

February 4, 2008
5928-08-20023

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

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

Subject: Request for Exemption from 10 CFR 50, Appendix R,
Section III.G, "Fire Protection of Safe Shutdown Capability"

References:

1. Letter from Ronald W. Hernan, Senior Project Manager, Project Directorate I-4, Division of Reactor Projects I/II, USNRC, to Henry D. Hukill, Vice President and Director TMI-1, GPU Nuclear Corporation, "Resolution of Various TMI-1 Appendix R Issues (TAC Nos. 64951 and 68331)," dated September 7, 1988.
2. Letter 5211-87-2195 from H. D. Hukill, Vice President and Director TMI-1, GPU Nuclear Corporation, to USNRC, "Submittal of Fire Hazards Analysis Report, Revision 9," dated October 27, 1987.

In accordance with 10 CFR 50.12, "Specific exemptions," AmerGen Energy Company, LLC (AmerGen) hereby requests an exemption from the provisions of 10 CFR 50, Appendix R, Section III.G, "Fire Protection of Safe Shutdown Capability," for the use of operator manual actions for Three Mile Island Nuclear Station, Unit 1 (TMI-1), in lieu of the requirements specified in Section III.G.2. This exemption is being requested in accordance with the requirements of 10 CFR 50.12(a)(2)(ii) since the application of the regulation in this particular circumstance is not necessary to achieve the underlying purpose of the rule.

The manual actions addressed in this exemption request are those that were previously included in the TMI-1 Fire Hazards Analysis Report (FHAR) submitted to the NRC, and were subsequently found acceptable in a Safety Evaluation Report (SER). Reference 1 is a SER that accepts the TMI-1 FHAR Revision 9, which includes operator manual actions. The TMI-1 FHAR is considered part of the Updated Final Safety Analysis Report (UFSAR) and is subject to the update requirements in 10 CFR 50.71(e). Reference 2 contains the TMI-1 FHAR Revision 9 submittal to the NRC referenced in the SER.

In accordance with Regulatory Issue Summary (RIS) 2006-10, "Regulatory Expectations with Appendix R Paragraph III.G.2 Operator Manual Actions," an approved exemption is required for all operator manual actions, even those that were accepted in a previously issued NRC SER. This exemption request is limited to those manual actions that were previously accepted in an NRC SER for TMI-1. Attachment 2 contains a list of the specific manual actions for which an exemption is being requested.

TMI-1 credits other manual actions for post fire safe shutdown. Most of these actions were included in specific exemption requests that were approved by the NRC in SERs. In accordance with RIS 2006-10, manual actions included in an approved exemption require no additional action by the licensee or the NRC. TMI-1 has other manual actions that were not previously addressed by the NRC in an SER which are part of the post-fire safe shutdown process to achieve hot shutdown. The use of these manual actions will be included in a separate exemption request. TMI-1 also has some manual actions needed for Alternative Shutdown (III.G.3) and actions needed only to reach cold shutdown. RIS 2006-10 does not require NRC approval for these manual actions.

This exemption request will not result in undue risk to the public health and safety because AmerGen has determined that the subject manual actions are feasible and the NRC has already found these manual actions to be acceptable for use in achieving post-fire safe shutdown. Therefore, the special circumstances for issuance of the exemption are satisfied in accordance with the requirements of 10 CFR 50.12(a)(2)(ii), since application of the rule is not necessary to achieve the underlying purpose of the rule. In addition, the requested exemption is authorized by law and is consistent with the common defense and security. Therefore, the requirements of 10 CFR 50.12(a)(1) are satisfied.

Information supporting the exemption request is contained in Attachments 1 and 2 to this letter. AmerGen requests approval of this exemption request by February 4, 2009.

If you have any questions or require additional information, please contact Glenn Stewart at 610-765-5529.

Respectfully,

gbc 

Pamela B. Cowan
Director, Licensing and Regulatory Affairs
AmerGen Energy Company, LLC

- Attachments: 1. Operator Manual Actions Exemption Request
2. List of Operator Manual Actions

cc:	Regional Administrator - NRC Region I	w/attachments
	NRC Senior Resident Inspector - TMI-1	"
	NRC Project Manager, NRR - TMI-1	"
	Director, Bureau of Radiation Protection,	"
	PA Department of Environmental Protection	"
	Chairman, Board of County Commissioners,	"
	Dauphin County, PA	"
	Chairman, Board of Supervisors,	"
	Londonderry Township, PA	"
	R. R. Janati, Commonwealth of Pennsylvania	"

ATTACHMENT 1 OPERATOR MANUAL ACTIONS EXEMPTION REQUEST

I. SPECIFIC EXEMPTION REQUEST

In accordance with 10 CFR 50.12, "Specific exemptions," AmerGen Energy Company, LLC (AmerGen) hereby requests an exemption from the requirements of 10 CFR 50, Appendix R (Reference 1), Section III.G, "Fire Protection for Safe Shutdown Capability," for Three Mile Island Nuclear Station, Unit 1 (TMI-1), to the extent that operator manual actions are necessary to achieve and maintain hot shutdown for fire areas/zones in which both trains of cables/equipment could be affected by the same fire.

Background:

The criteria for granting specific exemptions from 10 CFR 50 regulations are specified in 10 CFR 50.12. In accordance with 10 CFR 50.12(a)(1), the NRC is authorized to grant an exemption upon determining that the exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security.

Regulatory Issue Summary (RIS) 2006-10 (Reference 2) documents the NRC position relative to the use of operator manual actions as part of a compliance strategy to meet the requirements of 10 CFR 50, Appendix R, Section III.G.2. The NRC requires that plants which credit manual actions for Section III.G.2 compliance obtain specific NRC approval for the manual action via the exemption process in accordance with the requirements of 10 CFR 50.12. RIS 2006-10 addresses operator manual actions that were previously approved outside the exemption process as stated below:

"For pre-1979 licensees, a staff decision in a safety evaluation report (SER) that approves the use of operator manual actions, in lieu of one of the means specified in paragraph III.G.2, does not eliminate the need for an exemption. Pre-1979 licensees who have SERs, but not a corresponding exemption, which approve manual actions should request an exemption under 10 CFR Part 50.12, citing the special circumstances of section 50.12(a)(2)(ii), citing the SER as the safety basis, and confirming that the safety basis established in the SER remains valid. The staff expects to grant the exemption on these bases without further review."

10 CFR 50.12(a)(2)(ii) states, "Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule."

II. BASIS FOR EXEMPTION REQUEST

This exemption request is limited to those operator manual actions currently credited for 10 CFR 50, Appendix R, Section III.G.2 compliance that were previously found acceptable for TMI-1 by the NRC in a Safety Evaluation Report (SER). The basis for this exemption request is the special circumstances cited in 10 CFR 50.12(a)(2)(ii) that, since the manual actions which are the subject of this exemption request have already been found acceptable by the NRC in a prior

SER, application of the rule in this circumstance is not necessary to achieve the underlying purpose of the rule. References to the documentation that supports the inclusion of these manual actions as previously accepted are provided. The operator manual actions that are the subject of this exemption request are unchanged from their original acceptance; therefore, the original safety basis remains valid.

Demonstration that Manual Actions are Previously Approved

In a letter dated September 7, 1988 (Reference 3), the NRC transmitted a SER stating that Revision 9 to the TMI-1 Fire Hazards Analysis Report (FHAR), which contains the manual actions listed in Attachment 2 of this letter, is acceptable to the staff. Section 2.0 of the SER states that GPU Nuclear submitted Revision 9 of the FHAR via a letter dated October 27, 1987 (Reference 4). The following paragraph from Section 2.1 of this SER shows that the NRC found Revision 9 of the FHAR acceptable:

“The FHAR revision has been reviewed by Science Applications International Corporation (SAIC), under contract to the NRC, and has been found to be in compliance with NRC guidelines. The details of the review are discussed in Enclosure 2, which is the Technical Evaluation Report (TER) prepared by SAIC. The staff concurs with the TER findings and concludes that the changes to the fire protection program identified by the licensee in Revision 9 are acceptable.”

Enclosure 2 of the September 7, 1988 SER is the TER provided by SAIC, which discusses the review of FHAR, Revision 9. The last paragraph of Enclosure 2 discusses FHAR, Attachment 3, which contains the manual actions listed in Attachment 2 of this exemption request. SAIC states that FHAR, Revision 9, is acceptable, with the exception of an additional review that is required for the effect of these changes on previous safe shutdown methodology and current procedures. In the context of SAIC's TER, the only remaining items to review were limited to III.G.3 fire areas and other issues not related to this exemption request.

Each manual action in Attachment 2 of this exemption request is contained in the tables of Attachment 3 to Revision 9 of the TMI-1 FHAR and, based on the above discussion, has been previously accepted by the NRC.

Each of the manual actions at TMI-1 has been subject to a manual action feasibility review during the Abnormal or Emergency Operating Procedure validation process performed in 2005 and 2006. This review determined that the manual actions are feasible and can be reliably performed. Also, Triennial Fire Protection Inspections performed in 2002 and 2005 (References 5 and 6), using the criteria provided in NRC Inspection Procedure 71111.05T, (Reference 7) reviewed the feasibility of a number of the manual actions that had been previously approved and found that the actions could be implemented in accordance with plant procedures in the time necessary to support the safe shutdown method for each fire area inspected. The results of these reviews by both AmerGen and the NRC confirm that the safety basis of the original SER remains valid.

There is no law that precludes the activities covered by this exemption request, and the requested exemption has no impact on the common defense and security. Therefore, based on the above discussion, the criteria of 10 CFR 50.12(a)(1) are satisfied in that the requested

exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security.

III. ENVIRONMENT ASSESSMENT

The proposed exemption will not significantly increase the probability or consequences of accidents, no changes are being made in the types or quantities of any radiological effluents that may be released offsite, and there is no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed exemption. In addition, the proposed exemption does not affect non-radiological plant effluents and has no other environmental impact. Therefore, there are no significant non-radiological impacts associated with the proposed exemption. As a result, in accordance with the requirements of 10 CFR 51.32, the proposed exemption will not have a significant effect on the quality of the human environment.

IV. CONCLUSION

This exemption request provides a formal vehicle for NRC approval of operator manual actions associated with Appendix R post-fire safe shutdown. These operator manual actions have been previously accepted by the NRC in prior correspondence. The results of reviews by both AmerGen and the NRC confirm that the operator manual actions are feasible and that the safety basis of the original SER remains valid.

The requested exemption will not result in undue risk to the public health and safety because AmerGen has determined that the subject manual actions are feasible and the NRC has already found these manual actions to be acceptable for use in achieving post-fire safe shutdown. Therefore, the special circumstances for issuance of the exemption are satisfied in accordance with the requirements of 10 CFR 50.12(a)(2)(ii), since application of the rule is not necessary to achieve the underlying purpose of the rule. In addition, the requested exemption is authorized by law, and is consistent with the common defense and security.

V. REFERENCES

1. 10 CFR 50, Appendix R, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979."
2. Regulatory Issue Summary (RIS) 2006-10, "Regulatory Expectations with Appendix R Paragraph III.G.2 Operator Manual Actions," dated June 30, 2006.
3. Letter from Ronald W. Hernan, Senior Project Manager, Project Directorate I-4, Division of Reactor Projects I/II, USNRC, to Henry D. Hukill, Vice President and Director TMI-1, GPU Nuclear Corporation, "Resolution of Various TMI-1 Appendix R Issues (TAC Nos. 64951 and 68331)," dated September 7, 1988.
4. Letter 5211-87-2195 from H. D. Hukill, Vice President and Director TMI-1, GPU Nuclear Corporation, to USNRC, "Submittal of Fire Hazards Analysis Report, Revision 9," dated October 27, 1987.

5. Letter from James C. Linville, Chief, Electrical Branch, Division of Reactor Safety, USNRC, to John Skolds, Chairman and CEO, AmerGen Energy Company, LLC, "Three Mile Island Station, Unit 1 - Triennial Fire Protection Inspection Report 50-289/02-011," dated November 13, 2002.
6. Letter from John F. Rogge, Chief, Engineering Branch 3, Division of Reactor Safety, USNRC, to Christopher M. Crane, President and CEO, AmerGen Energy Company, LLC, "Three Mile Island Station, Unit 1 - NRC Triennial Fire Protection Inspection Report 05000289/2005012," dated January 13, 2006.
7. NRC Inspection Procedure IP 71111.05T, "Fire Protection [Triennial]," dated April 21, 2006.

**ATTACHMENT 2
 LIST OF OPERATOR MANUAL ACTIONS**

Equipment	Manual Action Required in FHAR	Manual Action Location (Fire Area/Zone)	Fire Areas/Zones that credit this manual action (Fire Area/Zone)	Applicable NRC SER (Note 1)	FHAR Rev. 9 Section
RC Pumps RC-P-1A, RC-P-1B, RC-P-1C, RC-P-1D	TRIP all RC pumps within 10 minutes of loss of all seal cooling to prevent seal failure.	TB-FA-1	CB-FA-1	Reference 3, Section 2.1	Attachment 3-3Q, Page 1
Pressurizer Htr. Groups 8 & 9	Transfer at least one group to emergency EDG-backed bus to establish normal RCS pressure control.	TB-FA-1 (both groups) AND CB-FA-2a & CB-FA-3a (for Group 8) OR CB-FA-2b & CB-FA-3b (for Group 9)	All Fire Zones (If a Loss of Offsite Power occurs) EXCEPT CB-FA-1, CB-FA-2b, CB-FA-2c, FH-FZ-5, RB-FZ-1d, RB-FZ-2, TB-FA-1	Reference 3, Section 2.1	Attachment 3-3Q, Page 1
NR-P-1B	Transfer to 1R 480V ES bus	ISPH-FZ-1 & ISPH-FZ-2	CB-FA-2b	Reference 3, Section 2.1	Attachment 3-0, Sheet 3a

Note 1. References specified in the table above are references provided in Attachment 1.