

# PUBLIC SUBMISSION

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Draft Regulatory Guide; Issuance, Availability

**Comment On:** NRC-2009-0351-0001  
Draft Regulatory Guide; Issuance, Availability

**Document:** NRC-2009-0351-DRAFT-0002  
Comment on FR Doc # E9-19295

8/12/09  
74 FR 40629

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## Submitter Information

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## General Comment

October 9, 2009

Chief, Rulemaking and Directives Branch (RDB)  
Division of Administrative Services  
Office of Administration  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Subject: Industry Comments on Draft Regulatory Guide, DG-1236, "Initial Startup Test Program to Demonstrate Remote Shutdown Capability for Water Cooled Nuclear Power Plants," Docket ID NRC-2009-0351

Project Number: 689

The Nuclear Energy Institute (NEI) is pleased to provide the enclosed industry comments on the subject draft Regulatory Guide (DG-1236).

Of the comments provided in the enclosure, we would like to highlight Comment 4 to your attention. Revision 1 of Regulatory Guide 1.68.2 contains a footnote explaining that the term "hot shutdown" in GDC 19 corresponds to "hot standby" as defined in the Standard Technical Specifications (Mode 3 conditions). The term "hot standby" is then used throughout Rev. 1 of the regulatory guide. DG-1236 does not include that footnote and, instead, repeatedly uses the term "hot shutdown." Use of the term "hot shutdown" without further explanation would create confusion since the Technical Specifications use "hot shutdown" for either Mode 3 or Mode 4.

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RULES AND DIRECTIVES  
BRANCH  
10/13/09

SUNSI Review Complete

Template = ADM-013

FRIDS = ADM-03

Odd = J. Ortega-Luciano (JX04)

To avoid confusion, the regulatory guide should specify that the first two objectives (shutdown and maintain the plant in hot shutdown) should be accomplished by demonstrating remote shutdown to Mode 3 conditions (reactor shutdown, but cooldown not required). Then, to accomplish the third objective (cooldown), plants should show that they have the capability to achieve cold shutdown conditions (Mode 5 for most plants) from outside the control room. This clarification could be achieved by adding the following footnote:

"The term 'hot shutdown' used in GDC 19 and throughout this Regulatory Guide corresponds to Mode 3 conditions as described in the Standard Technical Specifications."

If you have any questions about the industry comments, please contact me or Kimberly Keithline (202-739-8121; ka

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## Attachments

**NRC-2009-0351-DRAFT-0002.1:** Comment on FR Doc # E9-19295

**NRC-2009-0351-DRAFT-0002.2:** Comment on FR Doc # E9-19295



Russell J. Bell  
DIRECTOR  
NEW PLANT LICENSING  
NUCLEAR GENERATION DIVISION

October 9, 2009

Chief, Rulemaking and Directives Branch (RDB)  
Division of Administrative Services  
Office of Administration  
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To avoid confusion, the regulatory guide should specify that the first two objectives (shutdown and maintain the plant in hot shutdown) should be accomplished by demonstrating remote shutdown to Mode 3 conditions (reactor shutdown, but cooldown not required). Then, to accomplish the third

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<sup>1</sup> The Nuclear Energy Institute (NEI) is the organization responsible for establishing unified industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel fabrication facilities, nuclear materials licensees, and other organizations and entities involved in the nuclear energy industry.

Chief, Rulemaking and Directives Branch (RDB)

October 9, 2009

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objective (cooldown), plants should show that they have the capability to achieve cold shutdown conditions (Mode 5 for most plants) from outside the control room. This clarification could be achieved by adding the following footnote:

"The term 'hot shutdown' used in GDC 19 and throughout this Regulatory Guide corresponds to Mode 3 conditions as described in the Standard Technical Specifications."

If you have any questions about the industry comments, please contact me or Kimberly Keithline (202-739-8121; kak@nei.org).

Sincerely,



Russell J. Bell

Attachment

c: Mr. William S. Burton, U.S. Nuclear Regulatory Commission  
NRC Document Control Desk

**Industry Comments on DG-1236, INITIAL STARTUP TEST PROGRAM TO DEMONSTRATE REMOTE SHUTDOWN CAPABILITY FOR WATER-COOLED NUCLEAR POWER PLANTS (10/9/09)**

| <b>DG Section/<br/>Paragraph/Sentence</b>       | <b>Comment</b>  | <b>Proposed Resolution</b>   |
|---|---|--|
| 1. Section A, third paragraph, first sentence   | Criterion 1, "Quality Standards and Records," is called out. This is really General Design Criterion 1.   | For clarity, reword as: "General Design Criterion (GDC) 1, "Quality Standards and Records," of Appendix A to 10 CFR Part 50..."  |
| 2. Section A, fourth paragraph, first sentence  | Criterion XI, "Test Control," is called out. This is a Quality Assurance Criterion from 10CFR50, Appendix B.  | For clarity, reword as: "Quality Assurance (QA) Criterion XI, "Test Control," of Appendix B..."  |
| 3. Section A, fourth paragraph, second sentence | This sentence starts with "General Design Criterion (GDC) 19, "Control Room,"..." This should be reworded to be consistent with changes above.  | Reword as: "GDC 19, "Control Room," of Appendix A to 10 CFR Part 50..."  |
| 4. Section A, fourth paragraph, second sentence | Revision 1 of Regulatory Guide 1.68.2 contains a footnote explaining that the term "hot shutdown" in GDC 19 corresponds to "hot standby" as defined in the Standard Technical Specifications (Mode 3 conditions). The term "hot standby" is then used throughout Rev. 1 of the regulatory guide. DG-1236 does not include that footnote and, instead, repeatedly uses the term "hot shutdown." Use of the term "hot shutdown" without further explanation would create confusion since the Technical Specifications use "hot shutdown" for either Mode 3 or Mode 4. To avoid confusion, the regulatory guide should specify that the first two objectives (shut down and maintain the plant in hot shutdown) should be accomplished by demonstrating remote shutdown to Mode 3 conditions (reactor shutdown, but cooldown not required). Then, to accomplish the third objective (cool down), plants should show that | Use the RG 1.68.2, Rev. 1 footnote 1, modified as follows:<br><br>"1The term "hot shutdown" used in GDC 19 and throughout this Regulatory Guide corresponds to Mode 3 conditions as described in the Standard Technical Specifications." |

**Industry Comments on DG-1236, INITIAL STARTUP TEST PROGRAM TO DEMONSTRATE REMOTE SHUTDOWN CAPABILITY FOR WATER-COOLED NUCLEAR POWER PLANTS (10/9/09)**

| <b>DG Section/<br/>Paragraph/Sentence</b>                   | <b>Comment</b>  | <b>Proposed Resolution</b>  |
|---|---|---|
|   | they have the capability to achieve cold shutdown conditions (Mode 5 for most plants) from outside the control room.  |   |
| 5. Section C, first sentence                                | The sentence starts with: "The regulations in GDC 19 and Criterion XI require..." This should be reworded to be consistent with changes above.  | Reword as: "GDC 19 and QA Criterion XI require..."  |
| 6. Section C.4, test demonstration item d., second sentence | The sentence reads: "This cooldown test should show that cold shutdown can be achieved from outside the control room." This wording is not consistent with GDC 19 or Reg. Guide 1.68, Rev. 3, both which address the potential capability for subsequent cold shutdown following a shutdown outside the control room to hot shutdown.   | Reword to read: "This cooldown test should show that the potential exists to achieve cold shutdown from outside the control room."  |
| 7. Section C.4, demonstration item a.                       | Cooldowns from Hot Shutdown to the point where the core decay heat removal system (Residual Heat Removal in BWRs) from the remote shutdown system is accomplished using Safety Relief Valves. The vendor for these valves does not recommend operation of these valves at low pressures due to the potential for damage to the seating surface, which would require maintenance prior to the next startup. This recommendation is incorporated in the testing requirements for these valves in the Plant's Technical Specifications and should also be incorporated in this guidance. | Rewrite as follows:<br><br>"4. The test should demonstrate that:<br><br>a. The reactor coolant temperature and pressure can be lowered sufficiently to permit the operation of the core decay heat removal system that is to be ultimately used to place the reactor in a refueling shutdown mode. This demonstration should be performed with adequate steam pressure available to perform this test and avoid damaging equipment (e.g., Safety Relief Valves)." |

**Industry Comments on DG-1236, INITIAL STARTUP TEST PROGRAM TO DEMONSTRATE REMOTE SHUTDOWN CAPABILITY FOR WATER-COOLED NUCLEAR POWER PLANTS (10/9/09)**

| <b>DG Section/<br/>Paragraph/Sentence</b>        | <b>Comment</b>  | <b>Proposed Resolution</b>   |
|--|---|--|
| 8. Section C.4, last sentence                    | <p>This sentence reads: "Personnel in excess of the minimum requirements may be present, provided the additional personnel perform only nonsafety-related activities that would not be required during an actual emergency shutdown."</p> <p>This sounds like additional, qualified operators could not be used during a real emergency even if they were present.</p>                  | <p>Revise the last sentence as follows:</p> <p>"Personnel in excess of those identified in the remote shutdown procedure may be present during the demonstration, provided they do not perform activities needed to demonstrate the remote shutdown capability."</p> |
| 9. Section C.5, first paragraph, second sentence | <p>This sentence refers to Regulatory Guide 1.16, "Reporting of Operating Information," Appendix A Technical Specifications. That RG was withdrawn on August 11, 2009, per 74 FR 40244. As an additional comment, the reporting guidance is not specific to the tests performed in DG-1236, but rather applies to all tests performed in the Startup Test Program (Post Fuel Load.)</p> | <p>Replace with appropriate reference.</p>   |