

**Nuclear**

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U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

Gentlemen:

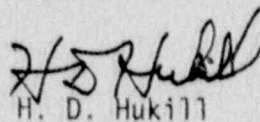
Three Mile Island Nuclear Generating Station, Unit 1 (TMI-1)  
Operating License NO. DPR-50  
Docket No. 50-289  
Response To Station Blackout Rule SER

By letter dated April 17, 1989, GPU Nuclear submitted the TMI-1 response to the Station Blackout Rule (SBO). The NRC reviewed the submittal and formally responded to GPUN in the Safety Evaluation Report (SER) received on December 27, 1989.

In accordance with Rule requirements, this letter transmits the results of our review of the SER. Various clarifications to specific items in the SER are provided in the attachment.

As indicated in our submittal of 4/17/89, Modifications and associated Procedure changes related to the TMI-1 SBO Rule compliance are expected to be completed by the end of refueling outage 9R.

Sincerely



H. D. Hukill  
Vice President & Director, TMI-1

HDH/EP/lt

Attachment

cc: R. Hernan, USNRC  
W. Russell, USNRC, Region 1  
J. Stolz, USNRC  
F. Young, USNRC, TMI-1  
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## ATTACHMENT 1

### Clarification of Various Issues Discussed In The TMI-1 SBO-SER

1. General - In several sections in the SER the AAC Source is also referred to as an EDG. The use of the term EDG does not imply that the AAC system and components are required to meet Class 1E or Safety System requirements. Such requirements are not applicable to an AAC system and components.
2. Pg.3, last paragraph, line 2:  
Issue - The SER states that the EDGs are continually pre-lubed and warmed.  
Clarification - The TMI-1 EDGs are continually warmed. They are not continually pre-lubed. Pre-lubing is conducted prior to test starts.
3. Pg.4, 2nd paragraph, line 3:  
Issue - The SER refers to the independency of the AAC source from TMI services.  
Clarification - Independency refers to TMI-2 services.
4. Pg.4, 2nd paragraph, line 6:  
Issue - The SER refers to Figure 1.  
Clarification - The SER did not include a Figure 1. It is assumed that the figure referred to is identical to Attachment 1 (figure) of the 4/17/89 submittal, by GPUN in response to the SBO rule.
5. Pg.4, 2nd paragraph, lines 8, 9 and 10:  
Issue - The SER states that the DC power, independent of that used for TMI-1, will be used to supply the AAC source and its associated breaker control.  
Clarification - The new DC source will provide power to the AAC source and its associated breaker control, however it will not provide power for feeder breaker control on 4KV busses 1C, 1D, and 1E.
6. Pg. 4, last paragraph, lines 2 and 3:  
Issue - The SER states that undervoltage will automatically start the AAC supply.  
Clarification - Undervoltage will no longer automatically start the AAC source. The AAC source will be manually started from the TMI-1 control room.

Clarification (Cont'd.) - The purpose of this change is to reduce operator burden associated with a Loss of Off-Site Power (not station blackout) where all or 1 of the 2 TMI-1 EDGs start up, as well as the AAC EDG. In this case the operator should focus his attention on loading the TMI-1 EDGs.

A started but unloaded AAC would divert operator attention to load the AAC generator as well.

Manually starting the AAC source from the control room still meets the SBO rule requirements while reducing operator burden by not starting the AAC until the operator is ready to load it. This clarification was discussed with the NRC (R. Hernan) during a telephone call on December 29, 1989. The NRC indicated this is acceptable and requested that this information be included in the contents of this letter.

7. Pg.6, 3rd paragraph, lines 3, 4 and 5:

Issue - The SER states that the AAC EDG is required to have a cooling system independent of off-site power, or TMI-1 power sources.

Clarification - The AAC source will utilize, for cooling purposes, the TMI-1 fire service system. Parts of this system have their own independent power sources. The fire service system can provide the necessary water for this cooling function during an SBO without relying upon off-site power, the TMI-1 EDGs or the TMI-2 DC distribution system.

8. Pg.7, last paragraph, last sentence:

Issue - The SER states a contingency based on the control room being cooled by the HVAC system(s) powered by the AAC Source

Clarification - The control room HVAC is powered from either TMI-1 emergency bus. The AAC source will be available within 10 minutes to power either emergency bus and its associated equipment. The AAC source has the capacity and capability of the normal EDGs and therefore can power the control room HVAC loads.

9. Pg.9, last paragraph:

Issue - The SER states that the modifications are scheduled for the Fall of 1991.

Clarification - These modifications will be performed during refueling outage 9R (which is currently scheduled for the Fall of 1991).

10. Pg.10, 2nd paragraph, last sentence:

Issue - The SER states that the independence of TMI-1 power sources for the AAC source cooling water and other equipment is subject to review by the NRC.

Clarification - See Clarification #7 above.