



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

September 18, 2017

All Power Reactor Licensees and  
Holders of Construction Permits in  
Active or Deferred Status

Dear Sir or Madam:

By letter dated February 19, 2016, Roy Mathew, Sheila Ray, Swagata Som, Gurcharan Singh Matharu, Tania Martinez Navedo, Thomas Koshy, and Kenneth Miller (Petitioners), filed a petition pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 2.206, "Requests for action under this subpart." with respect to the open phase condition vulnerability applicable to all nuclear power reactors in the United States, except Seabrook. The petition has been reviewed by the NRC staff and the staff's proposed director's decision on the petition is enclosed. I request that you provide comments to me on any portions of the decision that you believe involve errors or any issues in the petition that you believe have not been fully addressed. The staff is making a similar request of the petitioners. The NRC staff will then review any comments provided by you and the petitioners and consider them in the final version of the director's decision with no further opportunity to comment.

Please provide your comments within four weeks from the date of this letter. The petition manager, Tanya Mensah, can be reached at 301-415-3610 or at [Tanya.Mensah@nrc.gov](mailto:Tanya.Mensah@nrc.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Anne Boland" followed by a flourish.

Anne T. Boland, Director  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. See Enclosure 2

Enclosures:

1. Proposed Director's Decision
2. List of Power Reactor Licensees and Holders  
of Construction Permits in Active or Deferred Status

cc: Listserv

ENCLOSURE 1

Proposed Director's Decision

ADAMS Accession No. ML17156A180



their Technical Specifications (typically Section 3.8.1) related to onsite and offsite power systems.

Management Directive (MD) 8.11, "Review Process for 10 CFR 2.206 Petitions" (ADAMS Accession No. ML041770328), describes the NRC's review process for 10 CFR 2.206 petitions. On February 24, 2016, the NRC's petition manager acknowledged receipt of the petition and offered the Petitioners an opportunity to address the Petition Review Board (PRB). The Petitioners declined an opportunity to address the PRB on the basis that the petition already contained all of the relevant facts to support the PRB's review.

On March 14, 2016, the PRB met internally to discuss the request for immediate action, and to make an initial recommendation to either accept or reject the petition for review. The PRB denied the request for immediate action on the basis that the petition presented no significant new information, and only raised issues that had already been the subject of NRC staff review for regulatory and safety significance. The PRB also made an initial recommendation that the petition met the criteria for review in accordance with MD 8.11, Section III.C (1), "Criteria for Reviewing Petitions Under 10 CFR 2.206."

On March 15, 2016, the Petitioners were informed of the PRB's decision to deny the request for immediate action and of the initial recommendation to accept the petition for review. The Petitioners declined a second opportunity to address the PRB on the basis that the petition already contained all of the relevant facts to support the PRB's review. Therefore, consistent with its initial recommendation, the PRB declared its final recommendation to accept the petition for review.

In its March 21, 2016, acknowledgement letter (ADAMS Accession No. ML16069A214), the NRC staff informed the Petitioners that although their request for immediate action was denied, the petition was accepted for review.

The petition and other references related to this petition are available for inspection in the NRC's Public Document Room (PDR), located at O1F21, 11555 Rockville Pike (first floor), Rockville, Maryland 20852. Publicly available documents created or received at the NRC are accessible electronically through ADAMS in the NRC Library at <http://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC's PDR reference staff by telephone at 1-800-397-4209, or 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov).

## **II. Discussion**

Based on the NRC's comprehensive activities related to the resolution of open phase conditions in the electric power system for current operating nuclear power plants, the NRC's review took longer than the standard of 120 days for reaching a decision on the petition. This section includes a discussion of the relevant operating experience, NRC and industry actions, applicable regulatory requirements and guidance, the safety significance of the issue underlying the petition, and the NRC's actions and decisions on the Petitioners' requests.

### **A. Summary of Byron Station, Unit 2 Event**

As the basis for this petition, the Petitioners refer to the Byron Station, Unit 2, operating event. On January 30, 2012, Byron Station, Unit 2, experienced an automatic reactor trip from full power because the reactor protection scheme detected an undervoltage condition on the 6.9-kV buses that power reactor coolant pumps (RCPs) B and C (undervoltage on two of four RCPs initiate a reactor trip). The undervoltage condition was caused by a broken insulator for the phase C conductor for the 345-kV power circuit that supplies both station auxiliary transformers (SAT). The insulator failure resulted in an open circuit for the phase C conductor, which supplies the high voltage side of the SATs. The open circuit created an unbalanced

voltage condition on two 6.9-kV nonsafety-related RCP buses and the two 4.16-kV engineered safety features (ESF) buses. Some ESF loads that were energized relied on equipment protective devices to prevent damage from the resulting unbalanced overcurrent condition. The phase overcurrent condition resulted in a trip of several ESF loads.

Approximately 8 minutes after the reactor trip, the control room operators manually opened circuit breakers to separate the unit buses from the offsite power source. When the operators opened the SAT feeder breakers to the two 4.16-kV ESF buses, the loss-of-voltage relays started the emergency diesel generators (EDGs) and the EDGs restored power to the ESF buses. If the condition had been allowed to persist for an additional few minutes, damage to the RCP seals could have occurred due to loss of RCP seal cooling water. This in turn could have resulted in excessive leakage of reactor coolant from the RCP seals in the containment building.

#### B. Summary of NRC and Industry Actions

Following this event, the NRC completed a reactive inspection pursuant to Inspection Procedure 93812, "Special Inspection," at Byron Station, Unit 2. The special inspection (ADAMS Accession No. ML12087A213) reviewed the circumstances surrounding the January 30, 2012, electrical insulator failure in the Byron switchyard, which resulted in a Unit 2 automatic reactor trip and notice of unusual event emergency declaration.

On February 16, 2012, the Institute of Nuclear Power Operations (INPO) issued a Level 2 INPO Event Report describing the Byron event and requiring a review of the lessons learned and corrective actions for applicability by all licensees. As a result of the Byron event, every affected U.S. nuclear power plant now has compensatory measures in place to ensure that control room operators are aware of the issue and are trained to respond, and has modified power source switching procedures to ensure that plants have emergency power, if needed.

On March 1, 2012, the NRC issued Information Notice 2012-03, "Design Vulnerability in Electric Power System," (ADAMS Accession No. ML120480170) to inform the licensees operating and constructing commercial power reactors of the operating experience involving the loss of one of the three phases of the offsite power circuit.

On July 27, 2012, the NRC issued BL 2012-01 to confirm licensee compliance with 10 CFR Appendix A, "General Design Criteria for Nuclear Power Plants," to 10 CFR Part 50, General Design Criteria (GDC) 17, "Electric Power Systems," or principal design criteria specified in the updated final safety analysis report (UFSAR), 10 CFR 50.55a(h)(2), and 10 CFR 50.55a(h)(3). Each licensee's response to BL 2012-01 was submitted to the NRC by October 25, 2012, and can be found in ADAMS under each licensee's docket number.

The NRC staff reviewed the licensee responses to BL 2012-01 and documented the details of this review in a summary report dated February 26, 2013 (ADAMS Accession No. ML13052A711). Based upon the licensee responses to BL 2012-01, the NRC staff determined that most nuclear power reactors are susceptible to this open phase design vulnerability and recommended that the NRC take regulatory actions to address this design vulnerability.

On October 9, 2013, the Nuclear Energy Institute (NEI) notified the NRC that the industry's Chief Nuclear Officers had approved a formal initiative to address open phase conditions, and that the initiative represented a formal commitment among nuclear power plant licensees to address this design vulnerability for operating reactors and new reactor plant designs (ADAMS Accession No. ML13333A147).

By letter dated December 20, 2013 (ADAMS Accession No. ML13351A314), the NRC issued a Request for Additional Information (RAI) to licensees to verify that they had completed interim corrective actions and compensatory measures and to determine the status of each licensee's long-term corrective actions. The licensees' responses to the RAI are publicly available under each licensee's docket number in ADAMS. Their responses describe the

compensatory measures implemented at each plant (primarily enhancements to plant operating procedures and operator training) to minimize plant risk and to ensure adequate safety margins.

The NRC provided a response to the industry initiative, including a discussion of the planned open phase isolation system (OPIS) to be installed at each plant, in a letter to NEI dated November 25, 2014 (ADAMS Accession No. ML14120A203). The NRC noted that the capability of the onsite ESF power system to permit functioning of structures, systems, and components may depend upon successful operation of OPIS, and that the proposed solution needs to fully address GDC 17 or the principal design criteria specified in each plant's UFSAR. The NRC also communicated functional criteria for demonstrating compliance with existing regulatory requirements. The letter stated that the NRC staff concluded that although existing NRC regulations have requirements for the onsite and offsite power systems to permit functioning of structures, systems, and components important to safety for any failures in the offsite power system including a single failure in the onsite power system, open phase conditions were not specifically identified as an issue during the licensing reviews of the current operating nuclear power plants. The letter stated that for this reason, the NRC staff had recommended to the Commission that the NRC grant enforcement discretion to operating reactor licensees and refrain from issuing an enforcement action for certain noncompliances which would require a reactor shutdown while addressing the design vulnerability related to open phase conditions within their electrical power system.

On March 16, 2015, NEI provided the NRC with a revised initiative, changing its implementation completion date for OPIS from December 31, 2017, to December 31, 2018 in order to provide adequate time for licensees to implement necessary plant modifications (ADAMS Accession Nos. ML15075A455 and ML15075A456).

On March 22, 2016, NEI provided the NRC with an update on the industry initiative regarding their proposed plans to resolve the open phase condition issue (ADAMS Accession



Nos. ML16091A099 and ML16091A100). Specifically, NEI reported that approximately one-third of the industry fleet had implemented open phase monitoring or protection systems (as of March 22, 2016) and that the remaining plants planned to complete implementation by the December 31, 2018, due date. This letter also contained a detailed discussion of the actions already taken by the nuclear industry to resolve the open phase condition vulnerability for operating reactors.

On May 31, 2016, the NRC staff submitted SECY-16-0068, "Interim Enforcement Policy For Open Phase Conditions In Electric Power Systems For Operating Reactors," to the Commission (ADAMS Accession No. ML15219A327). In SECY-16-0068, the NRC staff requested Commission approval of an Interim Enforcement Policy (IEP), associated with inoperable electrical power systems (offsite and onsite) caused by an open phase condition design vulnerability in the offsite electric power system that would require a reactor shutdown or prevent a reactor startup if a licensee could not come into conformance within the TS-required completion times.

While awaiting the Commission's decision on SECY-16-0068, the NRC staff issued Temporary Instruction (TI) 2515/192, "Inspection of the Licensee's Interim Compensatory Measures Associated With The Open Phase Condition Design Vulnerabilities In Electric Power Systems" (ADAMS Accession No. ML16181A170), on November 9, 2016. The objective of this performance-based inspection guidance is to verify implementation of interim compensatory measures associated with an open phase condition design vulnerability in electric power system for operating reactors that have not completed permanent plant design modifications. The inspections of the power reactors were completed on March 31, 2017.

On March 9, 2017, the Commission issued the staff requirements memorandum (SRM) for SECY-16-0068 (ADAMS Accession No. ML17068A297). The Commission disapproved the staff's request to establish an IEP "for the purpose of exercising enforcement discretion for

purported noncompliance with NRC requirements and nonconformance with design criteria during the pendency of licensee implementation of actions to address an open phase condition.”

The SRM for SECY-16-0068 provided direction to the NRC staff regarding the implementation of the voluntary industry initiative to support the closure of BL 2012-01. Specifically, the SRM for SECY-16-0068 stated:

Going forward, the staff should verify that licensees have appropriately implemented the voluntary industry initiative. If the staff determines that a licensee does not adequately address potential OPCs, including updating the licensing basis to reflect the need to protect against OPCs, the staff should consider the appropriate regulatory mechanism to impose the necessary requirements to protect against OPCs using the current guidance on such matters from the Office of the General Counsel.

The staff should provide the Commission with a notation vote paper if this situation arises for any licensee or licensees, with options, including the staff's recommended path forward. In addition, if disagreements arise between the staff and the industry during implementation of the voluntary industry initiative, and the related issues have policy implications, the staff should promptly raise such issues to the Commission for resolution.

Once satisfactory implementation of the technical resolution has been verified for each licensee, the associated NRC Bulletin should be closed. The staff should update the Reactor Oversight Process to provide periodic oversight of industry's implementation of the OPC initiative.

### C. Applicable NRC Regulatory Requirements and Guidance

GDC 17 establishes requirements for the electric design of nuclear power plants for which a construction permit application was submitted after the Commission promulgated the GDC. GDC 17 states:

An onsite electric power system and an offsite electric power system shall be provided to permit functioning of structures, systems, and components important to safety. The safety function for each system (assuming the other system is not functioning) shall be to provide sufficient capacity and capability to assure that (1) specified acceptable fuel design limits and design conditions of the reactor coolant pressure boundary are not exceeded as a result of anticipated operational occurrences and (2) the core is cooled and containment integrity and other vital functions are maintained in the event of postulated accidents....

....

Electric power from the transmission network to the onsite electric distribution system shall be supplied by two physically independent circuits (not necessarily on separate rights of way) designed and located so as to minimize to the extent practical the likelihood of their simultaneous failure under operating and postulated accident and environmental conditions....

Provisions shall be included to minimize the probability of losing electric power from any of the remaining supplies as a result of, or coincident with, the loss of power generated by the nuclear power unit, the loss of power from the transmission network, or the loss of power from the onsite electric power supplies.

For current operating power plants designed before the promulgation of GDC 17, the plant-specific UFSAR sets forth criteria similar to GDC 17, which requires, among other things, that plants have an offsite and an onsite electric power system with adequate capacity and capability to permit the functioning of structures, systems, and components important to safety in the event of anticipated operational occurrences and postulated accidents.

10 CFR 50.55a(h)(2) requires nuclear power plants with construction permits issued after January 1, 1971, but before May 13, 1999, to have protection systems that meet the requirements in Institute of Electrical and Electronics Engineers (IEEE) Standard 279-1968, "Proposed IEEE Criteria for Nuclear Power Plant Protection Systems; IEEE Standard 279-1997, "Criteria for Protection Systems for Nuclear Power Generating Stations"; or IEEE Standard 603-1991, "Criteria for Safety Systems for Nuclear Power Generating Stations," and the correction sheet dated January 30, 1995. For nuclear power plants with construction permits issued before January 1, 1971, protection systems must be consistent with their licensing basis or meet the requirements of IEEE Standard 603-1991 and the correction sheet dated January 30, 1995.

10 CFR 50.55a(h)(3) requires that applications filed on or after May 13, 1999, for construction permits and licenses under 10 CFR Part 50, or for design approvals, design

certifications, and combined licenses under 10 CFR Part 52, must meet the requirements for safety systems in IEEE Standard 603-1991 and the correction sheet dated January 30, 1995. These IEEE standards state that the protection systems must automatically initiate appropriate protective actions whenever a condition the system monitors reaches a preset level. Once initiated, protective actions should be completed without manual intervention to satisfy the applicable requirements of the IEEE standards.

To support future licensing, the NRC staff also developed draft Branch Technical Position (BTP) 8-9, "Open Phase Conditions in Electric Power System Review Responsibilities" (ADAMS Accession No. ML14057A433), to provide design criteria and staff guidance consistent with applicable regulations and existing guidance found in Chapter 8 of the Standard Review Plan, "Electric Power Systems." Public comments requested through a *Federal Register* notice on June 5, 2014 (79 FR 32580) were addressed when finalizing the BTP. The final BTP 8-9 was published in July 2015 (ADAMS Accession No. ML15057A085), and the NRC staff plans to use this guidance for future licensing actions to verify compliance with applicable regulations related to electric power systems.

#### D. Safety Assessment

In the petition, the Petitioners stated that operating experience demonstrates that the open phase condition is a significant safety concern since a design basis event concurrent with an open phase condition would in most cases result in the plant exceeding criteria specified in 10 CFR 50.46, "Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors." The Petitioners also stated that the NRC's Accident Sequence Precursor (ASP) analysis for the Byron event indicated the risk, Conditional Core Damage Probability, as  $1 \times 10^{-4}$ .

At the time that the petition was filed with the NRC, thirteen open phase events had

been identified over the last fourteen years (in the United States and internationally). Since the time that compensatory measures were implemented at nuclear power plants, the licensee for Oconee, Unit 3, identified and reported the discovery of an open phase condition at the Oconee facility on December 7, 2015. Two separate transformers required for safe shutdown of the three operating Oconee nuclear units were identified with open phase conditions. Since the transformers are common to one onsite and one offsite power source, both power sources were rendered inoperable. The Petitioners concluded that this event indicates that the lessons learned and manual compensatory actions implemented after the Byron event by licensees were ineffective.

The NRC conducted a special inspection of this event (ADAMS Accession No. ML16057A062) and determined that, contrary to the event at Byron, Unit 2, on January 30, 2012, no effects were experienced on the Unit 3 plant buses because the plant buses were energized by the auxiliary transformer (supplied by the main generator) and no reactor trip signal occurred to transfer the plant buses to the startup transformer. If a reactor trip signal had occurred, it would have been similar to the Byron event, in that when the operators recognized power supply to the safety buses was deficient (one phase degraded), they could have energized the safety buses from an onsite emergency power source.

At Oconee, the onsite emergency power source is the Keowee hydro generators. The NRC inspectors determined that interim compensatory measures were in place at the facility at the time of the event and that the open phase condition was identified during a routine walk-down surveillance, not from automatic alarms in the control room as expected by the licensee. The inspectors noted in the inspection report that when the startup transformer is not supplying the plant buses, there is not enough current flow for the installed relays to detect an open phase condition. The fact that operators failed to receive alarms in the control room intended to alert them of an open phase condition during the December 7, 2015, event at Oconee highlights the

importance of implementing permanent design changes at all affected facilities.

The events that occurred at Byron Station, Unit 2, and Oconee Nuclear Station are considered by the NRC to be safety significant because the occurrence of the open phase condition either resulted or could have resulted in a design basis event (i.e., loss of offsite power), and a condition by which electric power from the onsite emergency power system was not automatically distributed to safety-related equipment needed to mitigate the consequences of the event. The events were also significant in that plant operators were presented with circumstances they did not immediately understand and they did not have adequate procedures for addressing an open phase condition.

Operating experience has shown that an open phase condition may result in one of many possible impacts on the plant and that the other actual open phase events in the United States have resulted in conditions much less severe from a safety perspective than the Byron event. There has been no instance of a design basis accident occurring independent of—yet simultaneously with—an open phase condition. This is to be expected given the low likelihood of an open phase condition and a design basis accident occurring during the same time interval.

Given the current range of estimates of these likelihoods for operating reactors, the risk associated with a design basis accident occurring independently yet simultaneously with an open phase condition is expected to be small. Therefore, the likelihood of a design basis accident concurrent with an open phase condition resulting in the plant exceeding criteria specified in 10 CFR 50.46 would accordingly be small.

The importance of implementing permanent design changes at all affected facilities is further supported by information in a white paper prepared by the NRC staff to provide risk insights on the impact of a postulated loss of a single phase in a three phase high voltage offsite power circuit (ADAMS Accession No. ML17234A631). The white paper assessed the change in core damage frequencies for specific plants emphasizing the plant type (BWR or PWR) and the

electrical switchyard configurations. In summary, the white paper demonstrates that an undetected open phase condition, as modeled in the study, has the potential to introduce an additional increase in core damage frequency. This assessment demonstrates that without modifications to install an OPIS, the core damage frequency for the plants evaluated might increase anywhere from 1E-3/yr to 1E-6/yr from their base core damage frequency. Based on risk insights derived from the assessment, the NRC staff concluded that the use of visual inspection rounds in switchyard areas alone will have minimal benefit for decreasing the impact of open phases. However, the use of a detection system and/or automatic actuation system (i.e., OPIS) would greatly reduce this vulnerability. Additional plant modifications, such as RCP seal loss of coolant accident mitigation systems, can also provide an additional measure of safety.

The insights in the white paper provide a more appropriate representation of change in plant risk from an open phase condition than those estimates cited by the Petitioners (i.e.,  $1 \times 10^{-4}$ ) that were developed through the NRC's ASP analysis. The NRC's ASP Program is one of three agency programs that assess the risk significance of operational events that have occurred at licensed U.S. commercial nuclear power plants. This program systematically evaluates the risk significance of events that have occurred, but due to the success of systems and operators to mitigate the event, did not result in inadequate reactor core cooling and severe core damage (i.e., precursor events). An accident sequence precursor is an initiating event or degraded condition that, when coupled with one or more postulated failures of mitigating structures, systems or components, or operator errors, could result in a plant condition involving inadequate core cooling and severe reactor core damage. The objective of ASP analyses is to estimate either the conditional probability of core damage (initiating event) or the increase in conditional probability of core damage (failures or degradations) given the occurrence of an initiating event or failure(s). Consequently, the results of calculations made in an ASP analysis

only reflect the probability that a core damage event could have occurred due to the combination of actual and postulated events. An ASP analysis is an example of a retrospective application of probabilistic risk assessment (PRA) in which an initiating event, equipment failures, degradations, and/or outages are mapped into the risk model to obtain a numerical estimate of their risk significance. The results from ASP analyses do not reflect the expected frequency of core damage events. This differs from the results produced in a plant-specific PRA. The results from a PRA provide an estimate of the frequency of core damage for the plant that accounts for the frequency of events that could initiate a sequence of equipment failures/unavailabilities and/or human errors leading to the occurrence of core damage.

Analyses performed as part of the NRC's ASP Program can be used to identify trends that may contribute to increased risk to the safety of operating reactors, and the results can be used to explore areas that may require additional evaluation to determine the appropriate regulatory response. Due to their conditional nature, the numerical result of an ASP analysis is not used by the NRC staff as a risk metric in determining the acceptability of changes to a facility's licensing basis.

The Petitioners further stated that based upon the applicable codes, standards, and regulations, the licensing bases and design bases for all U.S. nuclear power plants require that both offsite and onsite power systems must be operable and capable of supporting design bases functions. In the SRM for SECY-16-008, the Commission directed the NRC staff to address the open phase condition concern by verifying that licensees have appropriately implemented the voluntary industry initiative and, if a licensee does not adequately address potential open phase conditions, including updating the licensing basis to reflect the need to protect against open phase conditions, to consider the appropriate regulatory mechanism to impose the necessary requirements to protect against open phase conditions. In accordance with this direction, implementation of a second TI for the open phase condition in the NRC



Inspection Manual will focus NRC inspections on the evaluation of the industry initiative associated with the open phase condition design vulnerabilities. This effort will verify that licensees have appropriately implemented the voluntary initiative and updated the plant licensing basis. As stated in the SRM, if the staff determines that a licensee does not adequately address potential open phase conditions, including updating the licensing basis to reflect the need to protect against open phase conditions, the staff will consider the appropriate regulatory mechanism to impose the necessary requirements to protect against open phase conditions.

E. Evaluation of the Petitioners' Requests

This section includes both the Petitioners' requests and the NRC's decisions.

**Petitioners' Request 1: Issue orders which require immediate corrective actions including compensatory measures to address the operability of electric power systems in accordance with their plant technical specifications, and to implement plant modifications in accordance with current NRC regulatory requirements and staff guidance provided in the references within the 2.206 petition.**

**Petitioners' Request 2: Issue orders to immediately shutdown the nuclear power plants that are operating without addressing the significant design deficiency identified in BL 2012-01, "Design Vulnerability in Electric Power System," since the licensees are not in compliance with their Technical Specifications Limiting Condition for Operation 3.8.1 (typical) requirements related to onsite and offsite power systems.**

NRC Decision for Petitioners' Requests 1 and 2:

The NRC staff has decided not to issue orders at this time to operating reactor licensees regarding an open phase condition, as requested by the Petitioners. This decision is based upon the licensee responses to BL 2012-01, subsequent licensee responses to the NRC's RAI,

the actions taken by licensees in response to the industry open phase condition voluntary formal initiative (which included immediate compensatory measures and a commitment to install permanent design modifications), and the completion of NRC inspections using TI 2515/192 to verify whether the licensee has implemented the compensatory measures specified in TI Section 03.01 to mitigate the potential impact of an open phase condition. These comprehensive actions resolve the Petitioners' request to issue orders to licensees.

### **III. Conclusion**

Based upon the information summarized above, the NRC found the petition insufficient to warrant granting the Petitioners' Requests 1 and 2. The Petitioners' concerns related to the open phase condition vulnerability for operating reactors represent a safety issue that the Commission agreed should not be left unaddressed, and these concerns are currently being resolved through the implementation of the industry's open phase condition initiative. This approach is consistent with the Commission's direction to the NRC staff in the SRM for SECY-16-0068, recognizing that the nuclear industry is already implementing the voluntary industry initiative (permanent modifications such as OPIS). The NRC staff will determine each licensee's final actions through plant inspections, and the results will be made public in ADAMS, as appropriate.

On this basis, the Petitioners' requests are denied. The NRC does not plan to take the enforcement actions specified in the Petitioner's request. Therefore, the NRC is closing this petition.

As provided for in 10 CFR 2.206(c), a copy of this Director's Decision will be filed with the Secretary of the Commission for the Commission to review. The decision will constitute the final action of the Commission 25 days after the date of the decision unless the Commission, on its own motion, institutes a review of the decision within that time.

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Dated at Rockville, Maryland, this       day of       .

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Brian E. Holian, Acting Director  
Office of Nuclear Reactor Regulation

## LIST OF OPERATING REACTOR LICENSEES

### Arkansas Nuclear One, Units 1 and 2

Entergy Operations, Inc.  
Docket Nos. 50-313 and 50-368  
License Nos. DPR-51 and NPF-6

ANO Site Vice President  
Arkansas Nuclear One  
Entergy Operations, Inc.  
1448 S.R. 333  
Russellville, AR 72802

### Beaver Valley Power Station, Units 1 and 2

FirstEnergy Nuclear Operating Company  
Docket Nos. 50-334 and 50-412  
License Nos. DPR-66 and NPF-73

Mr. Marty L. Richey  
Site Vice President  
FirstEnergy Nuclear Operating Company  
Beaver Valley Power Station  
Mail Stop A-BV-SEB1  
P.O. Box 4, Route 168  
Shippingport, PA 15077

### Braidwood Station, Units 1 and 2

Exelon Generation Company, LLC  
Docket Nos. STN 50-456 and STN 50-457  
License Nos. NPF-72 and NPF-77

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer (CNO)  
Exelon Nuclear  
Braidwood Station  
4300 Winfield Road  
Warrenville, IL 60555

### Browns Ferry Nuclear Plant, Units 1, 2, and 3

Tennessee Valley Authority  
Docket Nos. 50-259, 50-260, and 50-296  
License Nos. DPR-33, DPR-52, and DPR-68

Mr. Joseph W. Shea  
Vice President, Nuclear Licensing  
Tennessee Valley Authority  
Browns Ferry Nuclear Plant  
1101 Market Street, LP 3R-C  
Chattanooga, TN 37402-2801

### Brunswick Steam Electric Plant, Units 1 and 2

Duke Energy Progress, LLC  
Docket Nos. 50-325 and 50-324  
License Nos. DPR-71 and DPR-62

Mr. William R. Gideon  
Site Vice President  
Brunswick Steam Electric Plant  
8470 River Rd., SE (M/C BNP001)  
Southport, NC 28461

### Byron Station, Units 1 and 2

Exelon Generation Company, LLC  
Docket Nos. STN 50-454 and STN 50-455  
License Nos. NPF-37 and NPF-66

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer (CNO)  
Exelon Nuclear  
Byron Station  
4300 Winfield Road  
Warrenville, IL 60555

Callaway Plant, Unit 1  
Union Electric Company  
Docket No. 50-483  
License No. NPF-30

Mr. Fadi Diya  
Senior Vice President and Chief  
Nuclear Officer  
Union Electric Company  
Callaway Plant  
P.O. Box 620  
Fulton, MO 65251

Calvert Cliffs Nuclear Power Plant, Units 1  
and 2

Calvert Cliffs Nuclear Power Plant, LLC  
Docket Nos. 50-317 and 50-318  
License Nos. DPR-53 and DPR-69

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer  
Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

Catawba Nuclear Station, Units 1 and 2

Duke Energy Carolinas, LLC  
Docket Nos. 50-413 and 50-414  
License Nos. NPF-35 and NPF-52

Mr. Robert T. Simril  
Site Vice President  
Duke Energy Carolinas, LLC  
Catawba Nuclear Station  
4800 Concord Road  
York, SC 29745

Clinton Power Station, Unit 1  
Exelon Generation Company, LLC  
Docket No. 50-461  
License No. NPF-62

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer (CNO)  
Exelon Nuclear  
Clinton Power Station  
4300 Winfield Road  
Warrenville, IL 60555

Columbia Generating Station

Energy Northwest  
Docket No. 50-397  
License No. NPF-21

Mr. Mark E. Reddemann  
Chief Executive Officer  
Energy Northwest  
Columbia Generating Station  
MD 1023  
North Power Plant Loop  
P.O. Box 968  
Richland, WA 99352-0968

Comanche Peak Nuclear Power Plant, Units 1  
and 2

TEX Operations Company, LLC  
Docket Nos. 50-445 and 50-446  
License Nos. NPF-87 and NPF-89

Mr. Ken J. Peters  
Senior Vice President & Chief  
Nuclear Officer  
Attention: Regulatory Affairs  
TEX Operations Company, LLC  
Comanche Peak Nuclear Power Plant  
P.O. Box 1002  
Glen Rose, TX 76043

Cooper Nuclear Station

Nebraska Public Power District  
Docket No. 50-298  
License No. DPR-46

Mr. Kenneth Higginbotham  
Vice President-Nuclear and CNO  
Nebraska Public Power District  
Cooper Nuclear Station  
72676 648A Avenue  
Brownville, NE 68321

Davis-Besse Nuclear Power Station, Unit 1

FirstEnergy Nuclear Operating Company  
Docket No. 50-346  
License No. NPF-3

Mr. Brian D. Boles  
Site Vice President  
FirstEnergy Nuclear Operating Company  
Davis-Besse Nuclear Power Station  
5501 N. State Route 2  
Mail Stop A-DB-3080  
Oak Harbor, OH 43449-9760

Diablo Canyon Power Plant, Units 1 and 2

Pacific Gas and Electric Company  
Docket Nos. 50-275 and 50-323  
License Nos. DPR-80 and DPR-82

Mr. Edward D. Halpin  
Senior Vice President, Generation  
and Chief Nuclear Officer  
Pacific Gas and Electric Company  
Diablo Canyon Power Plant  
P.O. Box 56, Mail Code 104/6  
Avila Beach, CA 93424

Donald C. Cook Nuclear Plant, Units 1 and 2

Indiana Michigan Power Company  
Docket Nos. 50-315 and 50-316  
License Nos. DPR-58 and DPR-74

Mr. Joel P. Gebbie  
Senior Vice President and Chief  
Nuclear Officer  
Indiana Michigan Power Company  
Nuclear Generation Group  
Donald C. Cook Nuclear Plant  
One Cook Place  
Bridgman, MI 49106

Dresden Nuclear Power Station, Units 2 and 3

Exelon Generation Company, LLC  
Docket Nos. 50-237 and 50-249  
License Nos. DPR-19 and DPR-25

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer (CNO)  
Exelon Nuclear  
Dresden Nuclear Power Station  
4300 Winfield Road  
Warrenville, IL 60555

Duane Arnold Energy Center

NextEra Energy Duane Arnold, LLC  
Docket No. 50-331  
License No. DPR-49

Mr. Thomas A. Vehec  
Vice President  
NextEra Energy  
Duane Arnold Energy Center  
3277 DAEC Road  
Palo, IA 52324-9785

Edwin I. Hatch Nuclear Plant, Units 1 and 2

Southern Nuclear Operating Company, Inc.  
Docket Nos. 50-321 and 50-366  
License Nos. DPR-57 and NPF-5

Mr. James J. Hutto  
Regulatory Affairs Director  
Southern Nuclear Operating Company, Inc.  
Edwin I. Hatch Nuclear Plant  
P.O. Box 1295 / Bin 038  
Birmingham, AL 35201-1295

Fermi 2

DTE Electric Company  
Docket No. 50-341  
License No. NPF-43

Mr. Paul Fessler, Senior Vice President  
and Chief Nuclear Officer  
DTE Electric Company  
Fermi 2 - 210 NOC  
6400 North Dixie Highway  
Newport, MI 48166

Fort Calhoun Station, Unit 1  
Omaha Public Power District  
Docket No. 50-285  
License No. DPR-40

Ms. Mary J. Fisher  
Senior Director Fort Calhoun  
Station Decommissioning  
Omaha Public Power District  
Fort Calhoun Station  
9610 Power Lane, Mail Stop FC-2-4  
Blair, NE 68008

Grand Gulf Nuclear Station, Unit 1  
Entergy Operations, Inc.  
Docket No. 50-416  
License No. NPF-29

Vice President, Operations  
Entergy Operations, Inc.  
Grand Gulf Nuclear Station  
P.O. Box 756  
Port Gibson, MS 39150

H. B. Robinson Steam Electric Plant, Unit 2  
Duke Energy Progress, LLC  
Docket No. 50-261  
License No. DPR-23

Mr. Ernest J. Kapopoulos, Jr.  
Site Vice President  
H. B. Robinson Steam Electric Plant  
Duke Energy Progress, LLC  
3581 West Entrance Road, RNPA01  
Hartsville, SC 29550

Hope Creek Generating Station  
PSEG Nuclear, LLC  
Docket No. 50-354  
License No. NPF-57

Mr. Peter P. Sena, III  
President and Chief Nuclear Officer  
PSEG Nuclear LLC – N09  
Hope Creek Generating Station  
P.O. Box 236  
Hancocks Bridge, NJ 08038

Indian Point Nuclear Generating Units 1, 2,  
and 3  
Entergy Nuclear Operations, Inc.  
Docket Nos. 50-247 and 50-286  
License Nos. DPR-26 and DPR-64

Vice President, Operations  
Entergy Nuclear Operations, Inc.  
Indian Point Energy Center  
450 Broadway, GSB  
P.O. Box 249  
Buchanan, NY 10511-0249

James A. FitzPatrick Nuclear Power Plant  
Entergy Nuclear Operations, Inc.  
Docket No. 50-333  
License No. DPR-59

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer  
Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

Joseph M. Farley Nuclear Plant, Units 1 and 2  
Southern Nuclear Operating Company, Inc.  
Docket Nos. 50-348 and 50-364  
License Nos. NPF-2 and NPF-8

Mr. James J. Hutto  
Regulatory Affairs Director  
Southern Nuclear Operating Company, Inc.  
Joseph M. Farley Nuclear Plant  
P.O. Box 1295 / Bin 038  
Birmingham, AL 35242

LaSalle County Station, Units 1 and 2  
Exelon Generation Company, LLC  
Docket Nos. 50-373 and 50-374  
License Nos. NPF-11 and NPF-18

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer (CNO)  
Exelon Nuclear  
LaSalle County Station  
4300 Winfield Road  
Warrenville, IL 60555

Limerick Generating Station, Units 1 and 2

Exelon Generation Company, LLC  
Docket Nos. 50-352 and 50-353  
License Nos. NPF-39 and NPF-85

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer  
Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

McGuire Nuclear Station, Units 1 and 2

Duke Energy Carolinas, LLC  
Docket Nos. 50-369 and 50-370  
License Nos. NPF-9 and NPF-17

Mr. Steven D. Capps, Vice President  
Duke Energy Carolinas, LLC  
McGuire Nuclear Station  
12700 Hagers Ferry Road  
Huntersville, NC 28078-8985

Millstone Power Station, Units 2 and 3

Dominion Nuclear Connecticut, Inc.  
Docket Nos. 50-336 and 50-423  
License Nos. DPR-65 and NPF-49

Mr. Daniel G. Stoddard  
Senior Vice President & Chief Nuclear Officer  
Dominion Nuclear Connecticut, Inc.  
Millstone Power Station  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060-6711

Monticello Nuclear Generating Plant

Northern States Power Company  
Docket No. 50-263  
License No. DPR-22

Mr. Peter A. Gardner  
Senior Vice President and Chief  
Nuclear Officer  
Northern States Power Company - Minnesota  
Monticello Nuclear Generating Plant  
2807 West County Road 75  
Monticello, MN 55362-9637

Nine Mile Point Nuclear Station, Units 1 and 2

Nine Mile Point Nuclear Station, LLC  
Exelon Generation Company, LLC  
Docket Nos. 50-220 and 50-410  
License Nos. DPR-63 and NPF-69

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer  
Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

North Anna Power Station, Units 1 and 2

Virginia Electric and Power Company  
Docket Nos. 50-338 and 50-339  
License Nos. NPF-4 and NPF-7

Mr. David G. Stoddard, Senior Vice President  
and Chief Nuclear Officer  
Virginia Electric and Power Company  
North Anna Power Station  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060

Oconee Nuclear Station, Units 1, 2, and 3

Duke Energy Carolinas, LLC  
Docket Nos. 50-269, 50-270, and 50-287  
License Nos. DPR-38, DPR-47, and DPR-55

Mr. Thomas D. Ray  
Vice President  
Oconee Nuclear Station  
Duke Energy Corporation  
7800 Rochester Highway  
Seneca, SC 29672-0752



Oyster Creek Nuclear Generating Station  
Exelon Generation Company, LLC  
Docket No. 50-219  
License No. DPR-16

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer  
Exelon Nuclear  
Oyster Creek Nuclear Generating Station  
4300 Winfield Road  
Warrenville, IL 60555

Palisades Nuclear Plant  
Entergy Nuclear Operations, Inc.  
Docket No. 50-255  
License No. DPR-20

Vice President, Operations  
Entergy Nuclear Operations, Inc.  
Palisades Nuclear Plant  
27780 Blue Star Memorial Highway  
Covert, MI 49043-9530

Palo Verde Nuclear Generating Station, Units  
1, 2, and 3  
Arizona Public Service Company  
Docket Nos. STN 50-528, STN 50-529,  
and STN 50-530  
License Nos. NPF-41, NPF-51, and NPF-74

Mr. Robert S. Bement  
Executive Vice President Nuclear/  
Chief Nuclear Officer  
Arizona Public Service Company  
Palo Verde Nuclear Generating Station  
P.O. Box 52034  
Mail Station 7602  
Phoenix, AZ 85072-2034

Peach Bottom Atomic Power Station, Units 2  
and 3  
Exelon Generation Company, LLC  
Docket Nos. 50-277 and 50-278  
License Nos. DPR-44 and DPR-56

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer  
Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

Perry Nuclear Power Plant, Unit 1  
FirstEnergy Nuclear Operating Company  
Docket No. 50-440  
License No. NPF-58

Mr. David B. Hamilton  
Site Vice President  
FirstEnergy Nuclear Operating Company  
Perry Nuclear Power Plant  
Mail Stop A-PY-290  
P.O. Box 97, 10 Center Road  
Perry, OH 44081-0097

Pilgrim Nuclear Power Station  
Entergy Nuclear Operations, Inc.  
Docket No. 50-293  
License No. DPR-35

Mr. John A. Dent, Jr.  
Site Vice President  
Entergy Nuclear Operations, Inc.  
Pilgrim Nuclear Power Station  
600 Rocky Hill Road  
Plymouth, MA 02360-5508

Point Beach Nuclear Plant, Units 1 and 2  
NextEra Energy Point Beach, LLC  
Docket Nos. 50-266 and 50-301  
License Nos. DPR-24 and DPR-27

Mr. Robert Coffey  
Site Vice President  
NextEra Energy Point Beach, LLC  
6610 Nuclear Road  
Two Rivers, WI 54241-9516

Prairie Island Nuclear Generating Plant,  
Units 1 and 2  
Northern States Power Company - Minnesota  
Docket Nos. 50-282 and 50-306  
License Nos. DPR-42 and DPR-60

Mr. Scott D. Northard  
Acting Vice President  
Northern States Power Company - Minnesota  
Prairie Island Nuclear Generating Plant  
1717 Wakonade Drive East  
Welch, MN 55089-9642

Quad Cities Nuclear Power Station, Units 1  
and 2  
Exelon Generation Company, LLC  
Docket Nos. 50-254 and 50-265  
License Nos. DPR-29 and DPR-30

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer  
Exelon Nuclear  
Quad Cities Nuclear Power Station  
4300 Winfield Road  
Warrenville, IL 60555

R. E. Ginna Nuclear Power Plant  
R. E. Ginna Nuclear Power Plant, LLC  
Exelon Generation Company, LLC  
Docket No. 50-244  
License No. DPR-18

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer  
Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

River Bend Station, Unit 1  
Entergy Operations, Inc.  
Docket No. 50-458  
License No. NPF-47

Vice President, Operations  
Entergy Operations, Inc.  
River Bend Station  
5485 U.S. Highway 61N  
St. Francisville, LA 70775

Salem Nuclear Generating Station, Units 1  
and 2  
PSEG Nuclear, LLC  
Docket Nos. 50-272 and 50-311  
License Nos. DPR-70 and DPR-75

Mr. Peter P. Sena, III  
President and Chief Nuclear Officer  
PSEG Nuclear LLC – N09  
Salem Nuclear Generating Station  
P.O. Box 236  
Hancocks Bridge, NJ 08038

Seabrook Station, Unit 1  
NextEra Energy Seabrook, LLC  
Docket No 50-443  
License No. NFP-86

Mr. Mano Nazar  
President and Chief Nuclear Officer,  
Nuclear Division  
NextEra Energy Seabrook, LLC  
Mail Stop: EX/JB  
700 Universe Blvd.  
Juno Beach, FL 33408

Sequoyah Nuclear Plant, Units 1 and 2  
Tennessee Valley Authority  
Docket Nos. 50-327 and 50-328  
License Nos. DPR-77 and DPR-79

Mr. Joseph W. Shea  
Vice President, Nuclear Licensing  
Tennessee Valley Authority  
Sequoyah Nuclear Plant  
1101 Market Street, LP 3R-C  
Chattanooga, TN 37402-2801

Shearon Harris Nuclear Power Plant, Unit 1

Duke Energy Progress, LLC  
Docket No. 50-400  
License No. NPF-63

Ms. Tanya Hamilton  
Site Vice President  
Duke Energy Progress, LLC  
Shearon Harris Nuclear Power Plant  
5413 Shearon Harris Rd.  
M/C HNP01  
New Hill, NC 27562-0165

South Texas Project, Units 1 and 2

STP Nuclear Operating Company  
Docket Nos. 50-498 and 50-499  
License Nos. NPF-76 and NPF-80

Mr. G. T. Powell  
Executive Vice President and CNO  
STP Nuclear Operating Company  
South Texas Project  
P.O. Box 289  
Wadsworth, TX 77483

St. Lucie Plant, Units 1 and 2

Florida Power and Light Company  
Docket Nos. 50-335 and 50-389  
License Nos. DPR-67 and NPF-16

Mr. Mano Nazar  
President and Chief Nuclear Officer  
Nuclear Division  
Florida Power & Light Company  
Mail Stop: EX/JB  
700 Universe Blvd.  
Juno Beach, FL 33408

Surry Power Station, Units 1 and 2

Virginia Electric and Power Company  
Docket Nos. 50-280 and 50-281  
License Nos. DPR-32 and DPR-37

Mr. David G. Stoddard, Senior Vice President  
and Chief Nuclear Officer  
Dominion Nuclear  
Virginia Electric and Power Company  
Surry Power Station  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060-6711

Susquehanna Steam Electric Station, Units 1  
and 2

Susquehanna Nuclear, LLC  
Docket Nos. 50-387 and 50-388  
License Nos. NPF-14 and NPF-22

Mr. Brad Berryman  
Site Vice President  
Susquehanna Nuclear, LLC  
769 Salem Boulevard  
NUCSB3  
Berwick, PA 18603-0467

Three Mile Island Nuclear Station, Unit 1

Exelon Generation Company, LLC  
Docket No. 50-289  
License No. DPR-50

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer  
Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

Turkey Point Nuclear Generating Units 3 and 4

Florida Power and Light Company  
Docket Nos. 50-250 and 50-251  
License Nos. DPR-31 and DPR-41

Mr. Mano Nazar  
President and Chief Nuclear Officer  
Nuclear Division  
Florida Power & Light Company  
Mail Stop: EX/JB  
700 Universe Blvd.  
Juno Beach, FL 33408

Virgil C. Summer Nuclear Station, Unit 1

South Carolina Electric & Gas Company  
Docket No. 50-395  
License No. NPF-12

Mr. George Lippard, III  
Vice President, Nuclear Operations  
South Carolina Electric & Gas Company  
Virgil C. Summer Nuclear Station  
P.O. Box 88, Mail Code 800  
Jenkinsville, SC 29065

Vogtle Electric Generating Plant, Units 1 and 2  
Southern Nuclear Operating Company, Inc.  
Docket Nos. 50-424 and 50-425  
License Nos. NPF-68 and NPF-81

Mr. James J. Hutto  
Regulatory Affairs Director  
Vogtle Electric Generating Plant  
Southern Nuclear Operating Company, Inc.  
P.O. Box 1295 / Bin 038  
Birmingham, AL 35201-1295

Waterford Steam Electric Station, Unit 3  
Entergy Operations, Inc.  
Docket No. 50-382  
License No. NPF-38

Site Vice President  
Entergy Operations, Inc.  
Waterford Steam Electric Station  
17265 River Road  
Killona, LA 70057-3093

Watts Bar Nuclear Plant, Units 1 and 2  
Tennessee Valley Authority  
Docket No. 50-390 and 50-391  
License No. NPF-90 and NPF-96

Mr. Joseph W. Shea  
Vice President, Nuclear Licensing  
Tennessee Valley Authority  
Watts Bar Nuclear Plant  
1101 Market Street, LP 3R-C  
Chattanooga, TN 37402-2801

Wolf Creek Generating Station  
Wolf Creek Nuclear Operating Corporation  
Docket No. 50-482  
License No. NPF-42

Mr. Adam C. Heflin  
President, Chief Executive Officer,  
and Chief Nuclear Officer  
Wolf Creek Nuclear Operating Corporation  
Wolf Creek Generating Station  
P.O. Box 411  
Burlington, KS 66839

PROPOSED DIRECTOR'S DECISION ON OPEN PHASE CONDITION 2.206 – ALL CURRENT OPERATING NUCLEAR PLANTS DATED SEPTEMBER 18, 2017

DISTRIBUTION: OEDO-16-00104: (Letter to Licensee Dated September 18, 2017)

PUBLIC	LPL1-1 r/f
LPL2-1 r/f	LPL2-2 r/f
LPL3-2 r/f	LPL4 r/f
RidsEdoMailCenter Resource	RidsOgcRp Resource
RidRgn2MailCenter Resource	RidRgn3MailCenter Resource
RidsNrrOd Resource	Rids AcrsAcnw&MailCenter
RidsNrrLAMHenderson Resource	RidsOpaMailCenter Resource
RidsNrrDorlLp1-1 Resource	RidsNrrDorlLp1-2 Resource
RidsNrrDorlLp2-2 Resource	RidsNrrDorlLp3-1 Resource
RidsNrrDorlLp4 Resource	RidsNrrDpr Resource
MMiller, Region 2	RidsNrrPMBellefonte1and2 Resource
ABurritt, Region1	RidsNrrPMBrunswick Resource
TFarnholtz, Region 4	RidsNrrPMCAlvertCliffs Resource
RidsNrrPMBeaverValley Resource	RidsNrrPMColumbia Resource
RidsNrrPMBrownsFerry Resource	RidsNrrPMCrystalRiver Resource
RidsNrrPMCallaway Resource	RidsNrrPMDiabloCanyon Resource
RidsNrrPMClinton Resource	RidsNrrPMFarley Resource
RidsNrrPMCooper Resource	RidsNrrPMFortCalhoun Resource
RidsNrrPMDCCook Resource	RidsNrrPMHopeCreek Resource
RidsNrrPMDuaneArnold Resource	RidsNrrPMLaSalle Resource
RidsNrrPMFitzPatrick Resource	RidsNrrPMMillstone Resource
RidsNrrPMHatch Resource	RidsNrrPMNorthAnna Resource
RidsNrrPMKewaunee Resource	RidsNrrPMPalisades Resource
RidsNrrPMMcGuire Resource	RidsNrrPMPerry Resource
RidsNrrPMNineMilePoint Resource	RidsNrrPMPrairieIsland Resource
RidsNrrPMOysterCreek Resource	RidsNrrPMRiverBend Resource
RidsNrrPMPeachBottom Resource	RidsNrrPMSanOnofre Resource
RidsNrrPMPointBeach Resource	RidsNrrPMShearonHarris Resource
RidsNrrPMREGinna Resource	RidsNrrPMSummer Resource
RidsNrrPMSalem Resource	RidsNrrPMTThreeMileIsland Resource
RidsNrrPMSequoyah Resource	RidsNrrPMVogle Resource
RidsNrrPMSStLucie Resource	RidsNrrPMWattsBar2 Resource
RidsNrrPMSusquehanna Resource	RidsNroDnrLb4 Resource
RidsNroDseaRgs2 Resource	RidsNrrPMWattsBar1 Resource

**ADAMS Accession Nos.**

Package: ML17156A179  
 Acknowledgement Letter: ML16069A214  
 Letter to Petitioner: ML17156A197

Incoming petition: ML16050A212  
 Proposed Director's Decision: ML17156A180  
 Letter to Licensees: ML17156A214

\*Concurrence via e-mail

OFFICE	DPR/PGCB/PM	DPR/PGCB/LA	NRR/DORL/PM	NRR/DRA/D	NRR/DE/D	NRO/DCIP/D (PRB Chairman)
NAME	TMensah	Elee	MBanic	JGitter*	JLubinski*	TMcGinty*
DATE	6/19/17	6/12/17	6/15/17	7/11/17	7/18/17	7/18/17
OFFICE	OGC	NRR/DORL/D	NRR/D	NRR/DORL/D		
NAME	DCyilkowski*	ABoland	BHolian	ABoland		
DATE	8/8/17	8/17/17	9/18/17	9/18/17		

OFFICIAL RECORD COPY