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Nuclear  
Exelon Generation  
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10 CFR 50.90

RS-04-125  
5928-04-20179  
2130-04-20159  
November 29, 2004

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555-0001

Braidwood Station, Units 1 and 2  
Facility Operating License Nos. NPF-72 and NPF-77  
NRC Docket Nos. STN 50-456 and STN 50-457

Byron Station, Units 1 and 2  
Facility Operating License Nos. NPF-37 and NPF-66  
NRC Docket Nos. STN 50-454 and STN 50-455

Clinton Power Station, Unit 1  
Facility Operating License No. NPF-62  
NRC Docket No. 50-461

Dresden Nuclear Power Station, Units 2 and 3  
Facility Operating License Nos. DPR-19 and DPR-25  
NRC Docket Nos. 50-237 and 50-249

LaSalle County Station, Units 1 and 2  
Facility Operating License Nos. NPF-11 and NPF-18  
NRC Docket Nos. 50-373 and 50-374

Limerick Generating Station, Units 1 and 2  
Facility Operating License Nos. NPF-39 and NPF-85  
NRC Docket Nos. 50-352 and 50-353

Oyster Creek Generating Station  
Facility Operating License No. DPR-16  
NRC Docket No. 50-219

A102

Peach Bottom Atomic Power Station, Units 2 and 3  
Facility Operating License Nos. DPR-44 and DPR-56  
NRC Docket Nos. 50-277 and 50-278

Quad Cities Nuclear Power Station, Units 1 and 2  
Facility Operating License Nos. DPR-29 and DPR-30  
NRC Docket Nos. 50-254 and 50-265

Three Mile Island Nuclear Station, Unit 1  
Facility Operating License No. DPR-50  
NRC Docket No. 50-289

Subject: Exelon/AmerGen Request for Amendment to Technical Specifications  
Administrative Controls to Incorporate Requirement for Control Room Envelope  
Integrity Program

- References: (1) Exelon/AmerGen 180-Day Response To NRC Generic Letter 2003-01,  
"Control Room Habitability," dated December 9, 2003.
- (2) Exelon/AmerGen letter to NRC, "Exelon/AmerGen Notification of Deferral of  
the Commitment to Submit License Amendment Request Incorporating  
Requirement for Control Room Envelope Integrity Program into Technical  
Specifications," dated September 30, 2004.

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (Exelon), and AmerGen Energy Company, LLC (AmerGen) propose changes to Appendix A, Technical Specifications (TS), of the Facility Operating Licenses listed above. The proposed changes are to the "Administrative Controls" Sections and will incorporate a new administrative program requirement for Control Room Habitability. The program will ensure that existing procedures and processes in place are such that the plant continues to be operated and maintained in accordance with the licensing and design bases for control room habitability. The proposed changes are in accordance with the individual plant commitments provided in the Exelon/AmerGen response to NRC Generic Letter (GL) 2003-01, "Control Room Habitability," dated December 9, 2003 (Reference 1). As identified in Reference 2, the initial commitment date for submittal of the proposed License Amendment Request was extended from September 30, 2004 to November 30, 2004.

These proposed changes have been reviewed by the Plant Operations Review Committees at each of the stations, and approved by the Nuclear Safety Review Board.

Using the standards in 10 CFR 50.92, Exelon/AmerGen has concluded that these proposed changes do not constitute a significant hazards consideration, as described in the enclosed analysis performed in accordance with 10 CFR 50.91(a)(1). Pursuant to 10 CFR 50.91(b)(1), a copy of this application for changes to the Technical Specifications and Operating License is being provided to the designated state official for the States of Illinois, New Jersey, and Pennsylvania, as well as to the local township and county officials in which the facility is located, as appropriate.

*Handwritten signature/initials: A102*

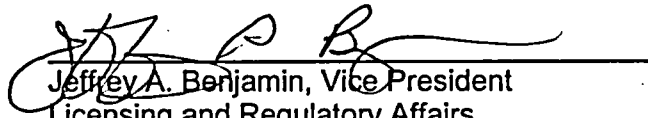
We request approval of these proposed changes by November 29, 2005, with the changes being implemented within 60 days of issuance of the approved amendment.

No new regulatory commitments are established by this submittal. If any additional information is needed, please contact Mr. David J. Distel at (610) 765-5517.

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,

Executed on 29 Nov, 2004

  
Jeffrey A. Benjamin, Vice President  
Licensing and Regulatory Affairs  
Exelon Generation Company, LLC  
AmerGen Energy Company, LLC

Enclosures: 1) Description of Proposed Changes, Technical Analysis, and Regulatory Analysis  
2) Marked-up Technical Specification Pages for Proposed Changes

cc: Regional Administrator, NRC Region I  
Regional Administrator, NRC Region III  
NRC Senior Resident Inspector – Braidwood Station  
NRC Senior Resident Inspector – Byron Station  
NRC Senior Resident Inspector – Clinton Power Station  
NRC Senior Resident Inspector – Dresden Nuclear Power Station  
NRC Senior Resident Inspector – LaSalle County Station  
NRC Senior Resident Inspector – Limerick Generating Station  
NRC Senior Resident Inspector – Oyster Creek Generating Station  
NRC Senior Resident Inspector – Peach Bottom Atomic Power Station  
NRC Senior Resident Inspector – TMI Unit 1  
NRC Senior Resident Inspector – Quad Cities Nuclear Power Station  
Illinois Emergency Management Agency, Division of Nuclear Safety  
Director, Bureau of Radiation Protection, Pennsylvania Department of Environmental Resources  
Director, Bureau of Nuclear Engineering, New Jersey Department of Environmental Protection  
Chairman, Board of County Commissioners of Dauphin County, PA  
Chairman, Board of Supervisors of Londonderry Township, PA  
Mayor of Lacey Township, Forked River, NJ  
R. I. McLean, State of Maryland

## **ENCLOSURE 1**

### **Description of Proposed Changes, Technical Analysis, and Regulatory Analysis**

**Subject: Exelon/AmerGen Request for Amendment to Technical Specification  
Administrative Controls to Incorporate Requirement for Control Room  
Envelope Integrity Program**

#### **1.0 DESCRIPTION**

#### **2.0 PROPOSED CHANGE**

#### **3.0 BACKGROUND**

#### **4.0 TECHNICAL ANALYSIS**

#### **5.0 REGULATORY ANALYSIS**

##### **5.1 No Significant Hazards Consideration**

##### **5.2 Applicable Regulatory Requirements/Criteria**

#### **6.0 ENVIRONMENTAL CONSIDERATION**

#### **7.0 REFERENCES**

## 1.0 DESCRIPTION

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (Exelon), and AmerGen Energy Company, LLC (AmerGen) propose changes to Appendix A, Technical Specifications (TS), for the following Operating Licenses.

### Exelon

Braidwood Station, Units 1 and 2	Facility Operating License Nos. NPF-72 and NPF-77
Byron Station, Units 1 and 2	Facility Operating License Nos. NPF-37 and NPF-66
Dresden Nuclear Power Station, Units 2 and 3	Facility Operating License Nos. DPR-19 and DPR-25
LaSalle County Station, Units 1 and 2	Facility Operating License Nos. NPF-11 and NPF-18
Limerick Generating Station, Units 1 and 2	Facility Operating License Nos. NPF-39 and NPF-85
Peach Bottom Atomic Power Station, Units 2 and 3	Facility Operating License Nos. DPR-44 and DPR-56
Quad Cities Nuclear Power Station, Units 1 and 2	Facility Operating License Nos. DPR-29 and DPR-30

### AmerGen

Clinton Power Station, Unit 1	Facility Operating License No. NPF-62
Oyster Creek Generating Station	Facility Operating License No. DPR-16
Three Mile Island Nuclear Station Unit 1	Facility Operating License No. DPR-50

The proposed changes are to the "Administrative Controls" Sections and incorporate a new administrative program requirement for control room habitability. The program will ensure that existing procedures and processes in place are such that the plant continues to be operated and maintained in accordance with the licensing and design bases for control room habitability. These proposed changes are in accordance with the individual plant commitments provided in the Exelon/AmerGen response to NRC Generic Letter (GL) 2003-01, "Control Room Habitability," dated December 9, 2003 (Reference 1).

The marked up pages showing the requested changes are provided in Enclosure 2.

## 2.0 PROPOSED CHANGES

A new Control Room Envelope (CRE) Integrity Program is added to the Technical Specification Administrative Control Programs and Manuals. The administrative control requires the establishment of a new program to ensure CRE integrity is maintained.

## 3.0 BACKGROUND

The control room is the plant area, defined in the plant licensing basis, from which actions are taken to operate the plant safely under normal conditions and to maintain the reactor in a safe condition during design basis accident situations. The habitability criteria of Criterion 19, "Control room," of 10 CFR Part 50, Appendix A, "General Design Criteria for Nuclear Power

Plants," or the associated proposed Atomic Energy Commission (AEC) General Design Criteria, dated July 1967 for plants with construction permits issued prior to May 21, 1971, apply to this area. The CRE is the plant area, as defined in the plant licensing basis, that in the event of an emergency, can be isolated from the plant areas and the environment external to the CRE. This area encompasses the control room, and may encompass other non-critical areas to which frequent personnel access or continuous occupancy is not necessary in the event of an accident. The structures that make up the CRE are designed and maintained to limit the inleakage of radioactive and hazardous materials from areas external to the CRE. The primary function of the control room habitability systems is to provide a safe environment in which the operators can control the nuclear reactor and auxiliary systems during normal operations and can safely shut down these systems during abnormal situations to protect the health and safety of the public. The control room must be safe so that operators can remain in the control room to monitor plant performance and take appropriate mitigating actions.

The addition of the Technical Specifications requirement for a CRE Integrity Program is a commitment in Reference 1. Control room habitability must be maintained during normal operations as well as during radiological or hazardous chemical emergencies, or smoke events, as applicable to each plant's licensing basis. The proposed Technical Specifications CRE Integrity Program requirement, along with the control room habitability actions and provisions described in Reference 1, provide additional assurance that the control room remains safe for operators to perform required actions under normal and abnormal conditions.

#### **4.0 TECHNICAL ANALYSIS**

The proposed changes establish a Technical Specifications administrative requirement for each plant to implement and maintain a CRE Integrity Program. The CRE Integrity Program contains several programmatic elements that work together to maintain the control room habitability requirements that are specified in 10 CFR 50, Appendix A, Criterion 19, or the associated proposed Atomic Energy Commission (AEC) General Design Criteria, dated July 1967 for plants with construction permits issued prior to May 21, 1971. The proposed Technical Specifications required CRE Integrity Program utilizes guidance contained in Regulatory Guide 1.196, "Control Room Habitability At Light-Water Nuclear Power Reactors," May 2003, and Nuclear Energy Institute (NEI) 99-03, "Control Room Habitability Guidance," Revision 1, dated March 2003, to implement the appropriate programmatic requirements for maintaining control room envelope integrity at each plant.

The proposed Technical Specifications revision incorporates the requirement to establish, implement and maintain the CRE Integrity Program, and specifies the overall scope of the controls to be maintained in the CRE Integrity Program.

Implementation of the CRE Integrity Program will mainly be through the proper control and use of existing and future administrative, operating, and maintenance procedures. Procedures will be reviewed and revised as needed to ensure covered activities adequately address control room habitability concerns. If procedures are changed such that new control room habitability system operating lineups, parameters, or CRE integrity vulnerabilities are introduced, appropriate post-change testing will be specified commensurate with the changes made.

All of the affected Exelon/AmerGen nuclear sites have, or will have, performed a tracer gas test to quantify the amount of control room unfiltered inleakage, as described in Reference 1. These baseline tracer gas tests are being performed in accordance with the standard test method described in American Society for Testing and Materials (ASTM) consensus standard E741, "Standard Test Method for Determining Air Change in a Single Zone by Means of a Tracer Gas Dilution." This measured value is then compared to that used in radiological and hazardous chemical consequence analyses, where applicable, to ensure the licensing basis analyses remain bounding. Also as described in Reference 1, tracer gas testing is not required for Oyster Creek since control room air filtration is not assumed in the radiological analyses for the control room operator. Control room differential pressure testing will continue in accordance with individual site's Technical Specifications or other regulatory commitments. Differential pressure testing, performed in conjunction with implementation of the CRE Integrity Program, will ensure that the CRE boundary remains intact. Therefore, routine periodic tracer gas testing is not required.

Maintenance and modification activities will be appropriately controlled. Procedures will be evaluated and revised to ensure that the activity's effect on control room habitability is considered. These activities will be evaluated to determine the type of testing that may be required after completion of the work. Additional testing, including potential re-baseline tracer gas testing may be required, commensurate with the type and quantity of work performed.

Periodic assessments specified in the CRE Integrity Program will track system performance. These thorough assessments will take all aspects of control room habitability into consideration.

Each individual site's corrective action program will be assessed with regard to the quantity and severity of problems encountered with the control room envelope and habitability systems to determine if additional testing is warranted.

The Exelon/AmerGen CRE Integrity Program will contain process requirements for maintaining control room envelope boundary/breach control, plant procedure control, hazardous chemical control, design change control, CRE integrity testing methods, safety analyses control, maintenance control, and periodic control room habitability assessment and evaluation requirements.

The CRE boundary/breach control process requirements will assure that boundary breaches are recognized, that uncontrolled breaches to the CRE do not occur and that known breaches do not result in an unanalyzed condition. Procedure control requirements will ensure that potential CRE integrity issues are recognized and appropriately considered when generating or revising plant procedures, and will provide guidance for post-procedure change testing, when appropriate, to ensure that safety analysis assumptions remain valid. Program requirements for hazardous chemical control will include guidance for hazard screening, risk evaluation, control room habitability evaluation, protection measures, emergency planning, and periodic reassessment of offsite chemical hazards. Design control requirements will ensure that CRE integrity issues are appropriately addressed in the design change/configuration control processes, and will provide the necessary consideration of control room habitability in post-modification testing criteria to ensure safety analysis assumptions remain valid. The safety analysis controls will ensure that calculation revisions are reviewed for impacts on control room habitability and that safety analysis assumptions are maintained. Maintenance controls will ensure that CRE integrity issues are properly addressed during the performance of plant maintenance activities, and will provide preventive maintenance requirements for CRE boundary

isolation dampers. Periodic control room habitability assessment requirements will ensure that the plant maintains the control room habitability licensing and design basis, and will ensure the effectiveness of the CRE Integrity Program implementation.

Note that the Byron Station and Braidwood Station administrative program description contains one additional program requirement, in contrast to the other station programs, to verify a positive pressure in all areas of the control room envelope (i.e., TS 5.5.18.d). This requirement is included in the Byron Station and Braidwood Station CRE Integrity Program in support of a future licensing amendment request that will request implementation of the alternate source term (AST) methodology. One of the changes that will be proposed in the future AST amendment request is to delete the requirement to maintain the upper cable spreading room at a positive pressure relative to areas adjacent to the control room area. The AST amendment request is projected to be submitted to the NRC by end of year 2004. Justification for this deletion will refer to the control room envelope positive pressure requirement in the CRE Integrity Program.

This new Technical Specifications requirement will provide additional assurance that control room operators will be adequately protected against radiation, hazardous chemical, and smoke events, as applicable to the plant licensing basis. This, in turn, will further ensure the health and safety of the public for postulated design basis events. Based on the above, the proposed change to incorporate the administrative Technical Specifications requirements for the CRE Integrity Program will not adversely affect nuclear safety or safe plant operations.

## **5.0 REGULATORY ANALYSIS**

### **5.1 No Significant Hazards Consideration**

Exelon/AmerGen has evaluated whether or not a significant hazards consideration is involved with the proposed amendments by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

- 1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?**

Response: No.

The proposed changes do not adversely affect accident initiators or precursors nor alter the design assumptions, conditions, or configuration of the facility. The proposed changes do not alter or prevent the ability of structures, systems, and components (SSCs) from performing their intended function to mitigate the consequences of an initiating event within the assumed acceptance limits. This proposed revision to the Technical Specifications adds a new Control Room Envelope Integrity Program for the control room envelope, which is designed to minimize inleakage and to protect the operator following accidents previously analyzed. The control room envelope integrity is not an initiator or precursor to any accident previously evaluated. Implementing programs that verify the integrity of the control room envelope and control room habitability ensure mitigation features are capable of performing the assumed function. Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.



2. **Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?**

Response: No.

The proposed changes do not impact the accident analysis. The proposed changes will not alter the requirements of the control room ventilation system or its function during accident conditions. No new or different accidents result from implementing the proposed Control Room Envelope Integrity Program. The changes do not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed) or a significant change in the methods governing normal plant operation. The changes do not alter assumptions made in the safety analysis and do not impact current plant operating practice. The change will ensure that new hazards are appropriately evaluated for potential impact on control room habitability systems. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. **Does the proposed amendment involve a significant reduction in a margin of safety?**

Response: No.

The proposed changes do not alter the manner in which safety limits, limiting safety system settings or limiting conditions for operation are determined. The safety analysis acceptance criteria are not affected by these changes. The proposed changes will not result in plant operation in a configuration outside the design basis for an unacceptable period of time without compensatory measures. The proposed changes do not affect systems that respond to safely shutdown the plant and to maintain the plant in a safe shutdown condition. Therefore, the proposed changes do not involve a significant reduction in any margin of safety.

Based on the above, Exelon/AmerGen concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

## 5.2 Applicable Regulatory Requirements/Criteria

The proposed changes will ensure that the requirements contained in 10 CFR 50, Appendix A, GDC 19, or the associated proposed Atomic Energy Commission (AEC) General Design Criteria, dated July 1967 for plants with construction permits issued prior to May 21, 1971, are maintained. The Technical Specifications administrative requirement to implement and maintain the Control Room Envelope Integrity Program fulfills the commitments provided in the Exelon/AmerGen response, dated December 9, 2003, to NRC Generic Letter 2003-01, "Control Room Habitability." The new CRE Integrity Program will ensure that control room habitability is maintained. In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the approval of the proposed change will not be inimical to the common defense and security or to the health and safety of the public.

## **6.0 ENVIRONMENTAL CONSIDERATION**

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9).

Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

## **7.0 REFERENCES**

1. Exelon/AmerGen 180-Day Response To NRC Generic Letter 2003-01, "Control Room Habitability," dated December 9, 2003.

## ENCLOSURE 2

### Marked-up Technical Specification Pages for Proposed Changes

#### REVISED TECHNICAL SPECIFICATION PAGES

Braidwood Station, Units 1 and 2  
Page 5.5-25

Byron Station, Units 1 and 2  
Page 5.5-25

Clinton Power Station, Unit 1  
Page 5.0-16b

Dresden Nuclear Power Station, Units 2 and 3  
Page 5.5-12

LaSalle County Station, Units 1 and 2  
Page 5.5-13

Limerick Generating Station, Unit 1  
Page 6-14d

Limerick Generating Station, Unit 2  
Page 6-14d

Oyster Creek Generating Station  
Page 6-12

Peach Bottom Atomic Power Station, Unit 2  
Page 5.0-18

Peach Bottom Atomic Power Station, Unit 3  
Page 5.0-18

Quad Cities Nuclear Power Station, Units 1 and 2  
Page 5.5-12

TMI Unit 1  
Page 6-11c

Braidwood, Units 1 and 2

## 5.5 Programs and Manuals

### 5.5.16 Containment Leakage Rate Testing Program (continued)

b. Air lock testing acceptance criteria are:

1. Overall air lock leakage rate is  $\leq 0.05 L_a$  when tested at  $\geq P_a$ ; and
2. For each door, seal leakage rate is:
  - i.  $< 0.0024 L_a$ , when pressurized to  $\geq 3$  psig, and
  - ii.  $< 0.01 L_a$ , when pressurized to  $\geq 10$  psig.

The provisions of SR 3.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

The provisions of SR 3.0.3 are applicable to the Containment Leakage Rate Testing Program.

### 5.5.17 Battery Monitoring and Maintenance Program

This program provides for restoration and maintenance, based on the recommendations of IEEE Standard 450, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries For Stationary Applications," or of the battery manufacturer of the following:

- a. Actions to restore battery cells with float voltage  $< 2.13$  V, and
- b. Actions to equalize and test battery cells that had been discovered with electrolyte level below the minimum established design limit.

### 5.5.18 Control Room Envelope Integrity Program

INSERT A

Braidwood Station, Units 1 and 2 TS Page 5.5-25 Insert A:

A Control Room Envelope Integrity Program shall be established and implemented to ensure the criteria described in 10 CFR 50, Appendix A, General Design Criterion 19 are maintained. The program will provide controls to maintain control room envelope integrity and shall include:

- a. Establishing acceptable amounts of radioactive and hazardous chemical leakage for the control room envelope;
- b. Maintaining configuration control and managing breaches of the control room envelope to ensure that the values for leakage remain below the established acceptable values;
- c. Testing for control room envelope leakage as specified in the Program;
- d. Testing to verify a positive pressure in all areas of the control room envelope as specified in the Program;
- e. Providing preventive maintenance of doors, wall/roof/floor penetrations, dampers, and floor drains that are part of the control room envelope; and
- f. Assessing control room habitability at the frequencies specified in the Program.

The provisions of SR 3.0.2 are applicable to the Control Room Envelope Integrity Program, unless otherwise specified in the Program.

Byron, Units 1 and 2

## 5.5 Programs and Manuals

### 5.5.16 Containment Leakage Rate Testing Program (continued)

b. Air lock testing acceptance criteria are:

1. Overall air lock leakage rate is  $\leq 0.05 L_a$  when tested at  $\geq P_a$ ; and
2. For each door, seal leakage rate is:
  - i.  $< 0.0024 L_a$ , when pressurized to  $\geq 3$  psig, and
  - ii.  $< 0.01 L_a$ , when pressurized to  $\geq 10$  psig.

The provisions of SR 3.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

The provisions of SR 3.0.3 are applicable to the Containment Leakage Rate Testing Program.

### 5.5.17 Battery Monitoring and Maintenance Program

This program provides for restoration and maintenance, based on the recommendations of IEEE Standard 450, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead - Acid Batteries For Stationary Applications," or of the battery manufacturer of the following:

- A. Actions to restore battery cells with float voltage  $< 2.13$  V, and
- B. Actions to equalize and test battery cells that had been discovered with electrolyte level below the minimum established design limit.

### 5.5.18 Control Room Envelope Integrity Program

INSERT A



Byron Station, Units 1 and 2 TS Page 5.5-25 Insert A:

A Control Room Envelope Integrity Program shall be established and implemented to ensure the criteria described in 10 CFR 50, Appendix A, General Design Criterion 19 are maintained. The program will provide controls to maintain control room envelope integrity and shall include:

- a. Establishing acceptable amounts of radioactive and hazardous chemical leakage for the control room envelope;
- b. Maintaining configuration control and managing breaches of the control room envelope to ensure that the values for leakage remain below the established acceptable values;
- c. Testing for control room envelope leakage as specified in the Program;
- d. Testing to verify a positive pressure in all areas of the control room envelope as specified in the Program;
- e. Providing preventive maintenance of doors, wall/roof/floor penetrations, dampers, and floor drains that are part of the control room envelope; and
- f. Assessing control room habitability at the frequencies specified in the Program.

The provisions of SR 3.0.2 are applicable to the Control Room Envelope Integrity Program, unless otherwise specified in the Program.

Clinton Power Station, Unit 1

5.5 Program and Manuals (continued)

5.5.14 Battery Monitoring and Maintenance Program

This program provides for battery restoration and maintenance, based on the recommendations of IEEE Standard 450-1995, "IEEE Recommended Practice for Maintenance, Testing and Replacement of Vented Lead-Acid Batteries for Stationary Applications," including the following:

- a. Actions to restore battery cells with float voltage < 2.13 V,
- and
- b. Actions to equalize and test battery cells that had been discovered with electrolyte level below the minimum established design limit.

**ADD**  
↓  
5.5.15 Control Room Envelope Integrity Program

A Control Room Envelope Integrity Program shall be established and implemented to ensure the criteria described in 10 CFR 50, Appendix A, General Design Criterion 19 are maintained. The program will provide controls to maintain control room envelope integrity and shall include:

- a. Establishing acceptable amounts of radioactive and hazardous chemical leakage for the control room;
- b. Maintaining configuration control and managing breaches of the control room envelope to ensure that the values for leakage remain below the established acceptable values;
- c. Testing for control room leakage as specified in the Program;
- d. Providing preventive maintenance of doors, wall/roof/floor penetrations, dampers, and floor drains that are part of the control room envelope; and
- e. Assessing control room habitability at the frequencies specified in the Program.

The provisions of SR 3.0.2 are applicable to the Control Room Envelope Integrity Program, unless otherwise specified in the Program.

Dresden Nuclear Power Station, Units 2 and 3

## 5.5 Programs and Manuals

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### 5.5.12 Primary Containment Leakage Rate Testing Program (continued)

2. NEI 94-01 - 1995, Section 9.2.3: The first Unit 3 Type A test performed after the July 14, 1994, Type A test shall be performed no later than July 13, 2009.
- b. The peak calculated primary containment internal pressure for the design basis loss of coolant accident,  $P_s$ , is 43.9 psig.
- c. The maximum allowable primary containment leakage rate,  $L_s$ , at  $P_s$ , is 1.6% of primary containment air weight per day.
- d. Leakage rate acceptance criteria are:
  1. Primary containment overall leakage rate acceptance criterion is  $\leq 1.0 L_s$ . During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are  $\leq 0.60 L_s$  for the combined Type B and Type C tests, and  $\leq 0.75 L_s$  for Type A tests.
  2. Air lock testing acceptance criteria is the overall air lock leakage rate is  $\leq 0.05 L_s$  when tested at  $\geq P_s$ .
- e. The provisions of SR 3.0.3 are applicable to the Primary Containment Leakage Rate Testing Program.

### 5.5.13 Battery Monitoring and Maintenance Program

This Program provides for restoration and maintenance, based on the recommendations of IEEE Standard 450-1995, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries for Stationary Applications," including the following:

- a. Actions to restore battery cells with float voltage  $< 2.13$  V, and
- b. Actions to equalize and test battery cells that had been discovered with electrolyte level below the minimum established design limit.

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### 5.5.14 Control Room Envelope Integrity Program

INSERT A

A Control Room Envelope Integrity Program shall be established and implemented to ensure the criteria described in 10 CFR 50, Appendix A, General Design Criterion 19 are maintained. The program will provide controls to maintain control room envelope integrity and shall include:

- a. Establishing acceptable amounts of radioactive and hazardous chemical inleakage for the control room;
- b. Maintaining configuration control and managing breaches of the control room envelope to ensure that the values for inleakage remain below the established acceptable values;
- c. Testing for control room inleakage as specified in the Program;
- d. Providing preventive maintenance of doors, wall/roof/floor penetrations, dampers, and floor drains that are part of the control room envelope; and
- e. Assessing control room habitability at the frequencies specified in the Program.

The provisions of SR 3.0.2 are applicable to the Control Room Envelope Integrity Program, unless otherwise specified in the Program.

LaSalle County Station, Units 1 and 2

## 5.5 Programs and Manuals

### 5.5.13 Primary Containment Leakage Rate Testing Program (continued)

2. NEI 94-01 - 1995, Section 9.2.3: The first Unit 2 Type A test performed after December 8, 1993 Type A test shall be performed no later than December 7, 2008.
3. The potential valve atmospheric leakage paths that are not exposed to reverse direction test pressure shall be tested during the regularly scheduled Type A test. The program shall contain the list of the potential valve atmospheric leakage paths, leakage rate measurement method, and acceptance criteria. This exception shall be applicable only to valves that are not isolable from the primary containment free air space.
- b. The peak calculated primary containment internal pressure for the design basis loss of coolant accident,  $P_s$ , is 39.9 psig.
- c. The maximum allowable primary containment leakage rate,  $L_s$ , at  $P_s$ , is 0.635% of primary containment air weight per day.
- d. Leakage rate acceptance criteria are:
  1. Primary containment overall leakage rate acceptance criterion is  $\leq 1.0 L_s$ . During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are  $\leq 0.60 L_s$  for the combined Type B and Type C tests, and  $\leq 0.75 L_s$  for Type A tests.
  2. Air lock testing acceptance criteria are:
    - a) Overall air lock leakage rate is  $\leq 0.05 L_s$  when tested at  $\geq P_s$ .
    - b) For each door, the seal leakage rate is  $\leq 5$  scf per hour when the gap between the door seals is pressurized to  $\geq 10$  psig.
- e. The provisions of SR 3.0.3 are applicable to the Primary Containment Leakage Rate Testing Program.

### 5.5.14 Control Room Envelope Integrity Program

INSERT A



A Control Room Envelope Integrity Program shall be established and implemented to ensure the criteria described in 10 CFR 50, Appendix A, General Design Criterion 19 are maintained. The program will provide controls to maintain control room envelope integrity and shall include:

- a. Establishing acceptable amounts of radioactive and hazardous chemical leakage for the control room;
- b. Maintaining configuration control and managing breaches of the control room envelope to ensure that the values for leakage remain below the established acceptable values;
- c. Testing for control room leakage as specified in the Program;
- d. Providing preventive maintenance of doors, wall/roof/floor penetrations, dampers, and floor drains that are part of the control room envelope; and
- e. Assessing control room habitability at the frequencies specified in the Program.

The provisions of SR 3.0.2 are applicable to the Control Room Envelope Integrity Program, unless otherwise specified in the Program.

Limerick Generating Station, Unit 1

ADMINISTRATIVE CONTROLS  
PROCEDURES AND PROGRAMS (Continued)

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i. Battery Monitoring and Maintenance Program

This Program provides for restoration and maintenance, based on the recommendations of IEEE Standard 450, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries For Stationary Applications," of the following:

- a. Actions to restore battery cells with float voltage < 2.13 volts, and
- b. Actions to equalize and test battery cells that have been discovered with electrolyte level below the minimum established design limit.

INSERT A

Limerick Station, Unit 1 TS Insert A:

j. Control Room Envelope Integrity Program

A Control Room Envelope Integrity Program shall be established and implemented to ensure the criteria described in 10 CFR 50, Appendix A, General Design Criterion 19 are maintained. The program will provide controls to maintain control room envelope integrity and shall include:

- a. Establishing acceptable amounts of radioactive and hazardous chemical leakage for the control room;
- b. Maintaining configuration control and managing breaches of the control room envelope to ensure that the values for leakage remain below the established acceptable values;
- c. Testing for control room leakage as specified in the Program;
- d. Providing preventive maintenance of doors, wall/roof/floor penetrations, dampers, and floor drains that are part of the control room envelope; and
- e. Assessing control room habitability at the frequencies specified in the Program.

The provisions of 4.0.2 are applicable to the Control Room Envelope Integrity Program, unless otherwise specified in the Program.

Limerick Generating Station, Unit 2

## ADMINISTRATIVE CONTROLS

### PROCEDURES AND PROGRAMS (Continued)

#### i. Battery Monitoring and Maintenance Program

This Program provides for restoration and maintenance, based on the recommendations of IEEE Standard 450, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries For Stationary Applications," of the following:

- a. Actions to restore battery cells with float voltage  $< 2.13$  volts, and
- b. Actions to equalize and test battery cells that have been discovered with electrolyte level below the minimum established design limit.

INSERT A

Limerick Station, Unit 2 TS Insert A:

j. Control Room Envelope Integrity Program

A Control Room Envelope Integrity Program shall be established and implemented to ensure the criteria described in 10 CFR 50, Appendix A, General Design Criterion 19 are maintained. The program will provide controls to maintain control room envelope integrity and shall include:

- a. Establishing acceptable amounts of radioactive and hazardous chemical leakage for the control room;
- b. Maintaining configuration control and managing breaches of the control room envelope to ensure that the values for leakage remain below the established acceptable values;
- c. Testing for control room leakage as specified in the Program;
- d. Providing preventive maintenance of doors, wall/roof/floor penetrations, dampers, and floor drains that are part of the control room envelope; and
- e. Assessing control room habitability at the frequencies specified in the Program.

The provisions of 4.0.2 are applicable to the Control Room Envelope Integrity Program, unless otherwise specified in the Program.

Oyster Creek Generating Station



9. Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from 1-131, 1-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluent released beyond the SITE BOUNDARY conforming to Appendix I of 10 CFR 50,
10. Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from Uranium fuel cycle sources conforming to 40 CFR Part 190.

b. Radiological Environmental Monitoring Program

A program shall be provided to monitor the radiation and radionuclides in the environs of the plant. The program shall provide (1) representative measurements of radioactivity in the highest potential exposure pathways, and (2) verification of the accuracy of the effluent monitoring program and modeling of environmental exposure pathways. The program shall (1) be contained in the ODCM, (2) conform to the guidance of Appendix I to 10 CFR Part 50, and (3) include the following:

1. Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM,
2. A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of this census, and
3. Participation in an Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

INSERT  
A

C. Control Room Envelope Integrity Program

6.8.5 Station Battery Monitoring and Maintenance Program

This Program provides for restoration and maintenance, based on the recommendations of IEEE Standard 450, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries For Stationary Applications," of the following:

- a. Actions to restore station battery cells with float voltage < 2.13 volts, and
- b. Actions to equalize and test station battery cells that have been discovered with electrolyte level below the top of the plates.

Oyster Creek Station TS Page 6-12 Insert A:

A Control Room Envelope Integrity Program shall be established and implemented to ensure the criteria described in 10 CFR 50, Appendix A, General Design Criterion 19 are maintained. The program will provide controls to maintain control room envelope integrity and shall include:

1. Establishing acceptable amounts of radioactive and hazardous chemical leakage for the control room;
2. Maintaining configuration control and managing breaches of the control room envelope to ensure that the values for leakage remain below the established acceptable values;
3. Testing for control room leakage as specified in the Program;
4. Providing preventive maintenance of doors, wall/roof/floor penetrations, dampers, and floor drains that are part of the control room envelope; and
5. Assessing control room habitability at the frequencies specified in the Program.

The provisions of TS 1.24 are applicable to the Control Room Envelope Integrity Program, unless otherwise specified in the Program.

Peach Bottom Atomic Power Station, Unit 2

## 5.5 Programs and Manuals

### 5.5.12 Primary Containment Leakage Rate Testing Program (continued)

b. Air lock testing acceptance criteria are:

- 1) Overall air lock leakage rate is  $\leq 9000$  scc/min when tested at  $\geq P_1$ .

c. MSIV leakage acceptance criteria are as specified in SR 3.6.1.3.14.

The provisions of SR 3.0.2 do not apply to the test frequencies specified in the Primary Containment Leakage Rate Testing Program.

The provisions of SR 3.0.3 are applicable to the Primary Containment Leakage Rate Testing Program.

ADD

### 5.5.13 Control Room Envelope Integrity Program

A Control Room Envelope Integrity Program shall be established and implemented to ensure the criteria described in 10 CFR 50, Appendix A, General Design Criterion 19 are maintained. The program will provide controls to maintain control room envelope integrity and shall include:

- a. Establishing acceptable amounts of radioactive and hazardous chemical inleakage for the control room;
- b. Maintaining configuration control and managing breaches of the control room envelope to ensure that the values for inleakage remain below the established acceptable values;
- c. Testing for control room inleakage as specified in the Program;
- d. Providing preventive maintenance of doors, wall/roof/floor penetrations, dampers, and floor drains that are part of the control room envelope; and
- e. Assessing control room habitability at the frequencies specified in the Program.

The provisions of SR 3.0.2 are applicable to the Control Room Envelope Integrity Program, unless otherwise specified in the Program.

Peach Bottom Atomic Power Station, Unit 3

## 5.5 Programs and Manuals

### 5.5.12 Primary Containment Leakage Rate Testing Program (continued)

b. Air lock testing acceptance criteria are:

- 1) Overall air lock leakage rate is  $\leq 9000$  scc/min when tested at  $\geq P_1$ .

c. MSIV leakage acceptance criteria are as specified in SR 3.6.1.3.14.

The provisions of SR 3.0.2 do not apply to the test frequencies specified in the Primary Containment Leakage Rate Testing Program.

The provisions of SR 3.0.3 are applicable to the Primary Containment Leakage Rate Testing Program.

ADD

### 5.5.13 Control Room Envelope Integrity Program

A Control Room Envelope Integrity Program shall be established and implemented to ensure the criteria described in 10 CFR 50, Appendix A, General Design Criterion 19 are maintained. The program will provide controls to maintain control room envelope integrity and shall include:

- a. Establishing acceptable amounts of radioactive and hazardous chemical leakage for the control room;
- b. Maintaining configuration control and managing breaches of the control room envelope to ensure that the values for leakage remain below the established acceptable values;
- c. Testing for control room leakage as specified in the Program;
- d. Providing preventive maintenance of doors, wall/roof/floor penetrations, dampers, and floor drains that are part of the control room envelope; and
- e. Assessing control room habitability at the frequencies specified in the Program.

The provisions of SR 3.0.2 are applicable to the Control Room Envelope Integrity Program, unless otherwise specified in the Program.

Quad Cities Nuclear Power Station, Units 1 and 2

## 5.5 Programs and Manuals

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### 5.5.12 Primary Containment Leakage Rate Testing Program (continued)

2. NEI 94-01 - 1995, Section 9.2.3: The first Unit 2 Type A test performed after the May 17, 1993, Type A test shall be performed no later than May 16, 2008.
  - b. The peak calculated primary containment internal pressure for the design basis loss of coolant accident,  $P_a$ , is 43.9 psig.
  - c. The maximum allowable primary containment leakage rate,  $L_a$ , at  $P_a$ , is 1% of primary containment air weight per day.
  - d. Leakage rate acceptance criteria are:
    1. Primary containment overall leakage rate acceptance criterion is  $\leq 1.0 L_a$ . During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are  $\leq 0.60 L_a$  for the combined Type B and Type C tests, and  $\leq 0.75 L_a$  for Type A tests.
    2. Air lock testing acceptance criteria is the overall air lock leakage rate is  $\leq 0.05 L_a$  when tested at  $\geq P_a$ .
  - e. The provisions of SR 3.0.3 are applicable to the Primary Containment Leakage Rate Testing Program.
- 

### 5.5.13 Control Room Envelope Integrity Program

INSERT A



Quad Cities Station, Units 1 and 2 TS Page 5.5-12 Insert A:

A Control Room Envelope Integrity Program shall be established and implemented to ensure the criteria described in 10 CFR 50, Appendix A, General Design Criterion 19 are maintained. The program will provide controls to maintain control room envelope integrity and shall include:

- a. Establishing acceptable amounts of radioactive and hazardous chemical leakage for the control room;
- b. Maintaining configuration control and managing breaches of the control room envelope to ensure that the values for leakage remain below the established acceptable values;
- c. Testing for control room leakage as specified in the Program;
- d. Providing preventive maintenance of doors, wall/roof/floor penetrations, dampers, and floor drains that are part of the control room envelope; and
- e. Assessing control room habitability at the frequencies specified in the Program.

The provisions of SR 3.0.2 are applicable to the Control Room Envelope Integrity Program, unless otherwise specified in the Program.

TMI Unit 1

6.8.5 Reactor Building Leakage Rate Testing Program

The Reactor Building Leakage Rate Testing Program shall be established, implemented, and maintained as follows:

A program shall be established to implement the leakage rate testing of the Reactor Building as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995, as modified by the following exception to NEI 94-01, Rev. 0, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J":

- a. Section 9.2.3: The first Type A test performed after the September 1993 Type A test shall be performed no later than September 2008.

The peak calculated Reactor Building internal pressure for the design basis loss of coolant accident,  $P_{ac}$ , is 50.6 psig.

The maximum allowable Reactor Building leakage rate,  $L_a$ , shall be 0.1 weight percent of containment atmosphere per 24 hours at  $P_{ac}$ .

Reactor Building leakage rate acceptance criteria is  $\leq 1.0 L_a$ . During the first plant startup following each test performed in accordance with this program, the leakage rate acceptance criteria are  $\leq 0.60 L_a$  for the Type B and Type C tests and  $\leq 0.75 L_a$  for the Type A tests.

ADD  
6.8.6 Control Room Envelope Integrity Program

A Control Room Envelope Integrity Program shall be established and implemented to ensure the criteria described in 10 CFR 50, Appendix A, General Design Criterion 19 are maintained. The program will provide controls to maintain control room envelope integrity and shall include:

- a. Establishing acceptable amounts of radioactive and hazardous chemical inleakage for the control room;
- b. Maintaining configuration control and managing breaches of the control room envelope to ensure that the values for inleakage remain below the established acceptable values;
- c. Testing for control room inleakage as specified in the Program;
- d. Providing preventive maintenance of doors, wall/roof/floor penetrations, dampers, and floor drains that are part of the control room envelope; and
- e. Assessing control room habitability at the frequencies specified in the Program.

The provisions of 1.25 are applicable to the Control Room Envelope Integrity Program, unless otherwise specified in the Program.