



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

ENERGY HARBOR NUCLEAR CORP.

ENERGY HARBOR NUCLEAR GENERATION LLC

DOCKET NO. 50-334

BEAVER VALLEY POWER STATION, UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. XXX
Renewed License No. DPR-66

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Energy Harbor Nuclear Corp., acting on its own behalf and as agent for Energy Harbor Nuclear Generation LLC* (the licensees), dated April 14, 2023, as supplemented by letters dated April 20, 2023, August 7, 2023, and September 12, 2023, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I.
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

* Energy Harbor Nuclear Corp. is authorized to act as agent for Energy Harbor Nuclear Generation LLC and has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

2. Accordingly, Renewed Facility Operating License No. DPR-66 is hereby amended as indicated in the attachment to this license amendment.
3. This license amendment is effective as of the date of its issuance and shall be implemented within 7 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Andrea D. Veil, Director
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Renewed Facility
Operating License

Date of Issuance:

DRAFT

ATTACHMENT TO LICENSE AMENDMENT NO. XXX

BEAVER VALLEY POWER STATION, UNIT NO. 1

RENEWED FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

Replace the following pages of the Renewed Facility Operating License and Appendix C, Additional Conditions, with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Renewed Facility Operating License

Remove

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Appendix C, Additional Conditions

Remove

Page C-1
Page C-2
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Page C-4
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Insert

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

VISTRA OPERATIONS COMPANY LLC

ENERGY HARBOR NUCLEAR GENERATION LLC

DOCKET NO. 50-334

BEAVER VALLEY POWER STATION, UNIT NO. 1

RENEWED FACILITY OPERATING LICENSE

License No. DPR-66

1. The Nuclear Regulatory Commission (the Commission) having found that:
 - A. The application to renew Facility Operating License No. DPR-66 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of the Beaver Valley Power Station, Unit No. 1 (facility), has been substantially completed in conformity with Construction Permit No. CPPR-75 and the application, as amended, the provisions of the Act and the rules and regulations of the Commission;
 - C. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - D. There is reasonable assurance: (i) that the activities authorized by this renewed operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission;
 - E. Vistra Operations Company LLC is technically qualified and the licensees* are financially qualified to engage in the activities authorized by this renewed operating license in accordance with the rules and regulations of the Commission;
 - F. The licensees have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;

* Vistra Operations Company LLC is authorized to act as agent for Energy Harbor Nuclear Generation LLC (collectively, the licensees) and has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

- G. The issuance of this renewed operating license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Renewed Facility Operating License No. DPR-66 is in accordance with 10 CFR Part 51 (formerly Appendix D of 10 CFR Part 50) of the Commission's regulations and all applicable requirements have been satisfied; and
 - I. The receipt, possession, and use of source, by-product, and special nuclear material as authorized by this renewed operating license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40, and 70, including 10 CFR Sections 30.33, 40.32, 70.23, and 70.31.
 - J. Actions have been identified and have been or will be taken with respect to: (1) managing the effects of aging on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1) during the period of extended operation, and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by this renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3 for the facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations;
2. Renewed Facility Operating License No. DPR-66 is hereby issued to Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC to read as follows:
- A. This renewed license applies to the Beaver Valley Power Station, Unit No. 1, a pressurized water nuclear reactor and associated equipment (the facility), owned by Energy Harbor Nuclear Generation LLC, and operated by Vistra Operations Company LLC. The facility is located in Beaver County, Pennsylvania, on the southern shore of the Ohio River, and is described in the "Updated Final Safety Analysis Report" as supplemented and amended and the Environmental Report as supplemented and amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
 - (1) Vistra Operations Company LLC, pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility, and Energy Harbor Nuclear Generation LLC to possess the facility at the designated location in Beaver County, Pennsylvania in accordance with the procedures and limitations set forth in this renewed license;
 - (2) Vistra Operations Company LLC, pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Updated Final Safety Analysis Report, as supplemented and amended;

- (3) Vistra Operations Company LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
 - (4) Vistra Operations Company LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components;
 - (5) Vistra Operations Company LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter 1: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
- (1) Maximum Power Level
Vistra Operations Company LLC is authorized to operate the facility at a steady state reactor core power level of 2900 megawatts thermal.
 - (2) Technical Specifications
The Technical Specifications contained in Appendix A, as revised through Amendment No. 321, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.
 - (3) Auxiliary River Water System
(Deleted by Amendment No. 8)

(3) Less Than Three Loop Operation

Deleted per License Amendment No. 239 .

(4) Steam Generator Water Rise Rate

Deleted per License Amendment No. 24.

(5) Fire Protection Program

Vistra Operations Company LLC shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the license amendment request dated December 23, 2013 (as supplemented by letters dated February 14, 2014; April 27, May 27, June 26, November 6, and December 21, 2015; February 24 and May 12, 2016; and January 30, April 21, June 23, August 22, October 25, and November 29, 2017), and as approved in the safety evaluation dated January 22, 2018. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c), and provided no other regulation, technical specification, license condition, or requirement would require prior NRC approval, the licensee may make changes to the fire protection program without prior approval of the Commission if those changes satisfy the provisions set forth in 10 CFR 50.48(a) and 10 CFR 50.48(c), the change does not require a change to a technical specification or a license condition, and the criteria listed below are satisfied.

(a) Risk-Informed Changes that May Be Made Without Prior NRC Approval

A risk assessment of the change must demonstrate that the acceptance criteria below are met. The risk assessment approach, methods, and data shall be acceptable to the NRC and shall be appropriate for the nature and scope of the change being evaluated; be based on the as-built, as-operated, and maintained plant; and reflect the operating experience at the plant.

Acceptable methods to assess the risk of the change may include methods that have been used in the peer-reviewed fire PRA model, methods that have been approved by NRC through a plant-specific license amendment or NRC approval of generic methods specifically for use in NFPA 805 risk assessments, or methods that have been demonstrated to bound the risk impact.

1. Prior NRC review and approval is not required for a change that results in a net decrease in risk. The proposed change must also be consistent with the defense-in-depth philosophy and must maintain sufficient safety margins. The change may be implemented following completion of the plant change evaluation.

2. Fire Protection Program Changes that Have No More than Minimal Risk Impact

Prior NRC review and approval are not required for changes to the licensee's fire protection program that have been demonstrated to have no more than a minimal risk impact.

The licensee may use its screening process as approved in the NRC SE dated January 22, 2018, to determine that certain fire protection program changes meet the minimal criterion.

The licensee shall ensure that fire protection defense-in-depth and safety margins are maintained when changes are made to the fire protection program.

(c) Transition License Conditions

1. Before achieving full compliance with 10 CFR 50.48(c), as specified by (2) below, risk-informed changes to the licensee's fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in (2) above.
2. The licensee shall implement the Unit 1 modifications to its facility, as described in Attachment S, Table S-2, "Plant Modifications Committed," in FENOC letter L-17-122, dated April 21, 2017, to complete the transition to full compliance with 10 CFR 50.48(c), by the completion of the second Unit 1 refueling outage after issuance of the safety evaluation. The licensee shall maintain appropriate compensatory measures in place until completion of these modifications.
3. The licensee shall implement the items listed in Attachment S, Table S-3, "Implementation Items," of FENOC letter L-17-268, dated August 22, 2017, by 12 months after issuance of the safety evaluation (with the exception of Items BV1-1633, BV1-2974, BV1-3060, BV1-3108, BV1- 3109, BV2-1580, BV2-1622, BV2-1623, and BV2-1750, which are to be completed by the end of the second Unit 2 refueling outage after issuance of the safety evaluation).

(6) Systems Integrity

Vistra Operations Company LLC shall implement a program to reduce leakage from systems outside containment that would or could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. This program shall include the following:

1. Provisions establishing preventive maintenance and periodic visual inspection requirements, and
2. Integrated leak test requirements for each system at a frequency not to exceed refueling cycle intervals.

(7) Iodine Monitoring

Vistra Operations Company LLC shall implement a program which will ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This program shall include the following:

1. Training of personnel,
2. Procedures for monitoring, and
3. Provisions for maintenance of sampling and analysis equipment.

(8) Backup Method for Determining Subcooling Margin

Vistra Operations Company LLC shall implement a program which will ensure the capability to accurately monitor the Reactor Coolant System subcooling margin. This program shall include the following:

1. Training of personnel, and
2. Procedures for monitoring.

(9) Steam Generator Surveillance Interval Extension

Deleted per License Amendment No. 278.

(10) Additional Conditions

The Additional Conditions contained in Appendix C, as revised through Amendment No. XXX, are hereby incorporated into this license. Vistra Operations Company LLC shall operate the facility in accordance with the Additional Conditions.

(11) Mitigation Strategy License Condition

The licensee shall develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

- (a) Fire fighting response strategy with the following elements:
 1. Pre-defined coordinated fire response strategy and guidance
 2. Assessment of mutual aid fire fighting assets
 3. Designated staging areas for equipment and materials
 4. Command and control
 5. Training of response personnel

(b) Operations to mitigate fuel damage considering the following:

1. Protection and use of personnel assets
2. Communications
3. Minimizing fire spread
4. Procedures for implementing integrated fire response strategy
5. Identification of readily-available pre-staged equipment
6. Training on integrated fire response strategy
7. Spent fuel pool mitigation measures

(c) Actions to minimize release to include consideration of:

1. Water spray scrubbing
2. Dose to onsite responders

D. Physical Protection

Vistra Operations Company LLC shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contains Safeguards Information protected under 10 CFR 73.21 is entitled: "Beaver Valley Power Station (BVPS) Physical Security Plan" submitted by letter September 9, 2004, and supplemented September 30, 2004, October 14, 2004, and May 12, 2006.

Vistra Operations Company LLC shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The Beaver Valley Power Station CSP was approved by License Amendment No. 287, and amended by License Amendment No. 295.

E. All work and activities in connection with this project shall be performed pursuant to the provisions of the Commonwealth of Pennsylvania Clean Streams Acts of June 24, 1913, as amended and of June 22, 1937, as amended, and in accordance with all permits issued by the Department of Environmental Resources of the Commonwealth of Pennsylvania.

F. License Renewal Commitments – The UFSAR supplement, as revised, submitted pursuant to 10 CFR 54.21(d), describes certain future activities to be completed prior to and/or during the period of extended operation. Vistra Operations Company LLC shall complete these activities in accordance with Appendix A of NUREG-1929, Safety Evaluation Report Related to the Beaver Valley Power Station, Units 1 and 2, dated October 2009, and Supplement 1 of NUREG-1929, dated October 2009, and shall notify the NRC in writing when activities to be completed prior to the period of extended operation are complete and can be verified by NRC inspection.

- G. UFSAR Supplement Changes – The information in the UFSAR supplement, as revised, submitted pursuant to 10 CFR54.21(d), shall be incorporated into the UFSAR as required by 10 CFR 50.71(e) following the issuance of this renewed operating license. Until that update is complete, Vistra Operations Company LLC may not make changes to the information in the supplement. Following incorporation into the UFSAR, the need for prior Commission approval of any changes will be governed by 10 CFR 50.59.
- H. Capsule Withdrawal Schedule – For the renewed operating license term, all capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of American Society for Testing and Materials (ASTM) E 185-82 to the extent practicable for the configuration of the specimens in the capsule. Any changes to the capsule withdrawal schedule, including spare capsules, must be approved by the NRC prior to implementation.
- I. Containment Liner Volumetric Inspection –
- a) If degradation (greater than 10 percent of the nominal thickness not attributable to fabrication/erection practices) is identified in the non-random areas examined using ultrasonic testing (UT) as described in Supplement 1 of NUREG-1929, UT examinations shall be performed at additional non-random areas, to be selected based on this operating experience. Should additional degradation be identified, additional non-random areas shall be UT examined until no further degradation (greater than 10 percent of the nominal thickness) is identified. All areas with degradation shall be reexamined over at least the next three successive inspection periods to ensure that progression of the degradation is not occurring.
 - b) If degradation (greater than 10 percent of the nominal thickness not attributable to fabrication/erection practices) is identified in the random samples examined using ultrasonic testing (UT) as described in Supplement 1 of NUREG 1929, UT examinations shall be performed on additional random samples, to ensure a 95 percent confidence that 95 percent of the unexamined accessible containment liner is not degraded. If additional degradation is identified, the sample size for UT examinations shall be further expanded until the statistical sampling has achieved the 95 percent confidence goal described previously. All areas with degradation shall be reexamined over at least the next three successive inspection periods to ensure that progression of the degradation is not occurring.
3. This renewed operating license is effective as of the date of issuance and shall expire at midnight on January 29, 2036.

FOR THE NUCLEAR REGULATORY COMMISSION

ORIGINAL SIGNED BY:

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Attachments:

1. Appendix A - Technical Specifications
2. Appendix C - Additional Conditions

Date of Issuance: November 05, 2009

APPENDIX C

ADDITIONAL CONDITIONS
OPERATING LICENSE NO. DPR-66

Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Condition	Implementation Date
202	The licensee is authorized to relocate certain Technical Specification requirements to licensee-controlled documents. Implementation of this amendment shall include the relocation of these technical specification requirements to the appropriate documents, as described in the licensee's application dated September 9, 1996, and evaluated in the staff's safety evaluation attached to this amendment.	The amendment shall be implemented within 60 days from April 14, 1997
209	The licensee is authorized to relocate certain Technical Specification requirements to licensee-controlled documents. Implementation of this amendment shall include the relocation of these technical specification requirements to the appropriate documents, as described in the licensee's application dated March 14, 1997, as supplemented July 29 and August 13, 1997, and evaluated in the staff's safety evaluation attached to this amendment.	The amendment shall be implemented within 60 days from December 10, 1997
210	The licensee is authorized to relocate certain Technical Specification requirements to licensee-controlled documents. Implementation of this amendment shall include the relocation of these technical specification requirements to the appropriate documents, as described in the licensee's application dated September 11, 1997, and evaluated in the staff's safety evaluation attached to this amendment.	The amendment shall be implemented within 30 days from January 20, 1998

APPENDIX CADDITIONAL CONDITIONS
OPERATING LICENSE NO. DPR-66

Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Condition	Implementation Date
225	The licensee is authorized to relocate certain Technical Specification requirements to licensee-controlled documents. Implementation of this amendment shall include the relocation of these Technical Specification requirements to the appropriate documents as described in the licensee's application dated December 24, 1998, as supplemented June 15, June 17, and July 7, 1999, and evaluated in the staff's safety evaluation attached to this amendment.	The amendment shall be implemented within 60 days from August 30, 1999
269	On the closing date(s) of the transfers to FENGenCo* of their interests in Beaver Valley Power Station, Unit No. 1, Pennsylvania Power Company and Ohio Edison Company shall transfer to FENGenCo* all of each transferor's respective accumulated decommissioning funds for Beaver Valley Power Station, Unit No. 1, and tender to FENGenCo* additional amounts equal to remaining funds expected to be collected in 2005, as represented in the application dated June 1, 2005, but not yet collected by the time of closing. All of the funds shall be deposited in a separate external trust fund for the reactor in the same amount as received with respect to the unit to be segregated from other assets of FENGenCo* and outside its administrative control, as required by NRC regulations, and FENGenCo* shall take all necessary steps to ensure that this external trust fund is maintained in accordance with the requirements of the order approving the transfer of the license and consistent with the safety evaluation supporting the order and in accordance with the requirements of 10 CFR Section 50.75, "Reporting and recordkeeping for decommissioning planning."	The amendment shall be implemented within 30 days from December 16, 2005

* FirstEnergy Nuclear Generation Corp. (FENGenCo) has been renamed Energy Harbor Nuclear Generation LLC.

APPENDIX CADDITIONAL CONDITIONS
OPERATING LICENSE NO. DPR-66

Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Condition	Implementation Date
269	<p>By the date of closing of the transfer of the ownership interests in Beaver Valley Power Station, Unit No. 1 from Pennsylvania Power Company to FENGenCo*, FENGenCo* shall obtain a parent company guarantee from FirstEnergy in an initial amount of at least \$80 million (in 2005 dollars) to provide additional decommissioning funding assurance regarding such ownership interests. Required funding levels shall be recalculated annually and, as necessary, FENGenCo* shall either obtain appropriate adjustments to the parent company guarantee or otherwise provide any additional decommissioning funding assurance necessary for FENGenCo* to meet NRC requirements under 10 CFR 50.75.</p> <p>The Support Agreements described in the applications dated May 18, 2005 (up to \$80 million), and June 1, 2005 (up to \$400 million), shall be effective consistent with the representations contained in the applications. FENGenCo* shall take no action to cause FirstEnergy, or its successors and assigns, to void, cancel, or modify the Support Agreements without the prior written consent of the NRC staff, except, however, the \$80 million Support Agreement in connection with the transfer of the Pennsylvania Power Company interests may be revoked or rescinded if and when the \$400 million support agreement described in the June 1, 2005, application becomes effective. FENGenCo* shall inform the Director of the Office of Nuclear Reactor Regulation, in writing, no later than ten days after any funds are provided to FENGenCo* by FirstEnergy under either Support Agreement.</p>	The amendment shall be implemented within 30 days from December 16, 2005

* FirstEnergy Nuclear Generation Corp. (FENGenCo) has been renamed Energy Harbor Nuclear Generation LLC.

APPENDIX CADDITIONAL CONDITIONS
OPERATING LICENSE NO. DPR-66

Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Condition	Implementation Date
278	<u>Schedule for New and Revised Surveillance Requirements (SRs)</u> The schedule for performing SRs that are new or revised in Amendment No. 278 shall be as follows: For SRs that are new in this amendment, the first performance is due at the end of the first surveillance interval, which begins on the date of implementation of this amendment. For SRs that existed prior to this amendment, whose intervals of performance are being reduced, the first reduced surveillance interval begins upon completion of the first surveillance performed after implementation of this amendment. For SRs that existed prior to this amendment, whose intervals of performance are being extended, the first extended surveillance interval begins upon completion of the last surveillance performed prior to implementation of this amendment. For SRs that existed prior to this amendment that have modified acceptance criteria, the first performance subject to the modified acceptance criteria is due at the end of the first surveillance interval that began on the date the surveillance was last performed prior to the implementation of this amendment.	The amendment shall be implemented within 150 days from date of issuance
278	<u>Relocation of Certain Technical Specification Requirements</u> License Amendment No. 278 authorizes the relocation of certain Technical Specifications to other licensee-controlled documents. Implementation of this amendment shall include relocation of the requirements to the specified documents, as described in (1) Sections 4D and 4E of the NRC staff's Safety Evaluation, and (2) Table LA, Removed Detail Changes, and Table R, Relocated Specifications, attached to the NRC staff's Safety Evaluation, which is enclosed in this amendment.	The amendment shall be implemented within 150 days from date of issuance

APPENDIX CADDITIONAL CONDITIONS
OPERATING LICENSE NO. DPR-66

Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Condition	Implementation Date
281	<u>Initial Performance of New Surveillance and Assessment Requirements</u>	The amendment shall be implemented within 120 days from date of issuance
	Upon implementation of Amendment No. 281 adopting TSTF-448, Revision 3, the determination of control room envelope (CRE) unfiltered air leakage as required by Surveillance Requirement (SR) 3.7.10.4, in accordance with Specification 5.5.14.c(i), the assessment of CRE habitability as required by Specification 5.5.14.c(ii), and the measurement of CRE pressure as required by Specification 5.5.14.d, shall be considered met. Following implementation:	
	<ul style="list-style-type: none"> (a) The first performance of SR 3.7.10.4, in accordance with Specification 5.5.14.c(i), shall be within the specified Frequency of 6 years, plus the 18-month allowance of SR 3.0.2, as measured from the date of the most recent successful tracer gas test, or within the next 18 months if the time period since the most recent successful tracer gas test is greater than 6 years. (b) The first performance of the periodic assessment of CRE habitability, Specification 5.5.14.c(ii), shall be within 3 years, plus the 9-month allowance of SR 3.0.2, as measured from the date of the most recent successful tracer gas test, or within the next 9 months if the time period since the most recent successful tracer gas test is greater than 3 years. (c) The first performance of the periodic measurement of CRE pressure, Specification 5.5.14.d, shall be within 18 months, plus the 138 days allowed by SR 3.0.2, as measured from the date of the most recent successful pressure measurement test. 	

APPENDIX CADDITIONAL CONDITIONS
OPERATING LICENSE NO. DPR-66

Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Condition	Implementation Date
304	<p>Based on the Commission's approval regarding the change in the parent company issuing a \$400 million Support Agreement to Energy Harbor Nuclear Generation LLC, Energy Harbor Nuclear Generation LLC shall comply with the conditions noted below. This \$400 million Support Agreement supersedes all previous parent support agreements.</p> <p>A. The Support Agreement in the amount of \$400 million described in the application dated April 26, 2019, is effective. Energy Harbor Nuclear Generation LLC shall take no action to void, cancel, or modify the Support Agreement without the prior written consent of the NRC staff. Energy Harbor Nuclear Generation LLC shall inform the Director of the Office of Nuclear Reactor Regulation, in writing, no later than 10 working days after any funds are provided to Energy Harbor Nuclear Generation LLC by Energy Harbor Corp. under the terms of the Support Agreement.</p>	<p>The amendment shall be implemented within 7 days from date of issuance</p>
306	<p>B. Deleted.</p> <p>C. Deleted.</p>	
XXX	<p>Based on the Commission's approval regarding the change in the parent company issuing a \$400 million Support Agreement to Energy Harbor Nuclear Generation LLC, Energy Harbor Nuclear Generation LLC shall comply with the conditions noted below. This \$400 million Support Agreement supersedes all previous parent support agreements.</p> <p>A. The Support Agreement in the amount of \$400 million described in the application dated April 14, 2023, is effective. Energy Harbor Nuclear Generation LLC shall take no action to void, cancel, or modify the Support Agreement without the prior written consent of the NRC staff. Energy Harbor Nuclear Generation LLC shall inform the Director of the Office of Nuclear Reactor Regulation, in writing, no later than 10 working days after any funds are provided to Energy Harbor Nuclear Generation LLC by Vistra Operations Company LLC under the terms of the Support Agreement.</p>	<p>The amendment shall be implemented within 7 days from date of issuance</p>

APPENDIX CADDITIONAL CONDITIONS
OPERATING LICENSE NO. DPR-66

Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Condition	Implementation Date
XXX	Vistra Operations Company LLC shall provide to the Director of the Office of Nuclear Reactor Regulation or the Director of the Office of Nuclear Material Safety and Safeguards, as applicable, a copy of any application, at the time it is filed, to transfer (excluding grants of security interests or liens) from Vistra Operations Company LLC to its direct or indirect parent, or to any other affiliated company, facilities for the production, transmission, or distribution of electric energy having a depreciated book value exceeding ten percent (10%) of Vistra Operations Company LLC's consolidated net utility plant, as recorded on Vistra Operations Company LLC's books of account.	The amendment shall be implemented within 7 days from date of issuance



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

ENERGY HARBOR NUCLEAR CORP.

ENERGY HARBOR NUCLEAR GENERATION LLC

DOCKET NO. 50-412

BEAVER VALLEY POWER STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. XXX
Renewed License No. NPF-73

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Energy Harbor Nuclear Corp., acting on its own behalf and as agent for Energy Harbor Nuclear Generation LLC* (the licensee), dated April 14, 2023, as supplemented by letters dated April 20, 2023, August 7, 2023, and September 12, 2023, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I.
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

* Energy Harbor Nuclear Corp. is authorized to act as agent for Energy Harbor Nuclear Generation LLC and has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

2. Accordingly, Renewed Facility Operating License No. NPF-73 is hereby amended as indicated in the attachment to this license amendment.
3. This license amendment is effective as of the date of its issuance and shall be implemented within 7 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Andrea D. Veil, Director
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Renewed Facility
Operating License

Date of Issuance:

DRAFT

ATTACHMENT TO LICENSE AMENDMENT NO. XXX

BEAVER VALLEY POWER STATION, UNIT 2

RENEWED FACILITY OPERATING LICENSE NO. NPF-73

DOCKET NO. 50-412

Replace the following pages of the Renewed Facility Operating License, Appendix B, Environmental Protection Plan (Nonradiological), and Appendix D, Additional Conditions, with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Renewed Facility Operating License

Remove

Page 1
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Insert

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Appendix B, Environmental Protection Plan (Nonradiological)

Remove

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Appendix D, Additional Conditions

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

VISTRA OPERATIONS COMPANY LLC
ENERGY HARBOR NUCLEAR GENERATION LLC
DOCKET NO. 50-412
BEAVER VALLEY POWER STATION, UNIT 2
RENEWED FACILITY OPERATING LICENSE

License No. NPF-73

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application to renew Facility Operating License No. NPF-73 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of the Beaver Valley Power Station, Unit 2 (the facility), has been substantially completed in conformity with Construction Permit No. CPPR-105 and the application, as amended, the provisions of the Act, and the regulations of the Commission;
 - C. The facility will operate in conformity with the application, the provisions of the Act, and the regulations of the Commission (except as exempted from compliance in Section 2.D. below);
 - D. There is reasonable assurance: (i) that the activities authorized by this renewed operating license can be conducted without endangering the health and safety of the public and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D. below);

Amendment No. XXX
Renewed Operating License NPF-73

- E. Vistra Operations Company LLC is technically qualified to engage in the activities authorized by this renewed operating license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
 - F. The licensees have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - G. The issuance of this renewed operating license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this Renewed Operating License No. NPF-73 is subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations, and all applicable requirements have been satisfied;
 - I. The receipt, possession and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40, and 70.
 - J. Actions have been identified and have been or will be taken with respect to: (1) managing the effects of aging on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1) during the period of extended operation, and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by this renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3 for the facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations;
2. Renewed Facility Operating License NPF-73 is hereby issued to Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC (the licensees) to read as follows:
- A. This renewed license applies to the Beaver Valley Power Station, Unit 2, a pressurized water reactor and associated equipment (the facility), owned by Energy Harbor Nuclear Generation LLC (owner) and operated by Vistra Operations Company LLC (collectively the licensees). The facility is located on the licensees' site on the southern shore of the Ohio River in Beaver County, Pennsylvania, approximately 22 miles northwest of Pittsburgh and 5 miles east of East Liverpool, Ohio, and is described the Updated Final Safety Analysis Report, as supplemented and amended, and in its Environmental Report, as supplemented and amended;
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
 - (1) Pursuant to Section 103 of the Act and 10 CFR Part 50, Vistra Operations Company LLC to possess, use, and operate the facility at the designated location in Beaver County, Pennsylvania, in accordance with the procedures and limitations set forth in this license;

- (2) Pursuant to the Act and 10 CFR Part 50, Energy Harbor Nuclear Generation LLC to possess the facility at the designated location in Beaver County, Pennsylvania, in accordance with the procedures and limitations set forth in the license;
- (3) Pursuant to the Act and 10 CFR Part 70, Vistra Operations Company LLC to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Updated Final Safety Analysis Report, as supplemented and amended;
- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, Vistra Operations Company LLC to receive, possess, and use at any time any byproduct, source, and special nuclear material such as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (5) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, Vistra Operations Company LLC to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or other activity associated with radioactive apparatus or components;
- (6) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, Vistra Operations Company LLC to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility authorized herein.
- (7) Deleted

C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations set forth in 10 CFR Chapter 1 and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

Vistra Operations Company LLC is authorized to operate the facility at a steady state reactor core power level of 2900 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 211, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto are hereby incorporated in the license. Vistra Operations Company LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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(8) Detailed Control Room Design Review (DCRDR)

Deleted

(9) Safety Parameter Display System (SPDS)

Deleted

(10) Fire Protection Modifications (Section 9.5.1 of SER Supplement 6)

Deleted

(11) Additional Conditions

The Additional Conditions contained in Appendix D, as revised through Amendment No. XXX, are hereby incorporated into this license. Vistra Operations Company LLC shall operate the facility in accordance with the Additional Conditions.

(12) Steam Generator Surveillance Interval Extension

Deleted

(13) Mitigation Strategy License Condition

The licensee shall develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

- (a) Fire fighting response strategy with the following elements:
 - 1. Pre-defined coordinated fire response strategy and guidance
 - 2. Assessment of mutual aid fire fighting assets
 - 3. Designated staging areas for equipment and materials
 - 4. Command and control
 - 5. Training of response personnel

- (b) Operations to mitigate fuel damage considering the following:
 - 1. Protection and use of personnel assets
 - 2. Communications
 - 3. Minimizing fire spread
 - 4. Procedures for implementing integrated fire response strategy
 - 5. Identification of readily-available pre-staged equipment
 - 6. Training on integrated fire response strategy
 - 7. Spent fuel pool mitigation measures

- (c) Actions to minimize release to include consideration of:
 - 1. Water spray scrubbing
 - 2. Dose to onsite responders

- (2) The facility requires an exemption from the requirements of 10 CFR 50, Appendix J, Section III.D.2(b)(ii). The justification of this exemption is contained in Section 6.2.6 of Supplement 5 to the Safety Evaluation Report and modified by a letter dated July 26, 1995. The staff's environmental assessment was published on May 12, 1987 (52 FR 17651) and on June 9, 1995 (60 FR 30611). Therefore, pursuant to 10 CFR 50.12(a)(1) and 10 CFR 50.12(a)(2)(ii) and (iii), Beaver Valley Power Station, Unit 2 is exempt from the quoted requirements and instead, is required to perform the overall air lock leak test at pressure P_a before establishing containment integrity if air lock maintenance has been performed that could affect the air lock sealing capability. Local leak rate testing at a pressure of not less than P_a may be substituted for an overall air lock test where the design permits.

E. Physical Security

Vistra Operations Company LLC shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contains Safeguards Information protected under 10 CFR 73.21 is entitled: "Beaver Valley Power Station (BVPS) Physical Security Plan" submitted by letter September 9, 2004, and supplemented September 30, 2004, October 14, 2004, and May 12, 2006.

Vistra Operations Company LLC shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The Beaver Valley Power Station CSP was approved by License Amendment No. 174, and amended by License Amendment No. 183.

F. Fire Protection Program

Vistra Operations Company LLC shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c) as specified in the license amendment request dated December 23, 2013, (as supplemented by letters dated February 14, 2014; April 27, May 27, June 26, November 6, and December 21, 2015; February 24 and May 12, 2016; and January 30, April 21, June 23, August 22, October 25, and November 29, 2017), and as approved in the safety evaluation dated January 22, 2018. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c), and provided no other regulation, technical specification, license condition, or requirement would require prior NRC approval, the licensee may make changes to the fire protection program without prior approval of the Commission if those changes satisfy the provisions set forth in 10 CFR 50.48(a) and 10 CFR 50.48(c), the change does not require a change to a technical specification or a license condition, and the criteria listed below are satisfied.

evaluation (with the exception of Items BV1-1633, BV1-2974, BV1-3060, BV1-3108, BV1-3109, BV2-1580, BV2-1622, BV2-1623, and BV2-1750, which are to be completed by the end of the second Unit 2 refueling outage after issuance of the safety evaluation).

G. Reporting to the Commission

DELETED

H. Financial Protection

The licensee shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.

I. License Renewal Commitments - The UFSAR supplement, as revised, submitted pursuant to 10 CFR 54.21(d), describes certain future activities to be completed prior to and/or during the period of extended operation. Vistra Operations Company LLC shall complete these activities in accordance with Appendix A of NUREG-1929, Safety Evaluation Report Related to the Beaver Valley Power Station, Units 1 and 2, dated October 2009, and Supplement 1 of NUREG-1929, dated October 2009, and shall notify the NRC in writing when activities to be completed prior to the period of extended operation are complete and can be verified by NRC inspection.

J. UFSAR Supplement Changes - The information in the UFSAR supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be incorporated into the UFSAR as required by 10 CFR 50.71(e) following the issuance of this renewed operating license. Until that update is complete, Vistra Operations Company LLC may not make changes to the information in the supplement. Following incorporation into the UFSAR, the need for prior Commission approval of any changes will be governed by 10 CFR 50.59.

K. Capsule Withdrawal Schedule - For the renewed operating license term, all capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of American Society for Testing and Materials (ASTM) E 185-82 to the extent practicable for the configuration of the specimens in the capsule. Any changes to the capsule withdrawal schedule, including spare capsules, must be approved by the NRC prior to implementation.

L. Containment Liner Volumetric Inspection -

a) If degradation (greater than 10 percent of the nominal thickness not attributable to fabrication/erection practices) is identified in the non-random areas examined using ultrasonic testing (UT) as described in Supplement 1 of NUREG-1929, UT examinations shall be performed at additional non-random areas, to be selected based on this operating experience. Should additional degradation be identified, additional non-random areas shall be UT examined until no further degradation (greater than 10 percent of the nominal thickness) is identified. All areas with degradation shall be reexamined over at least the next three successive inspection periods to ensure that progression of the degradation is not occurring.

APPENDIX B
TO FACILITY OPERATING LICENSE NO. NPF-73
BEAVER VALLEY POWER STATION
UNIT 2
VISTRA OPERATIONS COMPANY LLC, ET AL
DOCKET NO. 50-412
ENVIRONMENTAL PROTECTION PLAN
(NONRADIOLOGICAL)
AUGUST 1987

1.0 Objectives of the Environmental Protection Plan

The Environmental Protection Plan (EPP) is to provide for protection of nonradiological environmental values during operation of the Beaver Valley Power Station, Unit 2 (facility). The principal objectives of the EPP are as follows:

- (1) Verify that the facility is operated in an environmentally acceptable manner, as established by the Final Environmental Statement - Operating License Stage (FES-OL) and other NRC environmental impact assessments.
- (2) Coordinate NRC requirements and maintain consistency with other Federal, State, and local requirements for environmental protection.
- (3) Keep NRC informed of the environmental effects of facility construction and operation and of actions taken to control those effects.

Environmental concerns identified in the FES-OL (September 1985, NUREG-1094) which relate to water quality matters are regulated by way of the licensee's* NPDES permit.

2.0 Environmental Protection Issues

In the FES-OL (NUREG-1094, September 1985), the staff considered the environmental impacts associated with the operation of the Beaver Valley Power Station, Unit 2. No aquatic/water quality, terrestrial, or noise issues were identified.

3.0 Consistency Requirements

3.1 Plant Design and Operation

The licensee may make changes in station design or operation or perform tests or experiments affecting the environment provided such activities do not involve an unreviewed environmental question and do not involve a change in the EPP*. Changes in station design or operation or performance of tests or experiments which do not affect the environment are not subject to the requirements of this EPP. Activities governed by Section 3.3 are not subject to the requirements of this Section.

Before engaging in additional construction or operational activities which may significantly affect the environment, the licensee shall prepare and record an environmental evaluation of such activity. Activities are excluded from this requirement if all measurable nonradiological environmental effects are confined to the on-site areas previously disturbed during site preparation and plant construction. When the evaluation indicates that such activity involves an unreviewed environmental question, the licensee shall provide a written evaluation of such activity and obtain prior NRC approval. Such activity and change to the EPP may be implemented only in accordance with an appropriate license amendment as set forth in Section 5.3 of this EPP.

*"Licensee" refers to Vistra Operations Company LLC, operator of the facility, and acting as agent for Energy Harbor Nuclear Generation LLC, owner of the facility.

APPENDIX D

ADDITIONAL CONDITIONS
OPERATING LICENSE NO. NPF-73

Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Condition	Implementation Date
83	The licensee is authorized to relocate certain Technical Specification requirements to licensee-controlled documents. Implementation of this amendment shall include the relocation of these technical specification requirements to the appropriate documents, as described in the licensee's application dated September 9, 1996, and evaluated in the staff's safety evaluation attached to this amendment.	The amendment shall be implemented within 60 days from April 14, 1997
87	The licensee is authorized to relocate certain Technical Specification requirements to licensee-controlled documents. Implementation of this amendment shall include the relocation of these technical specification requirements to the appropriate documents, as described in the licensee's application dated March 14, 1997, as supplemented July 29 and August 13, 1997, and evaluated in the staff's safety evaluation attached to this amendment.	The amendment shall be implemented within 60 days from December 10, 1997
88	The licensee is authorized to relocate certain Technical Specification requirements to licensee-controlled documents. Implementation of this amendment shall include the relocation of these technical specification requirements to the appropriate documents, as described in the licensee's application dated September 11, 1997, and evaluated in the staff's safety evaluation attached to this amendment.	The amendment shall be implemented within 30 days from January 20, 1998
98	The licensee commits to perform visual acceptance examinations of sleeve welds; post weld heat treatment of sleeve welds; and the NRC-recommended inspections of repaired tubes as described in the licensee's application dated March 10, 1997, as supplemented July 28, 1997, September 17, 1997, April 30, 1998, and January 29, 1999, and evaluated in the staff's safety evaluation attached to this amendment.	The amendment shall be implemented within 60 days from March 26, 1999

APPENDIX D

ADDITIONAL CONDITIONS
OPERATING LICENSE NO. NPF-73

Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Condition	Implementation Date
102	The licensee is authorized to relocate certain Technical Specification requirements to licensee-controlled documents. Implementation of this amendment shall include the relocation of these Technical Specification requirements to the appropriate documents as described in the licensee's application dated December 24, 1998, as supplemented June 15, June 17, and July 7, 1999, and evaluated in the staff's evaluation attached to this amendment.	The amendment shall be implemented within 60 days from August 30, 1999
151	On the closing date(s) of the transfers to FENGenCo* of their interests in Beaver Valley Power Station, Unit No. 2, Pennsylvania Power Company, The Cleveland Electric Illuminating Company, Ohio Edison Company, and The Toledo Edison Company shall transfer to FENGenCo* all of each transferor's respective accumulated decommissioning funds for Beaver Valley Power Station, Unit No. 2, except for funds associated with the leased portions of Beaver Valley Power Station, Unit No. 2, and tender to FENGenCo* additional amounts equal to remaining funds expected to be collected in 2005, as represented in the application dated June 1, 2005, but not yet collected by the time of closing. All of the funds shall be deposited in a separate external trust fund for the reactor in the same amount as received with respect to the unit to be segregated from other assets of FENGenCo* and outside its administrative control, as required by NRC regulations, and FENGenCo* shall take all necessary steps to ensure that this external trust fund is maintained in accordance with the requirements of the order approving the transfer of the license and consistent with the safety evaluation supporting the order and in accordance with the requirements of 10 CFR Section 50.75, "Reporting and recordkeeping for decommissioning planning."	The amendment shall be implemented within 30 days from December 16, 2005

* FirstEnergy Nuclear Generation Corp. (FENGenCo) has been renamed Energy Harbor Nuclear Generation LLC.

APPENDIX D

ADDITIONAL CONDITIONS
OPERATING LICENSE NO. NPF-73

Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Condition	Implementation Date
151	<p>By the date of closing of the transfer of the ownership interests in Beaver Valley Power Station, Unit No. 2 from Pennsylvania Power Company to FENGenCo*, FENGenCo* shall obtain a parent company guarantee from FirstEnergy in an initial amount of at least \$80 million (in 2005 dollars) to provide additional decommissioning funding assurance regarding such ownership interests. Required funding levels shall be recalculated annually and, as necessary, FENGenCo* shall either obtain appropriate adjustments to the parent company guarantee or otherwise provide any additional decommissioning funding assurance necessary for FENGenCo* to meet NRC requirements under 10 CFR 50.75.</p> <p>The Support Agreements described in the applications dated May 18, 2005 (up to \$80 million), and June 1, 2005 (up to \$400 million), shall be effective consistent with the representations contained in the applications. FENGenCo* shall take no action to cause FirstEnergy, or its successors and assigns, to void, cancel, or modify the Support Agreements without the prior written consent of the NRC staff, except, however, the \$80 million Support Agreement in connection with the transfer of the Pennsylvania Power Company interests may be revoked or rescinded if and when the \$400 million support agreement described in the June 1, 2005, application becomes effective. FENGenCo* shall inform the Director of the Office of Nuclear Reactor Regulation, in writing, no later than ten days after any funds are provided to FENGenCo* by FirstEnergy under either Support Agreement.</p>	The amendment shall be implemented within 30 days from December 16, 2005

* FirstEnergy Nuclear Generation Corp. (FENGenCo) has been renamed Energy Harbor Nuclear Generation LLC.

APPENDIX D

ADDITIONAL CONDITIONS
OPERATING LICENSE NO. NPF-73

Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Condition	Implementation Date
161	<p><u>Schedule for New and Revised Surveillance Requirements (SRs)</u></p> <p>The schedule for performing SRs that are new or revised in Amendment No. 161 shall be as follows:</p> <p>For SRs that are new in this amendment, the first performance is due at the end of the first surveillance interval, which begins on the date of implementation of this amendment.</p> <p>For SRs that existed prior to this amendment, whose intervals of performance are being reduced, the first reduced surveillance interval begins upon completion of the first surveillance performed after implementation of this amendment.</p> <p>For SRs that existed prior to this amendment, whose intervals of performance are being extended, the first extended surveillance interval begins upon completion of the last surveillance performed prior to implementation of this amendment.</p> <p>For SRs that existed prior to this amendment that have modified acceptance criteria, the first performance subject to the modified acceptance criteria is due at the end of the first surveillance interval that began on the date the surveillance was last performed prior to the implementation of this amendment.</p>	<p>The amendment shall be implemented within 150 days from date of issuance</p>
161	<p><u>Relocation of Certain Technical Specification Requirements</u></p> <p>License Amendment No. 161 authorizes the relocation of certain Technical Specifications to other licensee-controlled documents. Implementation of this amendment shall include relocation of the requirements to the specified documents, as described in (1) Sections 4D and 4E of the NRC staff's Safety Evaluation, and (2) Table LA, Removed Detail Changes, and Table R, Relocated Specifications, attached to the NRC staff's Safety Evaluation, which is enclosed in this amendment.</p>	<p>The amendment shall be implemented within 150 days from date of issuance</p>

APPENDIX D

ADDITIONAL CONDITIONS
OPERATING LICENSE NO. NPF-73

Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Condition	Implementation Date
163	<p><u>Initial Performance of New Surveillance and Assessment Requirements</u></p> <p>Upon implementation of Amendment No. 163 adopting TSTF-448, Revision 3, the determination of control room envelope (CRE) unfiltered air leakage as required by Surveillance Requirement (SR) 3.7.10.4, in accordance with Specification 5.5.14.c(i), the assessment of CRE habitability as required by Specification 5.5.14.c(ii), and the measurement of CRE pressure as required by Specification 5.5.14.d, shall be considered met. Following implementation:</p> <ul style="list-style-type: none">(a) The first performance of SR 3.7.10.4, in accordance with Specification 5.5.14.c(i), shall be within the specified Frequency of 6 years, plus the 18-month allowance of SR 3.0.2, as measured from the date of the most recent successful tracer gas test, or within the next 18 months if the time period since the most recent successful tracer gas test is greater than 6 years.(b) The first performance of the periodic assessment of CRE habitability, Specification 5.5.14.c(ii), shall be within 3 years, plus the 9-month allowance of SR 3.0.2, as measured from the date of the most recent successful tracer gas test, or within the next 9 months if the time period since the most recent successful tracer gas test is greater than 3 years.(c) The first performance of the periodic measurement of CRE pressure, Specification 5.5.14.d, shall be within 18 months, plus the 138 days allowed by SR 3.0.2, as measured from the date of the most recent successful pressure measurement test.	The amendment shall be implemented within 120 days from date of issuance

APPENDIX D

ADDITIONAL CONDITIONS
OPERATING LICENSE NO. NPF-73

Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Condition	Implementation Date
187	<p>Based on the Commission's Order dated April 14, 2017, regarding the direct transfer from Ohio Edison Company (OE) and The Toledo Edison Company (TE) to FirstEnergy Nuclear Generation, LLC (FENGen), FENOC and FENGen shall comply with the following conditions noted Below.</p> <p>A. By June 1, 2017, OE and TE shall initiate the transfer to FENGen the accumulated decommissioning funds held by OE and TE for Beaver Valley Unit 2. All such funds shall be deposited and held in the FENGen nuclear decommissioning trust for Beaver Valley Unit 2 along with other funds maintained by FENGen for Beaver Valley Unit 2 and shall be maintained in such trust outside of FENGen's administrative control and in accordance with the requirements of 10 CFR 50.75(h)(1). Such transfer of the accumulated decommissioning funds by OE and TE shall be completed within a reasonable period of time.</p> <p>B. The Support Agreement in the amount of \$400 million from FirstEnergy Solutions Corp. (FES) described in the application dated June 24, 2016 shall be effective and consistent with the representations in the application. FENGen shall take no action to void, cancel, or modify the Support Agreement without the prior written consent of the NRC staff. FENGen shall inform the Director of the Office of Nuclear Reactor Regulation, in writing, no later than 10 working days after any funds are provided to FENGen by FES under the terms of the Support Agreement.</p>	<p>The amendment shall be implemented within 90 days from June 1, 2017</p>

APPENDIX D

ADDITIONAL CONDITIONS
OPERATING LICENSE NO. NPF-73

Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Condition	Implementation Date
194	<p>Amendment Number 187 described a \$400 million Support Agreement between FirstEnergy Solutions Corp. (FES) and FirstEnergy Nuclear Generation, LLC (FENGen). However, the amendment did not clearly state that this Support Agreement superseded entirely a similar agreement between FirstEnergy Corp. and FirstEnergy Nuclear Generation Corp. (predecessor of FENGen).</p> <p>Based on the Commission's approval regarding the change in the parent company issuing a \$400 million Support Agreement to Energy Harbor Nuclear Generation LLC, Energy Harbor Nuclear Generation LLC shall comply with the conditions noted below. This \$400 million Support Agreement supersedes all previous parent support agreements.</p> <p>A. The Support Agreement in the amount of \$400 million described in the application dated April 26, 2019 is effective. Energy Harbor Nuclear Generation LLC shall take no action to void, cancel, or modify the Support Agreement without the prior written consent of the NRC staff. Energy Harbor Nuclear Generation LLC shall inform the Director of the Office of Nuclear Reactor Regulation, in writing, no later than 10 working days after any funds are provided to Energy Harbor Nuclear Generation LLC by Energy Harbor Corp. under the terms of the Support Agreement.</p>	<p>The amendment shall be implemented within 7 days from date of issuance</p>
196	<p>C. Deleted</p> <p>D. Deleted</p>	
XXX	<p>Based on the Commission's approval regarding the change in the parent company issuing a \$400 million Support Agreement to Energy Harbor Nuclear Generation LLC, Energy Harbor Nuclear Generation LLC shall comply with the conditions noted below. This \$400 million Support Agreement supersedes all previous parent support agreements.</p> <p>A. The Support Agreement in the amount of \$400 million described in the application dated April 14, 2023, is effective. Energy Harbor Nuclear Generation LLC shall take no action to void, cancel, or modify the Support Agreement without the prior written consent of the NRC staff. Energy Harbor Nuclear Generation LLC shall inform the Director of the Office of Nuclear Reactor Regulation, in writing, no later than 10 working days after any funds are provided to Energy Harbor Nuclear Generation LLC by Vistra Operations Company LLC under the terms of the Support Agreement.</p>	<p>The amendment shall be implemented within 7 days from date of issuance</p>

APPENDIX D

ADDITIONAL CONDITIONS
OPERATING LICENSE NO. NPF-73

Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC shall comply with the following conditions on the schedules noted below:

Amendment Number	Additional Condition	Implementation Date
XXX	Vistra Operations Company LLC shall provide to the Director of the Office of Nuclear Reactor Regulation or the Director of the Office of Nuclear Material Safety and Safeguards, as applicable, a copy of any application, at the time it is filed, to transfer (excluding grants of security interests or liens) from Vistra Operations Company LLC to its direct or indirect parent, or to any other affiliated company, facilities for the production, transmission, or distribution of electric energy having a depreciated book value exceeding ten percent (10%) of Vistra Operations Company LLC's consolidated net utility plant, as recorded on Vistra Operations Company LLC's books of account.	

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

ENERGY HARBOR NUCLEAR CORP.

AND

ENERGY HARBOR NUCLEAR GENERATION LLC

DOCKET NO. 50-346

DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. XXX
Renewed License No. NPF-3

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Energy Harbor Nuclear Corp., acting on its own behalf and as agent for Energy Harbor Nuclear Generation LLC* (the licensee), dated April 14, 2023, as supplemented by letters dated April 20, 2023, August 7, 2023, and September 12, 2023, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

* Energy Harbor Nuclear Corp. is authorized to act as agent for Energy Harbor Nuclear Generation LLC and has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

2. Accordingly, Renewed Facility Operating License No. NPF-3 is hereby amended as indicated in the attachment to this license amendment.
3. This license amendment is effective as of the date of its issuance and shall be implemented within 7 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Andrea D. Veil, Director
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Renewed Facility
Operating License

Date of Issuance:

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

ATTACHMENT TO LICENSE AMENDMENT NO. XXX
TO RENEWED FACILITY OPERATING LICENSE NO. NPF-3
DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1
DOCKET NO. 50-346

Replace the following pages of the Renewed Facility Operating License with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Renewed Facility Operating License No. NPF-3

REMOVE

L-1
L-2
L-4
L-5
L-6
L-7
L-7b
L-8
L-11
L-17
L-19

INSERT

L-1
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L-4
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L-7b
L-8
L-11
L-17
L-19



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

VISTRA OPERATIONS COMPANY LLC

AND

ENERGY HARBOR NUCLEAR GENERATION LLC

DOCKET NO. 50-346

DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1

RENEWED FACILITY OPERATING LICENSE

Renewed License No. NPF-3

1. The Nuclear Regulatory Commission (the Commission) having found that:
 - A. The application for renewed license complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of the Davis-Besse Nuclear Power Station, Unit No. 1 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-80 and the application, as amended, the provisions of the Act and the rules and regulations of the Commission;
 - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;

Renewed License No. NPF-3
Amendment No. XXX

- 1.D. There is reasonable assurance: (i) that the activities authorized by this renewed operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission;
 - E. Vistra Operations Company LLC is technically qualified and the licensees¹ are financially qualified to engage in the activities authorized by this renewed operating license in accordance with the rules and regulations of the Commission;
 - F. The licensees have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - G. The issuance of this renewed operating license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Renewed Facility Operating License No. NPF-3 subject to the conditions for protection of the environment set forth herein is in accordance with 10 CFR Part 51 (formerly Appendix D to 10 CFR Part 50), of the Commission's regulations and all applicable requirements have been satisfied;
 - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this renewed license will be in accordance with the Commission's regulations in 10 CFR Part 30, 40, and 70, including 10 CFR Sections 30.33, 40.32, 70.23, and 70.31; and
 - J. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1), and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by the renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations.
2. Renewed Facility Operating License No. NPF-3 is hereby issued to Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC to read as follows:
 - A. This renewed license applies to the Davis-Besse Nuclear Power Station, Unit No. 1, a pressurized water nuclear reactor and associated equipment

¹ Vistra Operations Company LLC is authorized to act as agent for Energy Harbor Nuclear Generation LLC (collectively, the licensees).

2.B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:

- (1) Vistra Operations Company LLC, pursuant to Section 103 of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility;
- (2) Energy Harbor Nuclear Generation LLC, to possess the facility at the designated location in Ottawa County, Ohio in accordance with the procedures and limitations set forth in this renewed license;
- (3) Vistra Operations Company LLC, pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (4) Vistra Operations Company LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70 to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (5) Vistra Operations Company LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (6) Vistra Operations Company LLC, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

2.C. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

Vistra Operations Company LLC is authorized to operate the facility at steady state reactor core power levels not in excess of 2817 megawatts (thermal). Prior to attaining the power level, Toledo Edison Company shall comply with the conditions identified in Paragraph (3) (o) below and complete the preoperational tests, startup tests and other items identified in Attachment 2 to this license in the sequence specified. Attachment 2 is an integral part of this renewed license.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 303, are hereby incorporated in the renewed license. Vistra Operations Company LLC shall operate the facility in accordance with the Technical Specifications.

(3) Additional Conditions

The matters specified in the following conditions shall be completed to the satisfaction of the Commission within the stated time periods following the issuance of the renewed license or within the operational restrictions indicated. The removal of these conditions shall be made by an amendment to the renewed license supported by a favorable evaluation by the Commission:

- (a) Vistra Operations Company LLC shall not operate the reactor in operational Modes 1 and 2 with less than three reactor coolant pumps in operation.
- (b) Deleted per Amendment 6
- (c) Deleted per Amendment 5

- 2.C(3)(d) Prior to operation beyond 32 Effective Full Power Years, Vistra Operations Company LLC shall provide to the NRC a reanalysis and proposed modifications, as necessary, to ensure continued means of protection against low temperature reactor coolant system overpressure events.
- (e) Deleted per Amendment 33
 - (f) Deleted per Amendment 33
 - (g) Deleted per Amendment 33
 - (h) Deleted per Amendment 24
 - (i) Deleted per Amendment 11
 - (j) Revised per Amendment 3
Deleted per Amendment 28
 - (k) Within 60 days of startup following the first (1st) regularly scheduled refueling outage, Toledo Edison Company shall complete tests and obtain test results as required by the Commission to verify that faults on non-Class IE circuits would not propagate to the Class IE circuits in the Reactor Protection System and the Engineered Safety Features Actuation System.
 - (l) Revised per Amendment 7
Deleted per Amendment 15
 - (m) Deleted per Amendment 7
 - (n) Deleted per Amendment 10
 - (o) Deleted per Amendment 2
 - (p) Deleted per Amendment 29
 - (q) Deleted per Amendment 7
 - (r) Deleted per Amendment 30
 - (s) Toledo Edison Company shall be exempted from the requirements of Technical Specification 3/4.7.8.1 for the two (2) Americium-Beryllium-Copper startup sources to be installed or already installed for use during the first refueling cycle until such time as the sources are replaced.
 - (t) Added per Amendment 83
Deleted per Amendment 122

2.C(4) Fire Protection

Vistra Operations Company LLC shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the license amendment request dated December 16, 2015, as supplemented by letters dated February 2, March 7, July 28, and December 16, 2016; January 17, June 16, and May 13, 2019, and as approved by Amendment No. 298. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c), and provided no other regulation, technical specification, license condition or requirement would require prior NRC approval, the licensee may make changes to the fire protection program without prior approval of the Commission if those changes satisfy the provisions set forth in 10 CFR 50.48(a) and 10 CFR 50.48(c), the changes does not require a change to a technical specification or a license condition, and the criteria listed below are satisfied.

Risk-Informed Changes that May Be Made Without Prior NRC Approval

A risk assessment of the change must demonstrate that the acceptance criteria below are met. The risk assessment approach, methods, and data shall be acceptable to the NRC and shall be appropriate for the nature and scope of the change being evaluated; be based on the as-built, as-operated, and maintained plant; and reflect the operating experience at the plant. Acceptable methods to assess the risk of the change may include methods that have been used in the peer-reviewed fire probabilistic risk assessment model, methods that have been approved by the NRC through a plant-specific license amendment or NRC approvals of generic methods specifically for use in NFPA 805 risk impact.

- (a) Prior NRC review and approval is not required for changes that clearly result in a decrease in risk. The proposed change must also be consistent with the defense-in-depth philosophy and must maintain sufficient safety margins. The change may be implemented following completion of the plant change evaluation.
- (b) Prior NRC review and approval is not required for individual changes that result in a risk increase less than 10^{-7} /year for core damage frequency and less than 10^{-8} /year for large early release frequency. The proposed change must also be consistent with the defense-in-depth philosophy and must maintain sufficient safety margins. The change may be implemented following completion of the plant change evaluation.

(2) Fire Protection Program Changes that Have No More than Minimal Risk Impact

Prior NRC review and approval are not required for changes to the licensee's fire protection program that have been demonstrated to have no more than a minimal risk impact. The licensee may use its screening process, as approved by Amendment No. 298, to determine that certain fire protection program changes meet the minimal criterion. The licensee shall ensure that fire protection defense-in-depth and safety margins are maintained when changes are made to the fire protection program.

Transition License Conditions

(1) Before achieving full compliance with 10 CFR 50.48(c), as specified by (2) and (3) below, risk-informed changes to the licensee's fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in (2) above.

(2) The licensee shall implement the modification described in Attachment S, Table S-1, "Plant Modifications Committed," to the FENOC letter dated November 20, 2018, within 2 years following issuance of the license amendment. The licensee shall maintain appropriate compensatory measures in place until completion of this modification.

(3) The licensee shall implement the items listed in Attachment S, Table S-2, "Implementation Items," to the FENOC letter dated November 20, 2018, within 2 years following issuance of the license amendment.

(5) Deleted per Amendment No. 279.

(6) Antitrust Conditions

Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC shall comply with the antitrust conditions delineated in Condition 2.E of this renewed license as if named therein. Vistra Operations Company LLC shall not market or broker power or energy from the Davis-Besse Nuclear Power Station, Unit No. 1. Energy Harbor Nuclear Generation LLC is responsible and accountable for the actions of Vistra Operations Company LLC to the extent that said actions affect the marketing or brokering of power or energy from the Davis-Besse Nuclear Power Station, Unit No. 1, and in any way, contravene the antitrust license conditions contained in the renewed license.

2.C(7) Steam Generator Tube Circumferential Crack Report

Following each inservice inspection of steam generator tubes, the NRC shall be notified by Vistra Operations Company LLC of the following prior to returning the steam generators to service:

- a. Indications of circumferential cracking inboard of the roll repair.
- b. Indication of circumferential cracking in the original roll or heat affected zone adjacent to the tube-to-tubesheet seal weld if no reroll is present.
- c. Determination of the best-estimate total leakage that would result from an analysis of the limiting LBLOCA based on circumferential cracking in the original tube-to-tubesheet rolls, tube-to-tubesheet reroll repairs, and heat affected zones of seal welds as found during each inspection.

Vistra Operations Company LLC shall demonstrate by evaluation that the primary-to-secondary leakage following a LBLOCA, if any, as described in Appendix A to topic Report BAW-2374, July 2000, continues to be acceptable, based on the as-found condition of the steam generators. For the purpose of this evaluation, acceptable means that a best estimate of the leakage expected in the event of a LBLOCA would not result in a significant increase of radionuclide release (e.g., in excess of 10 CFR Part 100 limits). This is required to demonstrate that adequate margin and defense-in-depth continue to be maintained. A written summary of this evaluation shall be provided to the NRC within three months following completion of the steam generator tube inservice inspection.

2.C(8) Mitigation Strategy License Condition

The licensee shall develop and maintain strategies for addressing large fires and explosions that include the follow key area:

- (a) Fire fighting response strategy with the following elements:
 1. Predefined coordinated fire response strategy and guidance
 2. Assessment of mutual aid fire fighting assets
 3. Designated staging areas for equipment and materials
 4. Command and control
 5. Training of response personnel
- (b) Operations to mitigate fuel damage considering the following:
 1. Protection and use of personnel assets
 2. Communications
 3. Minimizing fire spread
 4. Procedures for implementing integrated fire response strategy
 5. Identification of readily-available pre-staged equipment
 6. Training on integrated fire response strategy
 7. Spent fuel pool mitigation measures
- (c) Actions to minimize release to include consideration of:
 1. Water spray scrubbing
 2. Dose to onsite responders

2.D. Vistra Operations Company LLC shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Davis-Besse Nuclear Power Station Physical Security Plan, Training and Qualification Plan, and Safeguards Contingency Plan Revision 4," submitted by letter dated May 18, 2006.

Vistra Operations Company LLC shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The CSP was approved by License Amendment No. 283 and is amended by License Amendment No. 290.

E. This license is subject to the following antitrust conditions:

Definitions

Entity shall mean any electric generation and/or distribution system or municipality or cooperative with a statutory right or privilege to engage in either of these functions.

Wheeling shall mean transportation of electricity by a utility over its lines for another utility, including the receipt from and delivery to another system of like amounts but not necessarily the same energy. Federal Power Commission, The 1970 National Power Survey, Part 1, p. I-24-8.

License Conditions Approved By the Atomic Safety and Licensing Appeal Board*

- (1) Applicants shall not condition the sale or exchange of wholesale power or coordination services upon the condition that any other entity:
 - (a) enter into any agreement or understanding restricting the use of or alienation of such energy or services to any customers or territories;

* "Applicants" as used by the Appeal Board refers to the Toledo Edison Company, Cleveland Electric Illuminating Company, Duquesne Light Company, Ohio Edison Company and Pennsylvania Power Company although none of these entities are currently Licensees for this facility.

2.F. This renewed license is subject to the following additional conditions for the protection of the environment:

- (1) Vistra Operations Company LLC shall operate Davis-Besse Unit No. 1 within applicable Federal and State air and water quality standards.
- (2) Before engaging in an operational activity not evaluated by the Commission, Vistra Operations Company LLC will prepare and record an environmental evaluation of such activity. When the evaluation indicates that such activity may result in a significant adverse environmental impact that was not evaluated, or that is significantly greater than that evaluated in the Final Environmental Statement, Vistra Operations Company LLC shall provide a written evaluation of such activities and obtain prior approval of the Director, Office of Nuclear Reactor Regulation for the activities.

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- B. The Support Agreement in the amount of \$400 million described in the application dated April 14, 2023, is effective. Energy Harbor Nuclear Generation LLC shall take no action to void, cancel, or modify the Support Agreement without the prior written consent of the NRC staff. Energy Harbor Nuclear Generation LLC shall inform the Director of the Office of Nuclear Reactor Regulation, in writing, no later than 10 working days after any funds are provided to Energy Harbor Nuclear Generation LLC by Vistra Operations Company LLC under the terms of the Support Agreement.
- C. Vistra Operations Company LLC shall provide to the Director of the Office of Nuclear Reactor Regulation or the Director of the Office of Nuclear Material Safety and Safeguards, as applicable, a copy of any application, at the time it is filed, to transfer (excluding grants of security interests or liens) from Vistra Operations Company LLC to its direct or indirect parent, or to any other affiliated company, facilities for the production, transmission, or distribution of electric energy having a depreciated book value exceeding ten percent (10%) of Vistra Operations Company LLC's consolidated net utility plant, as recorded on Vistra Operations Company LLC's books of account.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

William M. Dean, Director
Office of Nuclear Reactor Regulation

Attachments:

1. Appendix A - Technical Specifications
2. Preoperational Tests, Startup Tests and Other Items Which Must Be Completed Prior to Proceeding to Succeeding Operational Modes

Date of Issuance: December 8, 2015



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

ENERGY HARBOR NUCLEAR CORP.

ENERGY HARBOR NUCLEAR GENERATION LLC

DOCKET NO. 50-440

PERRY NUCLEAR POWER PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. XXX
License No. NPF-58

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Energy Harbor Nuclear Corp., acting on its own behalf and as agent for Energy Harbor Nuclear Generation LLC* (the licensee), dated April 14, 2023, as supplemented by letters dated April 20, 2023, August 7, 2023, and September 12, 2023, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

* Energy Harbor Nuclear Corp. is authorized to act as agent for Energy Harbor Nuclear Generation LLC and has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

2. Accordingly, Facility Operating License No. NPF-58 is hereby amended as indicated in the attachment to this license amendment.
3. This license amendment is effective as of the date of its issuance and shall be implemented within 7 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Andrea D. Veil, Director
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Facility Operating
License

Date of Issuance:

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

ATTACHMENT TO LICENSE AMENDMENT NO. XXX

PERRY NUCLEAR POWER PLANT, UNIT NO. 1

FACILITY OPERATING LICENSE NO. NPF-58

DOCKET NO. 50-440

Replace the following pages of the Facility Operating License, Appendix A, Technical Specifications, Appendix B, Environmental Protection Plan (Nonradiological), and Appendix C, Antitrust Conditions, with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE

INSERT

License No. NPF-58

License No. NPF-58

- 1 -
- 2 -
- 3 -
- 4 -
- 5 -
- 6 -
- 8 -
A 1
B 1
C 1

- 1 -
- 2 -
- 3 -
- 4 -
- 5 -
- 6 -
- 8 -
A 1
B 1
C 1



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

VISTRA OPERATIONS COMPANY LLC
ENERGY HARBOR NUCLEAR GENERATION LLC

DOCKET NO. 50-440
PERRY NUCLEAR POWER, PLANT, UNIT NO. 1
FACILITY OPERATING LICENSE

License No. NPF-58

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for license complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of the Perry Nuclear Power Plant, Unit No. 1 (the facility), has been substantially completed in conformity with Construction Permit No. CPPR-148 and the application, as amended, the provisions of the Act, and the regulations of the Commission;

- C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission (except as exempted from compliance in Section 2.D below);
 - D. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D below);
 - E. Vistra Operations Company LLC is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
 - F. The licensees¹ have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this Facility Operating License No. NPF-58, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied; and
 - I. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40, and 70.
2. Based on the foregoing findings regarding this facility, the Partial-Initial Decisions issued December 2, 1983, and September 3, 1985, by the Atomic Safety and Licensing Board in regard to this facility (affirmed by ALAB-841, dated July 25, 1986) and pursuant to approval by the Nuclear Regulatory Commission at a meeting on November 7, 1986, Facility Operating License No. NPF-58, which supersedes the license for fuel loading and low power testing, License No. NPF-45, issued on March 18, 1986, is hereby issued to Vistra Operations Company LLC and Energy Harbor Nuclear Generation LLC (the licensees) to read as follows:
- A. The license applies to the Perry Nuclear Power Plant, Unit No. 1, a boiling water nuclear reactor and associated equipment (the facility), owned by Energy Harbor Nuclear Generation LLC (owner).

¹ Vistra Operations Company LLC is authorized to act as agent for Energy Harbor Nuclear Generation LLC (collectively, the licensees).

The facility is located on the shore of Lake Erie in Lake County, Ohio, approximately 35 miles northeast of Cleveland, Ohio, and is described in the licensees' Final Safety Analysis Report, as supplemented and amended, and in the licensees' Environmental Report, as supplemented and amended.

B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:

- (1) Vistra Operations Company LLC, pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use, and operate the facility at the designated location in Lake County, Ohio, in accordance with the procedures and limitations set forth in this license;
- (2) Energy Harbor Nuclear Generation LLC to possess the facility at the designated location in Lake County, Ohio, in accordance with the procedures and limitations set forth in this license;
- (3) Vistra Operations Company LLC, pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (4) Vistra Operations Company LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source, and special nuclear material such as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and fission detectors in amounts as required;
- (5) Vistra Operations Company LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction as to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (6) Vistra Operations Company LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- (7) Deleted

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

Vistra Operations Company LLC is authorized to operate the facility at reactor core power levels not in excess of 3758 megawatts thermal (100% power) in accordance with the conditions specified herein.

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 200, are hereby incorporated into the license. Vistra Operations Company LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Antitrust Conditions

- a. Energy Harbor Nuclear Generation LLC shall comply with the antitrust conditions delineated in Appendix C to this license; Appendix C is hereby incorporated into this license.

- b. Vistra Operations Company LLC shall comply with the antitrust conditions delineated in Appendix C to this license as if named therein. Vistra Operations Company LLC shall not market or broker power or energy from the Perry Nuclear Power Plant, Unit No. 1. The Owner is responsible and accountable for the actions of Vistra Operations Company LLC to the extent that said actions affect the marketing or brokering of power or energy from the Perry Nuclear Power Plant, Unit No. 1, and in any way, contravene the antitrust condition contained in the license.

(4) Deleted

(5) Deleted

(6) Fire Protection (Section 9.5, SER, SSER #1, 2, 3, 4, 7, and 8)

Vistra Operations Company LLC shall comply with the following requirements of the fire protection program: Vistra Operations Company LLC shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report, as amended, for the Perry Nuclear Power Plant and as approved in the Safety Evaluation Report (NUREG-0887) dated May 1982 and Supplement Nos. 1 through 10 thereto, subject to the following provisions:

- a. Vistra Operations Company LLC may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

(7) Deleted

(8) Deleted

(9) Deleted

(10) Deleted

(11) Mitigation Strategy License Condition

The licensee shall develop and maintain strategies for addressing large fires and explosions and that include the follow key areas:

- (a) Fire fighting response strategy with the following elements:
 1. Predefined coordinated fire response strategy and guidance
 2. Assessment of mutual aid fire fighting assets
 3. Designated staging areas for equipment and materials

- D. Vistra Operations Company LLC is exempted from: 1) the requirements of Section III.D.2(b)(ii), containment airlock testing requirements, Appendix J to 10 CFR Part 50, due to the special circumstance described in Section 6.2.6 of SER Supplement No. 7 authorized by 10 CFR 50.12(a)(2)(iii) and 2) the requirements of Section IV.F., Full Participation Exercise, of Appendix E to 10 CFR Part 50, due to the special circumstance described in the Exemption dated November 6, 1986. These exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. The exemptions are hereby granted pursuant to 10 CFR 50.12. With the granting of these exemptions, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.
- E. Vistra Operations Company LLC shall fully implement and maintain in effect all provision of the Commission-approved physical security, training and qualification, and safeguards contingency plans, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (61 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Perry Nuclear Power Plant Physical Security Plan" Revision 2, submitted by letter dated May 18, 2006.
- Vistra Operations Company LLC shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The CSP was approved by License Amendment No. 158, and amended by License Amendment No. 167.
- F. Deleted
- G. The licensees shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1964, as amended, to cover public liability claims.

C. Deleted

4. Based on the Commission's approval regarding the change in the parent company issuing a \$400 million Support Agreement to Energy Harbor Nuclear Generation LLC, Energy Harbor Nuclear Generation LLC shall comply with the conditions noted below. This \$400 million Support Agreement supersedes all previous parent support agreements.
 - A. The Support Agreement in the amount of \$400 million described in the application dated April 14, 2023 is effective. Energy Harbor Nuclear Generation LLC shall take no action to void, cancel, or modify the Support Agreement without the prior written consent of the NRC staff. Energy Harbor Nuclear Generation LLC shall inform the Director of the Office of Nuclear Reactor Regulation, in writing, no later than 10 working days after any funds are provided to Energy Harbor Nuclear Generation LLC by Vistra Operations Company LLC under the terms of the Support Agreement.
5. Vistra Operations Company LLC shall provide to the Director of the Office of Nuclear Reactor Regulation or the Director of the Office of Nuclear Material Safety and Safeguards, as applicable, a copy of any application, at the time it is filed, to transfer (excluding grants of security interests or liens) from Vistra Operations Company LLC to its direct or indirect parent, or to any other affiliated company, facilities for the production, transmission, or distribution of electric energy having a depreciated book value exceeding ten percent (10%) of Vistra Operations Company LLC's consolidated net utility plant, as recorded on Vistra Operations Company LLC's books of account.

FOR THE NUCLEAR REGULATORY COMMISSION

ORIGINAL SIGNED BY:

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Attachments/Appendices

1. Attachments 1-2
2. Appendix A - Technical Specifications
(NUREG-1204)
3. Appendix B - Environmental Protection
Plan
4. Appendix C - Antitrust Conditions

Date of Issuance: November 13, 1986

APPENDIX A

TO FACILITY OPERATING LICENSE NO. NPF-58

PERRY NUCLEAR POWER PLANT

UNIT 1

VISTRA OPERATIONS COMPANY LLC

DOCKET NO. 50-440

TECHNICAL SPECIFICATIONS

ARE FILED IN THE

TECHNICAL SPECIFICATION MANUAL

DRAFT

APPENDIX B

TO FACILITY OPERATING LICENSE NO. NPF-58

PERRY NUCLEAR POWER PLANT

UNIT 1

VISTRA OPERATIONS COMPANY LLC

DOCKET NOS. 50-440 AND 50-441

ENVIRONMENTAL PROTECTION PLAN

(NONRADIOLOGICAL)

November 13, 1986

DRAFT

APPENDIX C

PERRY NUCLEAR POWER PLANT, UNIT NO. 1

NPF-58

ANTITRUST CONDITIONS

FOR

VISTRA OPERATIONS COMPANY LLC

A. The licensees are subject to the following antitrust conditions:

Definitions

Applicant shall mean the company listed above.

Entity shall mean any electric generation and/or distribution system or municipality or cooperative with a statutory right or privilege to engage in either of these functions.

Wheeling shall mean transportation of electricity by a utility over its lines for another utility, including the receipt from and delivery to another system of like amounts but not necessarily the same energy. Federal Power Commission, The 1970 National Power Survey, Part 1, P. 1-24-B.

Licensing Conditions

- (1) Applicant shall not condition the sale or exchange of wholesale power or coordination services upon the condition that any other entity:
 - (a) enter into any agreement or understanding restricting the use of or alienation of such energy or services to any customers or territories;
 - (b) enter into any agreement or understanding requiring the receiving entity to, give up any other power supply alternatives or to deny itself any market opportunities;
 - (c) withdraw any petition to intervene or forego participation in any proceeding before the Nuclear Regulatory Commission or refrain from instigating or prosecuting any antitrust action in any other forum.