



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

September 1, 2022

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SUBJECT: BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2 - CORRECTION OF ERRORS IN SAFETY EVALUATION ASSOCIATED WITH LICENSE AMENDMENT NOS. 315 AND 205 REGARDING CHANGES TO THE EMERGENCY PREPAREDNESS PLAN (EPID L-2021-LLA-0127)

Dear Mr. Grabnar:

By letter dated May 6, 2022 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21286A782), the U.S. Nuclear Regulatory Commission (NRC) issued Amendment No. 315 to Renewed Facility Operating License No. DPR-66 for Beaver Valley Power Station, Unit No. 1, and Amendment No. 205 to Renewed Facility Operating License No. NPF-73 for Beaver Valley Power Station, Unit 2. The amendments revise the Beaver Valley Emergency Preparedness Plan to reduce the number of on-shift staff positions, extend augmented Emergency Response Organization (ERO) response times, and re-align augmented ERO response positions.

Subsequent to the issuance of these amendments, the NRC was notified by Energy Harbor Nuclear Corp. (the licensee) via e-mail dated June 29, 2022, (ML22202A464) that administrative errors were made in the safety evaluation in Sections 3.2, 3.2.4, and 3.2.6. The NRC has determined that these errors were made inadvertently, and the corrections do not change the conclusions in the safety evaluation associated with the issuance of Amendment Nos. 315 and 205 and do not affect the associated notice to the public. The replacement safety evaluation associated with these amendments is enclosed. Revisions are identified by a marginal line to indicate areas of change.

J. Grabnar

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If you have any questions, please contact me at 301-415-0680 or [Brent.Ballard@nrc.gov](mailto:Brent.Ballard@nrc.gov).

Sincerely,

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Brent T. Ballard, Project Manager  
Plant Licensing Branch I  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-334 and 50-412

Enclosure:  
Corrected Safety Evaluation

cc: Listserv



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
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CORRECTED

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 315 AND 205

TO RENEWED FACILITY OPERATING LICENSE NOS. DPR-66 AND NPF-73

ENERGY HARBOR NUCLEAR CORP.

BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2

DOCKET NOS. 50-334 AND 50-412

1.0 INTRODUCTION

By application dated June 14, 2021 (Reference 1), as supplemented by letter dated July 27, 2021 (Reference 2), Energy Harbor Nuclear Corp. requested changes to the Beaver Valley Power Station Units 1 and 2 (Beaver Valley) Emergency Preparedness Plan (EPP) pursuant to Section 50.54(q)(4) of Title 10 of the *Code of Federal Regulations* (10 CFR). The proposed changes would revise the Beaver Valley EPP to change the Emergency Response Organization (ERO) staffing composition and to increase the staff augmentation times from 30 minutes to 60 minutes and from 60 minutes to 90 minutes for certain ERO positions from the time of declaration of an Alert or higher emergency classification level (ECL).

The proposed revisions include:

- Elimination of 30-minute augmented response times;
- Extension of the requirement for dispatch of sampling teams and augmented ERO positions to 60 and 90 minutes, as applicable;
- Addition of 60-minute facility activation criteria for the Technical Support Center (TSC), Operations Support Center (OSC), and Emergency Operations Facility (EOF);
- Reorganization of the transfer of command and control functions in support of 60-minute activation of Emergency Response Facilities (ERFs);
- Extension of augmented ERO response times from 30 and 60 minutes to 60 and 90 minutes;
- Standardization of facility names, position titles, and responsibilities to align with the Energy Harbor Nuclear Corp. fleet;
- Re-assignment of the responsibility for performance of on-shift dose assessment from the on-shift Radiation Protection (RP) Technician to the Shift Engineer/Shift Technical Advisor (SE/STA);

Enclosure

- Reduction of the number of RP Technicians on-shift from three (3) to two (2) RP Technicians;
- Revision of the activation of the EOF and staffing of the Joint Information Center (JIC) from the Site Area Emergency or General Emergency classification to the Alert or higher classification level; and revision of augmented ERO positions to align with facility activation and command and control functional changes, and elimination of duplicative activities.

The supplemental letter dated July 27, 2021, provided additional information that clarified the application but did not expand the scope of the application as originally noticed and, therefore, did not change the U.S. Nuclear Regulatory Commission (NRC) staffs proposed No Significant Hazards Consideration determination as published in the *Federal Register* on November 30, 2021 (86 FR 67987).

## 2.0 REGULATORY EVALUATION

The regulatory requirements and guidance on which the NRC staff based its review are provided below.

### 2.1 Regulatory Requirements

The onsite and offsite emergency preparedness plans must meet the planning standards established in 10 CFR 50.47(b) for the NRC staff to make a finding that there is reasonable assurance that the licensee can, and will, take adequate protective measures in the event of a radiological emergency. Specifically, on-shift and augmented ERO staffing is addressed under 10 CFR 50.47(b)(2), which states:

On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available and the interfaces among various onsite response activities and offsite support and response activities are specified.

In addition, Appendix E to 10 CFR Part 50, "Emergency Planning and Preparedness for Production and Utilization Facilities," Section IV, Part A, "Organization," states, in part:

The organization for coping with radiological emergencies shall be described, including definition of authorities, responsibilities, and duties of individuals assigned to the licensee's emergency organization.

### 2.2 Guidance

Regulatory Guide (RG) 1.101, Revision 2, "Emergency Planning and Preparedness for Nuclear Power Reactors," October 1981 (Reference 3), provides guidance on methods acceptable to the NRC staff for implementing the planning standards of 10 CFR 50.47(b)(1) and (2) and the requirements of Sections IV.A and IV.D of Appendix E to 10 CFR Part 50. Revision 2 of RG 1.101 endorses Revision 1 to NUREG-0654/FEMA-REP-1 [Federal Emergency Management Agency – Radiological Emergency Preparedness], "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980 (Reference 4), which provides acceptance criteria outlining an acceptable means for complying with the planning standards set forth in 10 CFR 50.47(b).

These criteria provide an acceptable basis for NRC licensees, and State and local governments to develop acceptable radiological emergency plans.

In NUREG-0654, Section II, "Planning Standards and Evaluation Criteria," Evaluation Criteria II.B.1 and II.B.5 address planning standard 10 CFR 50.47(b)(2). Evaluation Criterion II.B.1 specifies the onsite emergency organization of plant staff personnel for all shifts, and its relation to the responsibilities and duties of the normal shift complement. In addition, Evaluation Criterion II.B.5, states, in part:

Each licensee shall specify the positions or title and major tasks to be performed by the persons to be assigned to the functional areas of emergency activity. For emergency situations, specific assignments shall be made for all shifts and for plant staff members, both onsite and away from the site. These assignments shall cover the emergency functions in Table B-1 entitled, "Minimum Staffing Requirements for Nuclear Power Plant Emergencies." The minimum on-shift staffing levels shall be as indicated in Table B-1. The licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency. This capability shall be as indicated in Table B-1.

The NRC's Office of Nuclear Security and Incident Response (NSIR), Division of Preparedness and Response (DPR), Interim Staff Guidance (ISG), document – NSIR/DPR-ISG-01, "Emergency Planning for Nuclear Power Plants," November 2011 (Reference 5), provides updated guidance information to address emergency planning requirements for nuclear power plants. Specifically, NSIR/DPR-ISG-01 was developed to address the assignment of tasks or responsibilities to on-shift ERO personnel that would potentially overburden them and prevent the timely performance of their emergency plan functions. The ISG also endorsed the Nuclear Energy Institute (NEI) document NEI 10-05, Revision 0, "Assessment of On-Shift Emergency Response Organization Staffing and Capabilities," June 2011 (Reference 6), which was developed to establish a standard methodology for licensees to conduct analyses of the ability of on-shift staff to perform all required functions and tasks necessary to respond to a declared emergency for an operating power reactor.

By letter dated June 12, 2018 (Reference 7), the NRC staff provided alternative guidance to Evaluation Criterion II.B.5 in NUREG-0654, Revision 1, for minimum ERO on-shift and augmentation staffing. The letter stated, in part:

The NRC has revised Section II.B, Table B-1 of NUREG-0654, based in part on comments received from the public on the draft Revision 2 of NUREG-0654, located at [www.regulations.gov](http://www.regulations.gov) under Docket ID FEMA-2012-0026. The revised ERO staffing guidance has been finalized, and the NRC will include it when the entire NUREG-0654, Revision 2, is ready for issuance. Until then, the NRC staff is making available on an interim basis the ERO on-shift and augmentation staffing plan (attached). Regardless of whether a licensee chooses to use the guidance contained in Revision 1 of NUREG-0654, the attached, or an alternative approach, licensees are still required to adhere to 10 CFR 50.54(q) when revising their ERO staffing plans.

Hereafter, Table B-1, "Emergency Response Organization (ERO) Staffing and Augmentation Plan," which is an attachment to the letter dated June 12, 2018, will be referred to as "Revised Table B-1" in this safety evaluation.

Energy Harbor stated that a functional analysis of the augmented ERO positions based on the extended response times and completion of major tasks was performed as outlined in NUREG-0654, Revision 1 and the Revised Table B-1.

### 3.0 TECHNICAL EVALUATION

The NRC staff has reviewed the licensee's regulatory and technical analyses in support of the proposed changes to the Beaver Valley EPP, as described in the application dated June 14, 2021, and supplemented by letter dated July 27, 2021. The NRC staff's technical evaluation is detailed below.

#### 3.1 Enhancements

An evaluation of the proposed changes to the Beaver Valley ERO based upon the applicable major functional areas as described in the Revised Table B-1 was performed. Many of the proposed changes are supported by enhancements to equipment (technology) and by procedural, training, and process improvements, as described below. Collectively, these enhancements compensate for the proposed increases in augmentation timing and the proposed reduction in available on-shift maintenance expertise.

##### *Plant Computer*

Energy Harbor stated that in the 1980's, the plant computer systems installed in the Beaver Valley control rooms included a combination of plant computers, Safety Parameter Display Systems (SPDS), and dose assessment computers. The systems were not integrated, and it was necessary for operators to utilize multiple computers and displays during routine and emergency operations. Since the 1980s, multiple computer system upgrades have taken place at Beaver Valley. These design changes included replacement of the Beaver Valley Unit 1 In-Plant Computer with the integration of the SPDS, and the replacement of the Beaver Valley Unit 2 Process Computer System with the integration of SPDS. The benefits of current computer systems include:

- Simplified system flow diagrams with status information available on computer workstations;
- Ability to support multiple users;
- Plant data availability through graphical displays;
- Plant data availability on any desktop computer through the corporate network;
- Alarm monitoring and display of various parameters; and
- Monitoring and display of the six (6) Critical Safety Functions associated with protecting the health and safety of the public.

Energy Harbor stated that the In-Plant Computer and Process Computer System can provide information on in-plant process and effluent monitors, which include monitor trending and alarm status in the control room, TSC, and EOF.

##### *Dose Assessment*

Energy Harbor stated that the Beaver Valley dose assessment was originally performed utilizing a Computer Assisted Class-A Model, Computer Assisted Class-B model, Class-A hand

calculation methods, and a Liquid Release Hand Calculation model. The capabilities centered around the Atmospheric Radioactivity Effluent Release Assessment System, a data collection system. The Atmospheric Radioactivity Effluent Release Assessment System ran the Meteorological Information and Dose Assessment System. The Meteorological Information and Dose Assessment System provided a straight-line trajectory plume model.

The current dose assessment capability utilizes the Unified Radiological Assessment System for Consequence Analysis interface dose assessment software. This software includes the capability to complete multi-unit / multi-source dose projections. This allows dose assessment personnel to complete dose projections for events involving both Beaver Valley units or multiple release points from the site during an accident scenario. The site computer displays provide effluent radiation monitor indications as well as meteorological data from the meteorological tower. These displays also highlight radiation monitors that are in an alarm condition.

### *Procedure Improvements*

Energy Harbor stated that Beaver Valley emergency action levels now incorporate guidance that has simplified the emergency classification process, including the use of an overview matrix of emergency action levels initiating conditions and threshold values, which streamlines the process of evaluating emergency action levels against plant conditions. Additionally, emergency operating procedures (EOPs) have been vastly improved through internal operating experience and industry initiatives. EOPs now use a symptom-based approach that demands less assessment and interpretation of plant conditions by the operating crews. Overall, the improvements made to procedures greatly reduce the operator's reliance on the on-shift ERO during the initial phases of any event.

### *Training*

Energy Harbor stated that training is administered through the application of a systematic approach to ensure that all training is conducted to the industry-accepted standards required to achieve and maintain accreditation by the National Academy of Nuclear Training. A dynamic reference plant simulator is used during operations training to provide hands on experience and practice in the operation of the plant in the control room during normal, abnormal, and emergency plant conditions. Energy Harbor fleet training procedures describe the conduct of crew specific simulator training. Evaluation scenarios are designed to be realistic and provide an opportunity for performance evaluation during a wide range of plant operating conditions, including emergency conditions that require implementation of the plant's EOPs. The simulator training scenarios can vary in both length and complexity.

Based on these enhancements, Energy Harbor concluded that there would be no significant degradation or loss of any functional capability as a result of the proposed changes in on-shift staff, augmentation times, facility activation criteria or re-alignment of augmented positions.

The NRC staff finds that the improvements to equipment, procedures, and training that have occurred since initial approval of the Beaver Valley EPP have collectively resulted in an increase in the on-shift ERO capabilities and knowledge.

### 3.2 Major Functional Areas

In its application, Energy Harbor provided a justification for the proposed Beaver Valley EPP changes that included a detailed review of each major functional area described in the Revised Table B-1.

The current Beaver Valley EPP describes the ERO as consisting of personnel staffing in the following emergency response facilities:

- Control room,
- OSC,
- TSC,
- EOF, and
- JIC.

The current Beaver Valley EPP activates the TSC and OSC at the declaration of an Alert or higher ECL, and activates the EOF and staffs the JIC at the declaration of a Site Area Emergency or higher ECL. Energy Harbor proposes to activate the TSC, OSC, EOF, and staff the JIC within 60 minutes of declaring an Alert or higher ECL. Although activation of the EOF and JIC would not be required until the declaration of a Site Area Emergency or higher ECL is in effect per the guidance in the Revised Table B-1, the proposed ERO staffing changes to the Beaver Valley EPP require the activation of the TSC, OSC, EOF, and the staffing of the JIC at the declaration of an Alert or higher ECL.

The NRC staff's review of the proposed changes to the Beaver Valley EPP is described below by major functional area.

#### 3.2.1 Major Functional Area: Plant Operations and Assessment of Operational Aspects

Energy Harbor stated that NUREG-0654, Revision 1 assumes the on-shift staff will perform plant operations and assessment of operational aspects functions throughout the emergency. The Revised Table B-1 replaced the plant operations and assessment of operational aspects major functional area with the emergency direction and control major functional area. The revision placed greater focus on performance of emergency preparedness functions performed by plant operations personnel.

Energy Harbor stated that the staffing levels associated with plant operations are revised to reflect only those with positions performing emergency preparedness functions of classification, notification, protective actions/dose assessment, core damage assessment, and oversight of on-shift ERO in order to better align the Beaver Valley EPP with the Revised Table B-1.

Energy Harbor further stated that the proposed change was evaluated in accordance with 10 CFR Part 50, Appendix E, Section IV.A.9. The evaluation did not reveal any conflicting duties for on-shift personnel as a result of the proposed change and continues to meet NRC guidance.

The NRC staff finds the revision of the plant operations staffing to only reflect those with positions performing emergency preparedness functions is consistent with the guidance in the Revised Table B-1 and is acceptable.



Based on an evaluation of the changes described above, the NRC staff has determined that the proposed Beaver Valley EPP will continue to meet the planning standard of 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50 regarding plant operations and assessment of operational aspects.

### 3.2.2 Major Functional Area: Emergency Direction and Control

The Revised Table B-1 assigns one on-shift individual to perform the emergency direction and control function, typically the Operations Shift Manager. It further recommends that the TSC should be staffed with an Emergency Coordinator to relieve the control room within 60 minutes following the declaration of an Alert or higher ECL. Additionally, the EOF Emergency Director position should be staffed within 60 minutes of the declaration of a Site Area Emergency or higher ECL to perform relief and assume the Emergency Direction and Control function from the TSC.

The current revision of the Beaver Valley EPP provides for the performance of emergency direction and control functions in the TSC at 60 minutes following the declaration of an Alert or higher ECL and in the EOF at 60 minutes following the declaration of a Site Area Emergency or higher ECL. The proposed change describes activation of the OSC, TSC, and EOF within 60 minutes of an Alert or higher classification. The emergency direction and control functions of classification, Federal notification, and emergency exposure authorization would be transferred to the TSC Emergency Coordinator, and the functions of State/local notification and dose assessment/protective action recommendations (PARs) would be transferred to the EOF Emergency Director upon activation of these facilities.

The figure, "Transition of Command and Control Functions," in Section 3.3, "Emergency Measures," in the proposed Beaver Valley EPP illustrates the transfer of emergency direction and control functions by facility:

<b>CONTROL ROOM</b>	<b>TSC</b>	<b>EOF</b>
<b>SM [Shift Manager] / Emergency Coordinator</b>	<b>Emergency Coordinator</b>	<b>Emergency Director</b>
Classification ----->	Classification	
Notifications (State/local) ----->		Notifications (State/local)
Notifications (NRC) ----->	Notifications (NRC)	
PARs ----->		PARs
Emergency Exposure -----> Controls	Emergency Exposure Controls	

The proposed change does not extend the amount of time that the Shift Manager/Emergency Coordinator maintains responsibility for Emergency Direction and Control as the 60-minute TSC, OSC, and EOF activation criteria would ensure continued relief for on-shift personnel within the existing timeframe.

Based on an evaluation of the changes described above, the NRC staff has determined that the proposed Beaver Valley EPP will continue to meet the planning standard of 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50 regarding emergency direction and control.

### 3.2.3 Major Functional Area: Notification/Communication

The Revised Table B-1, assigns one on-shift individual to perform the notification and communication function as a collateral duty. It further recommends that the TSC will be staffed with two communicators within 60 minutes of the declaration of an Alert or higher ECL and an additional communicator, as needed, within 90 minutes. In addition, the Revised Table B-1 recommends the staffing of one communicator in the EOF within 60 minutes of the declaration of a Site Area Emergency or higher ECL.

The current Beaver Valley EPP assigns one on-shift individual as an on-shift Communicator to perform the notification/communication function and has one additional communicator in the TSC available within 30 minutes of declaring an Alert or higher ECL with two additional communicators available within 60 minutes of declaring an Alert or higher ECL.

Energy Harbor stated that the proposed Beaver Valley EPP maintains an on-shift individual as an on-shift Communicator to perform the notification/communication function. However, the proposed Beaver Valley EPP eliminates the 30-minute augmented response position and provides for augmenting the staffing of the EOF State/local Communicator and TSC Emergency Notification System (ENS) Communicator within 60 minutes of a declaration of an Alert or higher ECL. Energy Harbor stated that the change supports the transition of the Federal notification function to the TSC and the State and local notification function to the EOF within 60 minutes of a declaration of an Alert or higher ECL.

The NRC staff finds the change in the augmentation times for the staffing of the State and local Communicator in the EOF to activate at the same time as the TSC (within 60 minutes of a declaration of an Alert or higher ECL) is more conservative and timelier than what is provided in the Revised Table B-1. The designation of an augmenting ENS Communicator in the TSC and a State and local Communicator in the EOF meets the intent of the guidance in the Revised Table B-1 for the notification/communication function and is acceptable.

Based on an evaluation of the changes described above, the NRC staff has determined that the proposed Beaver Valley EPP will continue to meet the planning standard of 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50 regarding the notification/communication function.

### 3.2.4 Major Functional Area: Radiological Accident Assessment and Support of Operational Accident Assessment

#### Offsite Dose Assessment

The Revised Table B-1 assigns one on-shift individual to perform the offsite dose assessment function as a collateral duty. It further recommends that the TSC should be staffed with one Dose Assessment/Projection staff within 60 minutes following the declaration of an Alert or higher ECL. Additionally, the EOF should be staffed with one Dose Assessment/Projection staff within 60 minutes of the declaration of a Site Area Emergency or higher ECL.

The current Beaver Valley EPP maintains an on-shift dose assessment function by an on-shift RP technician. It further provides for augmentation of the dose assessment function within 30 minutes by the Environmental Assessment and Dose Projection Coordinator in the TSC. Energy Harbor stated that in the proposed Beaver Valley EPP, the responsibility for offsite dose assessment would be the responsibility of the STA and the on-shift RP Technician currently

responsible for the performance of this function would be added to the augmented response pool for the site. Additionally, the augmentation time for the Environmental Assessment and Dose Projection Coordinator is extended from 30 minutes to 60 minutes and renamed the Dose Assessment Coordinator. This would result in the performance of the dose assessment function by the STA for a total of 60 minutes.

Energy Harbor stated that the proposed change is being made as a result of enhancements to computer systems, as well as improvements in the dose assessment software at the facility. These computer system and dose assessment software improvements allow for minimal user interface and streamlining of data such that the activities related to monitoring performance of core damage and dose assessment can be performed by a single position, improving the efficiency for the performance of the tasks.

The NRC staff finds the change in the augmentation times for the staffing of the EOF to activate at the same time as the TSC (within 60 minutes of a declaration of an Alert or higher ECL) is more conservative and timelier than what is provided in the Revised Table B-1. The augmentation of Dose Assessment Coordinator in the EOF and elimination of the dose assessment position in the TSC meets the intent of the guidance in the Revised Table B-1 for the offsite dose assessment function and is acceptable.

Based on an evaluation of the changes described above, the NRC staff has determined that the proposed Beaver Valley EPP will continue to meet the planning standard 10 CFR 50.47(b)(2) and the requirements of Section IV.A to Appendix E of 10 CFR Part 50 regarding the offsite dose assessment function.

#### Offsite Surveys

The Revised Table B-1 recommends one onsite Field Monitoring Team (FMT) and one offsite FMT within 60 minutes of the declaration of an Alert or higher ECL. In addition, the Revised Table B-1 recommends one offsite FMT within 90 minutes of the declaration of an Alert or higher ECL.

The current Beaver Valley EPP assigns two radiological monitoring teams (renamed to FMTs in the proposed Beaver Valley EPP) within 30 and 60 minutes at the Site Area Emergency or higher classification. The teams are comprised of one RP Technician and another individual.

Energy Harbor stated that in the proposed Beaver Valley EPP, the dispatch of two FMTs will occur at declaration of an Alert or higher ECL rather than a Site Area Emergency or higher classification. Additionally, the response times are extended to 60 and 90 minutes for each FMT, respectively.

Energy Harbor stated that the use of in-plant and effluent monitors effectively supports event classification as well as onsite and offsite protective actions such that performance of this major task at 60 minutes does not adversely impact site response. Initial FMT response involves environmental radiation and contamination assessments and plume tracking using dose assessment instrumentation. Actions include driving to and from field positions, reading dose rate and air sampling instrumentation, and communicating results to the EOF. The first team, dispatched at 60 minutes, can effectively track any potential plume, and cover the necessary area to identify whether plume exists during the early stages of an event. The second team, dispatched at 90 minutes, will support continued plume tracking capability, as well as sampling activities.

Energy Harbor further stated that oversight and direction of the FMTs is provided by the FMT Coordinator in the EOF. This position maintains responsibility for radiological safety of the FMTs.

The NRC staff finds the augmentation of two FMT within 60 and 90 minutes of an Alert of higher ECL, respectively, supports the applicable PAR decision-makers in developing effective PARs and is consistent with the guidance provided in the Revised Table B-1.

Based on an evaluation of the changes described above, the NRC staff has determined that the proposed Beaver Valley EPP will continue to meet the planning standard 10 CFR 50.47(b)(2) and the requirements of Section IV.A to Appendix E of 10 CFR Part 50 regarding the offsite survey function.

#### Onsite (out of plant) and In-Plant Surveys

The Revised Table B-1 recommends one RP or Health Physics (HP) technician (for the purposes of this safety evaluation, RP and HP are used interchangeably) per unit for a multi-unit site and three additional RP technicians within 60 minutes and three additional RP technicians within 90 minutes of an Alert or higher classification, respectively. These additional RP technicians perform all of the required RP functions, which include onsite (out of plant) and in-plant surveys, as well as protective actions (in-plant).

The current Beaver Valley EPP has one RP technician on-shift to perform onsite surveys with two RP technician responding within 30 minutes and two additional RP technician responding within 60 minutes of declaring an Alert or higher ECL.

Energy Harbor stated that the proposed Beaver Valley EPP provides for one RP technician responding within 60 minutes and one RP technician responding within 90 minutes to perform onsite (out-of-plant) and in-plant surveys. The improvements in the plant computer systems, as it relates to the availability of plant data and trending analyses, has been extended to data associated with area radiation and plant process monitoring. The decision to provide RP coverage may be based on plant radiological conditions as indicated by installed area radiation monitors. During the initial stages of an accident, not all areas of the plant would be affected by releases of radioactive materials. Therefore, RP coverage would not be required for all areas. If RP coverage is deemed necessary, emergency teams can be covered by the on-shift and augmenting RP Technicians. In addition, installed area radiation monitors, which alarm locally and remotely at preset dose rates, are located throughout the plant.

The NRC staff finds that the improvements in-plant computer systems support the addition of one RP technician within 60 minutes and one RP technician within 90 minutes of an Alert or higher ECL, respectively, and is consistent with the guidance provided in the Revised Table B-1 and is acceptable.

Based on an evaluation of the changes described above, the NRC staff has determined that the proposed Beaver Valley EPP will continue to meet the planning standard 10 CFR 50.47(b)(2) and the requirements of Section IV.A to Appendix E of 10 CFR Part 50 regarding the onsite (out of plant) and in-plant surveys function.

### Chemistry/Radiochemistry

The chemistry/radiochemistry task was included under the Radiological Assessment function in NUREG-0654, Revision 1, but is not included in the Revised Table B-1 because the need for immediate reactor coolant sampling has been reduced due to the variety of plant indications of fuel damage available to the licensee.

The current Beaver Valley EPP identifies the chemistry/radiochemistry tasks as being performed by the on-shift chemistry technician. This position is augmented by another chemistry technician with a response time of 60 minutes.

The proposed Beaver Valley EPP revision eliminates the requirement for performance of the chemistry/radiochemistry function on-shift, as well as augmented staffing for performance of this function. Performance of the chemistry/radiochemistry function is being removed from the Beaver Valley EPP and will be maintained in accordance with site Technical Specifications.

As specified in the Revised Table B-1, the chemistry/radiochemistry function is no longer needed as the need for immediate reactor sampling has been reduced due to the variety of plant indications of fuel damage available to plant personnel.

The NRC staff finds the revision to remove the chemistry/radiochemistry function is consistent with the guidance in the Revised Table B-1 and is acceptable.

Based on an evaluation of the changes described above, the NRC staff has determined that the proposed Beaver Valley EPP continues to meet the planning standard 10 CFR 50.47(b)(2) and the requirements of Section IV.A to Appendix E of 10 CFR Part 50 regarding the chemistry/radiochemistry function.

### 3.2.5 Major Functional Area: Plant System Engineering, Repair, and Corrective Actions

#### Technical Support

The Revised Table B-1 identifies one on-shift Core/Thermal Hydraulics Engineer (typically filled by the STA), one Core/Thermal Hydraulics Engineer, one Electrical/Instrument and Controls (I&C) Engineer and one Mechanical Engineer to be available within 60 minutes of the declaration of an Alert or higher ECL.

The current Beaver Valley EPP identifies an on-shift STA responsible for core thermal hydraulics, a core hydraulic engineer augmenting within 30 minutes of the declaration of an Alert or higher ECL, and a Mechanical Engineer and Electrical Engineer augmenting within 60 minutes of the declaration of an Alert or higher ECL.

The proposed Beaver Valley EPP maintains the on-shift responsibility for performance of technical support activities as well as the 60-minute augmented response by the Electrical and Mechanical Engineers but extends the response time for the Core/Thermal Hydraulics Engineer from 30 to 60 minutes of the declaration of an Alert or higher ECL.

Energy Harbor stated that the Beaver Valley core damage assessment process uses a combination of core exit thermocouples and containment radiation readings to determine core status. This data is readily available for viewing and trending in the control room to assist in

rapidly assessing core conditions. The Beaver Valley dose assessment software also uses these data in the development of dose assessment and dose projection activities.

Energy Harbor further stated that initial reactor core stabilization activities are performed by the operations crew under the direction of the senior reactor operator or STA. Additionally, improvements in-plant computer systems provide for a reduction in burden for the performance of STA related activities on-shift. User-friendly displays and interfaces have been developed to increase the number of plant parameters that can be accessed through both the plant computer system and business network. These plant parameter displays also include real time data updates. Added programming capability graphical displays have also contributed to the STA's improved ability to monitor plant functions. Extending the response time for the core hydraulic engineer to 60 minutes of the declaration of an Alert or higher ECL does not adversely impact the technical support major task.

The NRC staff finds that due to the enhancements identified in Section 3.1 above, the revision in augmentation times for the Core/Thermal Hydraulics Engineer from 30 to 60 minutes of the declaration of an Alert or higher ECL and the response time for the Plant Technical Engineer from 30 to 90 minutes of the declaration of an Alert or higher ECL are consistent with the guidance in the Revised Table B-1 and are acceptable.

Based on an evaluation of the changes described above, the NRC staff has determined that the proposed Beaver Valley EPP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements of Section IV.A to Appendix E of 10 CFR Part 50 regarding the technical support function.

#### Repair and Corrective Actions

The Revised Table B-1 specifies that the following maintenance personnel should respond to the OSC to support Repair Team Activities:

- One electrician and one mechanic within 60 minutes of the declaration of an Alert or higher ECL to provide support for emergency core cooling system equipment (ECCS), event mitigation, and equipment repair.
- One I&C Technician within 90 minutes of the declaration of an Alert or higher ECL to provide assistance with logic manipulation, support for event mitigation and equipment repair, and support of digital I&C, if applicable.

The current Beaver Valley EPP specifies that the repair and corrective actions function is performed on-shift by a mechanical maintenance technician, an electrical maintenance technician and an I&C technician. These positions were augmented by an additional electrical maintenance technician and I&C technician within 30 minutes of the declaration of an Alert or higher ECL, and a mechanical maintenance technician, electrical maintenance technician and a radwaste operator (RWO) within 60 minutes of the declaration of an Alert or higher ECL, respectively.

The proposed Beaver Valley EPP would eliminate the on-shift repair team staffing, reduce the electrical maintenance technicians from two (2) to one (1), eliminate the RWO, and extend the response time for the I&C technician from 30 minutes to 90 minutes.

Additionally, the proposed Beaver Valley EPP provides for the following OSC augmented resources to the times as indicated in the table below:

<b>Position Title/Expertise</b>	<b>60-Minute Augmentation</b>	<b>90-Minute Augmentation</b>
Maintenance Coordinator / OSC Coordinator	1	Not Applicable (N/A)
RP Coordinator	1	N/A
Mechanical Personnel	1	N/A
Electrical Personnel	1	N/A
Mechanical Maintenance Coordinator	N/A	1
Electrical Maintenance Coordinator	N/A	1
I&C Coordinator	N/A	1
I&C Personnel	N/A	1

Energy Harbor stated that to support the objective of the single failure criteria, the Beaver Valley Unit 1 and Unit 2 ECCS incorporates a diverse and redundant system design. The design of the Beaver Valley Unit 1 ECCS includes an accumulator on each of the three (3) reactor coolant system cold legs, redundant safety injection charging pumps, a refueling water storage tank, a boron injection tank, and redundant low head safety injection pumps. The design of the Unit 2 ECCS includes an accumulator on each of the three (3) reactor coolant system cold legs, redundant high head safety injection charging pumps, a refueling water storage tank, redundant recirculation spray pumps, and redundant low head safety injection pumps. The ECCS trains of both units are separated electrically and mechanically to ensure no single failure on any one (1) train would preclude the other train from fulfilling the required safety function.

Energy Harbor stated that crediting the robust ECCS capability and protection against single point failures provides the basis for removal of references to maintenance activities from on-shift as well as the elimination of one (1) augmenting electrical maintenance technician, and the extension of augmentation response times for the I&C technician to 90 minutes.

Energy Harbor further stated that with respect to the removal of the RWO, during the completion of the on-shift staffing analysis, it was noted that there were no actions requiring response by the RWO for the first 90 minutes after event classification. Radiological waste processing would be performed by an auxiliary operator as part of its normal duties during the recovery phase of the event. The RWO is not required to operate or support maintenance of radwaste equipment in the Beaver Valley EOPs, abnormal operating instructions, emergency implementing procedures, or severe accident management guidelines. As a result, the proposed change to remove the RWO from the proposed Beaver Valley EPP would not result in a reduction of event response capability.

The NRC staff finds the availability of on-shift operators with the knowledge, skills, and abilities to perform all tasks that may be required to implement the Beaver Valley abnormal operating procedures and emergency operating procedures, the redundant and diverse emergency core cooling system design, and the proposed augmenting maintenance personnel is consistent with the guidance in the Revised Table B-1 and is acceptable.

Based on an evaluation of the changes described above, the NRC staff has determined that the proposed Beaver Valley EPP continues to meet planning standard 10 CFR 50.47(b)(2) and



the requirements of Section IV.A to Appendix E of 10 CFR Part 50 regarding the repair and corrective action function.

### 3.2.6 Major Functional Area: Protective Actions (In-Plant)

The Revised Table B-1 recommends one RP Technician per unit for a multi-unit site, and three additional RP Technicians within 60 minutes and three additional RP Technicians within 90 minutes of an Alert or higher classification, respectively. These additional RP Technicians perform the required RP functions, which include onsite (out-of-plant) and in-plant surveys, as well as protective actions (in-plant).

The purpose of the protective actions (in-plant) function is to: (1) provide qualified RP coverage for responders accessing potentially unknown radiological environments during emergency conditions; (2) provide in-plant surveys, and (3) control dosimetry and Radiologically Controlled Area access.

The current Beaver Valley EPP identifies the performance of the protective action functions as the duty of one of the two on-shift RP technicians and provides for augmentation by two HP technicians within 30 minutes and two RP technicians within 60 minutes from the declaration of an Alert or higher ECL.

The proposed Beaver Valley EPP maintains the second on-shift RP technician for performance of the protective actions (in-plant) function. The proposed Beaver Valley EPP changes the augmentation for two RP Technicians at 30 minutes to two RP Technicians at 60 minutes from the declaration of an Alert or higher ECL. The proposed Beaver Valley EPP further changes the augmentation for two RP Technicians at 60 minutes to two RP Technicians at 90 minutes from the declaration of an Alert or higher ECL. These RP Technician positions will continue to perform activities related to:

- Access Control/Dosimetry,
- Job coverage for repair and corrective actions, and
- Personnel monitoring.

Energy Harbor stated that issuance of electronic dosimeters, which are obtained prior to entry into radiologically controlled areas, would not require oversight by a RP technician. In addition to providing dose information, electronic dosimeter systems are used by personnel as a key to unlock turnstiles to allow access to a radiologically controlled area. Electronic area radiation monitoring provides updated real time information for limited areas that allows one RP technician to remotely monitor numerous locations. An extension of the response time for the RP personnel responsible for personnel monitoring/habitability coincides with the 60-minute activation time for ERF as described in the proposed Beaver Valley EPP.

The NRC staff finds the improved use of technology regarding access control and electronic area radiation monitoring, and the staffing of one on-shift RP technician, two RP technicians augmenting in 60 minutes, and two RP technicians augmenting in 90 minutes will not result in a loss of function or impact to the timing of the performance of protective actions and are consistent the guidance in the Revised Table B-1 and are acceptable.

Based on the evaluation described above, the NRC staff has determined that the proposed Beaver Valley EPP continues to meet planning standard 10 CFR 50.47(b)(2) and the



requirements of Section IV.A to Appendix E of 10 CFR Part 50 regarding the protective actions (in-plant) function.

### 3.2.7 Major Functional Area: Firefighting

The firefighting function was included in NUREG-0654, Revision 1, but is not included in the Revised Table B-1.

The current Beaver Valley EPP stated that the responsibility for the firefighting function is assigned to the on-shift fire brigade and augmented by the mutual aid Fire Plan.

Energy Harbor stated that the proposed Beaver Valley EPP removes firefighting from the Beaver Valley EPP Table 5.1, "Minimum On-Shift Staffing Requirements," and provides that the Beaver Valley firefighting function will be maintained as part of the Beaver Valley Fire Protection Plan.

Because Energy Harbor would continue to provide firefighting in accordance with applicable programs and is consistent with the Revised Table B-1 guidance, the NRC staff finds the proposed removal of the firefighting function from the proposed Beaver Valley EPP is acceptable.

Based on an evaluation of the changes described above, the NRC staff has determined that the proposed Beaver Valley EPP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements of Section IV.A to Appendix E of 10 CFR Part 50 regarding the firefighting function.

### 3.2.8 Major Functional Area: Rescue Operations and First-Aid

The rescue operations and first-aid functions were included in NUREG-0654, Revision 1, but are not included in the Revised Table B-1.

The current Beaver Valley EPP stated that the responsibility for performance of rescue and first aid tasks is assigned to the fire brigade and augmentation is provided through use of local support.

Energy Harbor is not proposing a change to the rescue operations and first-aid functional area at the Beaver Valley site. However, the proposed Beaver Valley EPP removes rescue operations and first-aid references from the Beaver Valley EPP Table 5.1.

Because Energy Harbor would continue to provide rescue operations and first-aid in accordance with applicable programs and is consistent with the Revised Table B-1 guidance, the NRC staff finds the proposed removal of the rescue operations and first-aid functions from the proposed Beaver Valley EPP is acceptable.

Based on an evaluation of the changes described above, the NRC staff has determined that the proposed Beaver Valley EPP continues to meet the planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A to Appendix E of 10 CFR Part 50 regarding the rescue operations and first-aid functions.

### 3.2.9 Major Functional Area: Site Access Control and Personnel Accountability

The site access control and personnel accountability functions were included in NUREG-0654, Revision 1, but are not included in the Revised Table B-1.

The current Beaver Valley EPP provides a note stating that on-shift nuclear security personnel are staffed per the Security Plan and refers to having one on-shift Security Shift Supervisor.

The proposed Beaver Valley EPP removes the reference of having one on-shift Security Shift Supervisor from the Beaver Valley EPP Table 5.1 but retains a TSC Security Coordinator as a 90-minute responder. In addition, Energy Harbor stated that security personnel per the Security Plan will continue to perform tasks associated with site access and personnel accountability. As such, Beaver Valley is not proposing a change to the use of on-shift security personnel in the Security Plan.

Because Energy Harbor would continue to provide site access control and personnel accountability in accordance with applicable programs and is consistent with the Revised Table B-1 guidance, the NRC staff finds the proposed removal of the site access control and personnel accountability functions from the proposed Beaver Valley EPP is acceptable.

Based on an evaluation of the changes described above, the NRC staff has determined that the proposed Beaver Valley EPP continues to meet the planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A to Appendix E of 10 CFR Part 50 regarding the site access control and personnel accountability functions.

### 3.3 ERO Change Summary

Energy Harbor provided a summary and evaluation of changes to the augmenting ERO by facility. The tables below illustrate these changes:

<b>EOF Position Changes</b>		
<b>Current Position</b>	<b>Proposed Position</b>	<b>Change</b>
Emergency/Recovery Manager	Emergency Director	Title change only
Assistant Emergency/Recovery Manager	EOF Manager	Title change only
Environmental Coordinator	FMT Coordinator	Title change only
Environmental Assessment and Dose Projection Coordinator	Dose Assessment Coordinator	Title change only
Communications and Records Coordinator (TSC)	State/Local Communicator (EOF)	Title change and relocation of the function to the EOF
EOF Operations Coordinator	EOF Operations Communicator	Title change only
None	Dose Assessor	New position
None	Health Physics Network Communicator	New position
Support Services Manager	None	<i>Deleted position</i>
Nuclear Communications Manager	None	<i>Deleted position</i>
Nuclear Communications Technical Advisor	None	<i>Deleted position</i>

Energy Harbor stated that removing the Support Services Manager is acceptable because that position serves as an administrative function in the EOF and does not perform emergency preparedness functions. The proposed change removes the position from the proposed Beaver Valley EPP but maintains the position in the site procedures.

Energy Harbor stated removing the Nuclear Communications Manager position in the EOF is acceptable because the Beaver Valley EPP previously utilized an incident response team designed to perform initial media response activities in advance of staffing the Joint Public Information Center (JPIC), which took place at the Site Area or General Emergency classification. The proposed change renames the JPIC as the Joint Information Center (JIC) and directs staffing at the Alert or higher classification, eliminating the need for a separate team to perform media response activities. Staffing of the JIC at the lower classification level allows for elimination of duplicate positions in the EOF tied to the incident response process and streamlines media response activities. Therefore, the proposed change eliminates the Nuclear Communications Manager position in the EOF and transitions responsibilities for the associated activities to the Nuclear Communications Coordinator in the JIC.

Energy Harbor stated that the proposed plan eliminates the Nuclear Communications Technical Advisor position in the EOF because the reassignment of technical and plant support activities to the TSC streamlines communications between ERFs. As a result, the JIC Nuclear Communications Coordinator will obtain needed information from the Technical Advisor in the JIC. The Technical Advisor in the JIC will be in contact with the Operations Communicator in the EOF and will be able to obtain any needed technical or plant status information via that communications link. These changes support continued performance of communications and

public relations information and no longer require a dedicated position in the EOF for performance of these functions. Therefore, there is no loss of capability associated with this function as a result of eliminating the Nuclear Communications Technical Advisor position.

<b>TSC Position Changes</b>		
<b>Current Position</b>	<b>Proposed Position</b>	<b>Change</b>
Emergency Director	Emergency Coordinator	Changed the title only
Assistant Emergency Director	TSC Manager	Changed the title only
Radiological Controls Coordinator	RP Coordinator	Changed the title only
Operations Communicator	ENS Communicator	Added new position to perform the ENS function
Technical Support Coordinator	None	<i>Deleted position</i>
Chemistry Coordinator	None	<i>Deleted position</i>
Computer Coordinator	None	<i>Deleted position</i>
Environmental Coordinator	None	<i>Deleted position</i>
Ohio Emergency Management Agency (EMA) Liaison	None	<i>Deleted position</i>

Energy Harbor stated that the elimination of the Technical Support Coordinator position is acceptable due to the responsibilities performed by this position will instead be performed by the core hydraulics, electrical and mechanical engineers in the TSC. The dedication of these three resources, as well as maintaining the Engineering Coordinator position as part of the proposed Beaver Valley EPP eliminates the need for the Technical Support Coordinator position.

The elimination of the chemistry coordinator position is acceptable because the chemistry activities at Beaver Valley are managed through department procedures as required by site Technical Specifications. This specific position does not perform emergency preparedness functions. As a result, this position is being removed from the ERO.

Energy Harbor stated that the elimination of the computer coordinator position is acceptable because plant condition information is readily available on computers in ERFs as well as other key areas of the site due to the upgraded computer systems at the site. With the increase accessibility of plant information, there is no longer a need for dedicated computer personnel to access plant status and relay the information manually. The site also has upgraded the Emergency Response Data System to Virtual Private Network (VPN) which allows for continuous access by the NRC. The action to verify the Emergency Response Data System link upon facility staffing will be assigned to the ENS Communicator, a position being added to the TSC.

The elimination of the environmental coordinator position is acceptable because the functions of this position will continue to be performed by the FMT coordinator within the EOF. Since the environmental monitoring function will not be performed in the TSC but now in the EOF under the proposed change, there is no longer a need for the Environmental Coordinator position.

Energy Harbor further stated that the elimination of the Ohio EMA Liaison is acceptable because communication with Ohio EMA is currently performed by positions in both the EOF and the TSC. The proposed change eliminates this position from the TSC and maintains responsibility for this communication by the EOF Offsite Agency Liaison via the EOF Operations Communicator.

<b>JIC Position Changes</b>		
<b>Current Position</b>	<b>Proposed Position</b>	<b>Change</b>
Chief Company Spokesperson	Company Spokesperson	Changed the title only
JPIC Manager	JIC Manager	Changed the title only
Information Manager	Information Coordinator	Changed the title only
Nuclear Communications Manager (EOF)	Nuclear Communications Coordinator	Changed the title, <i>combined positions and relocated the function to the JIC</i>
Nuclear Communications Writer		
JPIC Technical Advisor	JIC Technical Advisor	Changed the title <i>and eliminated Technical Briefer position</i>
Technical Briefer		
Media Monitor	Media Monitor/Rumor Control	Changed the title <i>and consolidated positions</i>
Rumor Control Coordinator		
Customer Services		
Media Contact	Media Relations Coordinator	Changed the title only
EMA Contact Representative	Logistics Coordinator	<i>Deleted position due to reassignment of responsibilities</i>
Engineering Communications Representative	None	<i>Deleted position</i>
Administrative Support	None	<i>Deleted position</i>
Security Coordinator	None	<i>Deleted position</i>

Energy Harbor stated that the proposed Beaver Valley EPP combines the Nuclear Communications Manager and Nuclear Communications Writer positions in the EOF and renamed the position as Nuclear Communications Coordinator and assigns the position to the JIC. This change aligns the JIC organization to the fleet standard. The re-assignment of technical and plant support activities to the TSC reduces the need for EOF leadership to provide technical information to the JIC. As a result, the Nuclear Communications coordinator is able to obtain needed information from the Technical Advisor in the JIC. Additionally, the Technical Advisor in the JIC will be in contact with the Operations Communicator in the EOF and able to obtain any needed technical or plant status information via that communications link.

Energy Harbor stated that the proposed Beaver Valley EPP combined several advisor and briefer functions in the JPIC. The existing JPIC Technical Advisor is responsible for providing interpretation and clarification of plant status and actions being taken to achieve plant stability and recovery and performs any necessary coordination and communication functions in the facility. Provision of technical information via the existing JPIC Technical Advisor, renamed "JIC Technical Advisor," adequately supports event response and so there is no loss of capability as a result of the proposed change.

Energy Harbor stated that improvements in JIC processes including the use of social media and internet capability for response to requests from the public have eliminated the need for dedicated Media Monitor, Rumor Control, and Media Contact positions in the JIC. Using available internet resources, the Media Monitor/Rumor Control position is able to monitor social and news media and report rumors to JIC Management.

Energy Harbor stated that the proposed Beaver Valley EPP re-assigns responsibility for coordination of facility support activities from the EMA Contact representative to the Logistics Coordinator and eliminates the EMA Contact Representative Coordinator position. Public Information Officer interfaces are an integral part of overall facility logistics and do not require interfacing with a dedicated resource in the JIC.

Energy Harbor stated that the elimination of the Engineering Communications Representative position is due to improvements in phone systems that have resulted in a more robust communication capability at the JIC. Therefore, an ERO resource dedicated to maintenance, set up and resolution of telecommunications issues is no longer needed.

Energy Harbor stated that the elimination of the Administrative Support function is acceptable because these functions will continue to be addressed in the site procedures. This function is not required for implementation of the Beaver Valley EPP requirements and as a result will be addressed in a lower tier document.

Energy Harbor further stated that the elimination of the Security Coordination position is acceptable because the initial Security Coordinator position is filled by the Supervisor, Nuclear Security in the Central Alarm Station. The person in this position is relieved by the Security Coordinator in the TSC who is responsible for ensuring appropriate plant security posture, oversight of the site assembly process, provision of access to the site for offsite emergency response personnel, and oversight of ERF sign-in processes. Therefore, as proposed, the functions of the JPIC Security Coordinator position will be maintained in the TSC per site security procedures.

The NRC staff reviewed the respective facilities' ERO task disposition and assessment for positions removed from the proposed Beaver Valley EPP and finds the changes proposed for the TSC, EOF and JIC are acceptable.

Based on the evaluations described above for each function, the NRC staff determined that the proposed Beaver Valley EPP continues to meet the planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A to Appendix E of 10 CFR Part 50.

### 3.4 Summary

Based on a technical and regulatory review of the proposed changes to the Beaver Valley EPP, the NRC staff finds that the proposed Beaver Valley EPP, as changed, continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements of Section IV.A to Appendix E of 10 CFR Part 50 and provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

#### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the officials of the Commonwealth of Pennsylvania and States of West Virginia and Ohio were notified of the proposed issuance of the amendments on January 4, 2022. The officials had no comments.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments change the site emergency preparedness plan. The amendments relate, in part, to changes in recordkeeping, reporting, or administrative procedures or requirements. The amendments also relate, in part, to changing requirements with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, published in the *Federal Register* on November 30, 2021 (86 FR 67984). A corrected notice was published on January 12, 2022 (87 FR 1793), because the first *Federal Register* notice listed the year of the application incorrectly. There has been no public comment on such finding. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

#### 6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

#### 7.0 REFERENCES

1. Energy Harbor Nuclear Corp. letter to U.S. Nuclear Regulatory Commission, "Emergency Plan Amendment Request," dated June 14, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21167A209).
2. Energy Harbor Nuclear Corp. letter to U.S. Nuclear Regulatory Commission, "Acceptance Review Supplemental Information for Emergency Plan Amendment Request (EPID L-2021-LLA-0127)," dated July 27, 2021 (ADAMS Accession No. ML21208A194).
3. Regulatory Guide 1.101, Revision 2, "Emergency Planning and Preparedness for Nuclear Power Reactors," dated October 1981 (ADAMS Accession No. ML090440294).
4. NUREG-0654/FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," dated November 1980 (ADAMS Accession No. ML040420012).

5. U.S. Nuclear Regulatory Commission, NSIR/DPR-ISG-01, "Interim Staff Guidance-Emergency Planning for Nuclear Power Plants," dated November 20, 2011 (ADAMS Accession No. ML113010523).
6. NEI 10-05, Revision 0, "Assessment of On-Shift Emergency Response Organization Staffing and Capabilities," dated June 2011 (ADAMS Accession No. ML111751698).
7. Kahler, R., U.S. Nuclear Regulatory Commission, letter to Susan Perkins-Grew, Nuclear Energy Institute, "Alternative Guidance for Licensee Emergency Response Organizations," dated June 12, 2018 (ADAMS Accession No. ML18022A352).

Principal Contributor: E. Robinson, NSIR/DPR

Dated: September 1, 2022



SUBJECT: BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2 - CORRECTION OF ERRORS IN SAFETY EVALUATION ASSOCIATED WITH LICENSE AMENDMENT NOS. 315 AND 205 REGARDING CHANGES TO THE EMERGENCY PREPAREDNESS PLAN (EPID L-2021-LLA-0127) DATED SEPTEMBER 1, 2022

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