

June 1, 1988

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U.S. Nuclear Regulatory Commission  
Region IV  
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Dear Nemen:

FORT CALHOUN SCENARIO REVIEW

Attached are the comments resulting from our review of the subject scenario. The scenario should support a reasonable demonstration of the licensee's Emergency Response capability. No major deficiencies were noted.

The comments are classified as follows:

Major Deficiencies - Those which may have a serious negative impact on the overall conduct of the exercise - e.g., prevent an adequate demonstration of the licensee's Emergency Response capability.

Minor Deficiencies - Those items which, individually, may degrade the demonstration of certain parts of the licensee's capability, but should not significantly detract from the overall success of the exercise.

Other Deficiencies/Questions - Items such as minor deficiencies or inconsistencies in scenario data, or matters of clarity which the licensee may wish to examine or explain prior to the exercise.

If you have any questions concerning these comments, please contact me on FTS (509) 375-3782, or G. A. Stoetzel on FTS (509) 375-2781.

Sincerely,

A handwritten signature in dark ink, appearing to read "J. D. Jamison".

J. D. Jamison  
Project Manager  
Operational Health Physics  
Personnel Dosimetry Section  
HEALTH PHYSICS DEPARTMENT

A handwritten signature in dark ink, appearing to read "G. A. Stoetzel".

G. A. Stoetzel  
Senior Research Scientist  
Operational Health Physics  
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JDJ/GAS:chb

cc: WD Travers, w/enclosure  
LC Ruth, w/enclosure

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SCENARIO REVIEW  
for  
FORT CALHOUN EXERCISE, JUNE 22, 1988

Major Deficiencies

None.

Minor Deficiencies

1. The timeline at the beginning of the "plant parameters" section contains details of the operations scenario upon which the plant data is presumably based. These actions (such as starting Reactor Coolant Pumps and opening steam dump valves) are not detailed in any messages and it is not clear how the players will know that they have been accomplished. In general, the plant data does not contain enough of the details of plant operations (equipment operating, annunciator status) to allow the players to follow the scenario without a great deal of "coaching" by controllers.

Other Deficiencies/Questions

1. Master Scenario Events - The entry under "time: 09:35 (approx.)" should read MS-279 not MS-275.
2. Exercise Messages - Some of the exercise messages are not numbered.
3. Exercise Messages - No contingency message was found for the General Emergency. Was this intentionally omitted or is a contingency message needed to keep the exercise moving and get all offsite agencies involved in the exercise and their emergency centers activated?
4. Exercise Message (time 0900-0930) - More detailed information appears to be needed on contamination levels for the injured worker. For example, this message indicates the direct radiation readings from contamination are 4-5 mR/h. Is this the reading taken in Room 81 or after the victim has been removed to a lower background area? Also no information is given on contamination levels after completion of any decontamination actions, or when protective clothing is removed.
5. EOF Messages - EOF Messages EOF-2 through EOF-7 may overload the Administrative Logistics Manager. Consideration should be given to whether the Administrative Logistics Manager and his staff can realistically be expected to complete the actions in these messages during the time frame of the exercise (approximately 9:25-13:00).
6. FC-197 - No forecast meteorological data was found in the scenario.

7. The narrative summary states that an Alert will be declared due to the loss of one fission product barrier (containment) when the stack effluent monitor reading begins to increase. At 0745 the "master scenario event" section states that the expected action is declaration of an Alert based on a challenge to a barrier. The 07:45 message to the Shift Supervisor cites (in the Controller/Observer use only section) the definition of barrier challenge. It appears that the symptoms indicate actual failure of a barrier.
8. Exercise data sheets:
  - Item number 4, "#CEAs not full in" is zero for all times, even before the scram.
  - Item number 8, "Boron concentration" is given as NA. Why?
  - Items 18 and 20 are given as "CSAS" and "CIAS" respectively throughout the exercise. The meaning is not apparent since containment spray and containment isolation are clearly not initiated throughout the exercise.
9. The timeline at the beginning of the "plant parameters" section shows MS-279 being manually closed at 9:30. The (unnumbered) message to maintenance stating that MS-279 has reseated carries the time 09:35-09:40.