

I. BACKGROUND AND OBJECTIVES

By letter dated May 28, 2025, Blue Energy Global, Inc. (Blue Energy) submitted Topical Report (TR) BE-BOPTR-02, "Resequencing Balance-of-Plant and Nuclear Island Construction for Blue Energy Deployments," Revision 0 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML25148A420 (public), ML25148A421 (non-public)), for review and approval by the U.S. Nuclear Regulatory Commission (NRC). The purpose of this audit is for the NRC staff to conduct the safety review of the Blue Energy TR in an efficient manner by identifying issues that can readily and easily be discussed and closed out to avoid delay in the review schedule. The audit also achieves a more effective review by allowing the staff to review and discuss supporting material with the objective of improving communication and eliminating or reducing requests for additional information. The NRC staff plans to audit material which may be needed to make a reasonable assurance finding that the methodology described in the TR protects public health and safety. If the NRC staff identifies information that is needed to support a finding, Blue Energy will need to submit that information on the application docket.

II. REGULATORY AUDIT BASIS

This regulatory audit is based on the following:

- Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities"
- 10 CFR 50.10, "License required; limited work authorization"
- 10 CFR 50.2 for definition of Safety-related structures, systems, or components (SSCs)
- 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions"
- 10 CFR Part 73, "Physical Protection of Plants and Materials"
- 10 CFR Part 100, "Reactor Site Criteria"

III. REGULATORY AUDIT SCOPE

The audit covers all parts of Blue Energy's TR BE-BOPTR-02. Audit topics include the initial information needs described below and any additional needs identified by the NRC staff in subsequent discussions during the audit.

IV. INFORMATION AND OTHER MATERIAL NECESSARY FOR THE REGULATORY AUDIT

To support the regulatory audit, the NRC staff requests all relevant material associated with BE-BOPTR-02 to be made available to the NRC staff. Specifically, Blue Energy should be prepared to provide documents, reports, calculations, computer code verification, and other material, as applicable, supporting the analyses documented in the TR. The NRC staff may request that Blue Energy make these additional materials available in the eRR and/or as a computer disk to be submitted on the docket.

Specific audit information needs and questions include but are not limited to the following:

- Supporting information to address the situation where the Blue Energy balance-of-plant (BOP) SSCs may meet the definition of construction per 10 CFR 50.10(a)(1).
- Discussion regarding the current design and maintenance considerations.
- Discussion regarding the Regulatory Analysis of BOP SSCs provided in TR Section 5.8, Table 2.
- Technical basis for the proposed limitations and conditions in TR Section 7.0.

Although most components of the steam and power conversion system are generally not classified as safety-related, certain valves, interfaces, or credited systems may serve safety-related functions or be treated as such in specific evaluations. Therefore, it is important that the boundary between safety-related and non-safety-related systems is clearly defined in the plant's design basis and licensing documentation. As part of this audit, the staff requests that the applicant provide information on how it defines the BOP and what it includes within the nuclear island (NI). In the TR, the applicant states that it does not require all SSCs needed to mitigate an anticipated operation occurrence (AOO) to be safety-related and that SSC classification is outside the scope of this TR and will be addressed in a future submittal. The applicant should also identify any proposed conditions or limitations that ensure proper treatment of safety-related valves, interfaces, or credited systems, particularly during the design and integration of the NI with the BOP.

- The TR states that physical separation between the instrumentation and monitoring system and BOP SSCs is used to demonstrate that BOP SSCs are not subject to the requirements of 10 CFR 50.10(a)(1)(iii). It also suggests that this separation provides reasonable assurance that failures or malfunctions within the BOP—such as turbine missile events—will not impact the NI. However, a definitive conclusion regarding the potential impact of turbine missiles on plant safety and safety-related SSCs cannot be made without detailed information about the specific turbine design, its orientation, the overspeed protection system, missile barriers, and the proximity of the turbine to safety-related SSCs. The staff requests that the applicant provide information on how the BOP will be constructed to ensure that safety-related and important to safety SSCs would not be susceptible to turbine missiles.

V SPECIAL REQUESTS

Blue Energy and NRC have agreed on the following high-level audit logistics:

- Blue Energy will provide NRC audit team access to their eRR portal for document viewing.
- Blue Energy will make documents available for viewing at their office location when needed.
- NRC PM will provide audit issues as soon as they are available and schedules audit meetings when needed.

- Blue Energy will upload responses to audit issues/questions in eRR along with associated documents, if any.
- NRC staff will review audit issue responses and associated documents, if any, and provide feedback in audit meetings and/or in writing (non-public).
- NRC staff may issue a formal request for additional information when an issue is not resolved during the audit.

VI DELIVERABLES

The NRC staff acknowledges the proprietary nature of the information requested and will handle it appropriately throughout the audit. While the NRC staff will take notes, the NRC staff will not remove hard copies or electronic files from the audit site(s).

The NRC staff will inform Blue Energy of emerging information needs as well as documents that can be removed from eRR.

The NRC will issue a regulatory audit summary report within 90 days after the completion of the audit that will be placed on the docket and in ADAMS. The audit outcome could also identify any additional information to be submitted separately for making regulatory decisions.