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 ZIEMANN, D.L.    OPERATING REACTORS BRANCH 2

SUBJECT: FORWARDS COMMENTS ON TECH SPECS & FIRE PROTECTION SAFETY  
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RESEARCH REPORT NO. 1000

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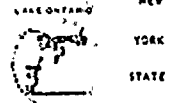
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LEON D. WHITE, JR.  
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March 13, 1979

Director of Nuclear Reactor Regulation  
Attention: Mr. Dennis L. Ziemann, Chief  
Operating Reactors Branch No. 2  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Fire Protection  
R. E. Ginna Nuclear Power Plant  
Docket No. 50-244

Dear Mr. Ziemann:

By letter dated February 14, 1979, you transmitted the NRC Staff Fire Protection Safety Evaluation Report for Ginna Station. We have reviewed the Report and have several comments, clarifications and corrections to offer. These are itemized in the Attachment to this letter.

The schedule for submittal of information which was requested by your letter will be by a separate letter.

Very truly yours,

*L. D. White, Jr.*  
L. D. White, Jr.

Attachment

A006  
5/11

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## Attachment A

### Comments on Technical Specifications and Fire Protection Safety Evaluation Report Issued February 14, 1979

#### Technical Specifications:

- 1) Basis for Section 3.14 P. 3.14-4. The yard hydrants on the southeast corner of the yard loop provides back-up fire suppression capability not primary capability for the transformers and standby auxiliary feedwater building. Primary protection for the transformers is provided by a fixed water suppression in the transformer area. Due to the low fire loading, extinguishers are considered adequate for primary protection of the standby auxiliary feedwater building.
- 2) Specification 4.15.2.e. For clarification, the method of obtaining the sample from the day tank has been discussed with members of the NRC Staff. It was agreed that a sample would be withdrawn from the fuel line running from the day tank to the diesel engine.

#### Fire Protection Safety Evaluation Report

- 1) P. 3-2 item 3.1.4, P. 4.9, item 4.4.5 and P. 5-2 item 5.1.6. A curb will be installed around the reactor coolant pump only if an automatic suppression system is installed (see item 3.1.39). In this case it would be installed by 6/81. If an oil collection system is installed, no curbs are required.
- 2) P. 3-2 item 3.1.8 calls for the intermediate building cable tunnel opening to be sealed. This is inaccurate since an entrance is necessary. Item 3.1.5 calls for a three hour rated "A" labelled door for this opening.
- 3) P. 3-2 item 3.1.8. In order to resolve concerns about a fire barrier between the nitrogen storage building, which is used to store hydrogen as well, and the auxiliary building and about the hydrogen piping within the auxiliary building (see item 3.1.48), an alternative is being considered. This alternative would involve moving the hydrogen storage to a separate location removed from the auxiliary building and relocating the hydrogen piping in the auxiliary building.
- 4) P. 3-4 item 3.1.20 has the "A" and "B" label designations switched for the diesels.



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- 5) P. 3-4 item 3.1.22 (3) and P. 4-5, item 4.3.1.3 require snow removal procedures during snow storms. We believe the words "to the extent practical" should be added to this. The length and intensity of a storm has a tremendous bearing on what is necessary during a storm. This was discussed during our deliberations of this particular item.
- 6) P. 3-6 item 3.1.29 and P. 4-5 item 4.3.1.2. These paragraphs require the diesel fire pump engine to be operated for a minimum of 1/2 hour each month. The Technical Specifications require a 15 minute test, not a 1/2 hour test. Therefore, these paragraphs should be corrected to reflect a 15 minute test. As discussed with the NRC Staff, the 15 minute test is adequate to determine operability.
- 7) P. 3-7 item 3.1.38 and P. 4-14 item 4.11. This requirement has never been discussed with us by the NRC Staff. The wall separating the north and south sections of the intermediate building has never been considered a fire barrier. The fire hazards analysis used the wall as a zone border but pointed out that the wall was there for radiological considerations and the drawings do not indicate that it qualifies as a fire barrier. We see no justification for upgrading this wall.
- 8) P. 3-11 item 3.1.15. In the schedule for completion of modifications, Table 3.1, this item is incorrectly listed as being complete. Although flame retardant coating has been applied in the east cable vault, the modifications in the relay room will not be completed until 6/81.
- 9) P. 3-11 item 3.1.29. To be consistent with Technical Specification 4.15.2.e, it should be clarified that testing of the diesel fire pump fuel oil is required after June 1, 1979. The deferred effective date is allowing time for a sample tap in the fuel oil line to be installed.
- 10) P. 4-2 item (4) states that source range neutron detectors are required during shutdown. This is not true and should be deleted. Shutdown condition can be ensured through addition of sufficient borated water to the primary system.
- 11) P. 4-4 item 4.3.1.1 states there are two locations for wall hydrants on the plant. Actually, there are four.



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- 12) P. 4-5 item 4.3.1.3 discusses modifications to the fire service water piping to reduce the number of interior hose stations that might be isolated if one section of the piping were taken out of service. Actually, planned modifications are for the purpose of preventing isolation of both fixed protection and hoselines that protect the same area.
- 13) P. 4-6 item 4.3.1.4 refers to elevation 293 of the auxiliary building. We believe this should be elevation 293 the controlled (south) side of the intermediate building.
- 14) P. 4-9 item 4.4.4 discusses the battery room ventilation system. The system described is the proposed modification, not the existing system. The existing system has nearly 100% makeup air.
- 15) P. 4-10 item 4.4.6 discusses emergency lighting. Clarification would help here as the implication is that emergency lighting is not now generally available. Battery operated emergency lighting units are being added throughout the plant. However, in addition to the normal lighting system, emergency lights are presently installed throughout the plant and are run off the emergency busses.
- 16) P. 4-11 item 4.9.1 calls for the door between the relay room and the computer room to be upgraded to a three hour labelled door. Since the walls are rated at two hours and the modified ceiling at one hour, the door requirement should be 1 1/2 hour, "B" label.
- 17) P. 4-14 item 4.12 discusses the cable tunnel accesses. There seems to be some confusion as to the accessibility of the tunnel. There are three tunnel endings. The ending at the control building is sealed with no access. The ending at the auxiliary building is closed with an access door in the barrier. The ending at the intermediate building is open but a modification is planned to close this opening with an access incorporated in the barrier. All three barrier closings will be rated at three hours.
- 18) P. 5-1 item 5.1.3 states that "some" valves required for safe shutdown and primary coolant temperature instrumentation could be damaged in a reactor coolant pump lubricating oil fire. One valve in each reactor coolant pump area could be damaged. Furthermore, other flow paths are available should the valve in either reactor coolant pump area be inoperable. These flow paths would permit the plant to be maintained in a



safe shutdown condition. In addition, loss of the primary coolant temperature indication for a loop would not preclude the plant from being maintained in a safe shutdown condition.

- 19) P. 5-2 item 5.1.6 (2) states that a hose station will be provided for all hazards and safety-related equipment. Certain safety-related equipment is not combustible and does not require protection. Protection will be provided by means of suppression for any hazards which could affect safety related equipment.
- 20) P. 5-4 item 5.3.3 and P. 5-5 item 5.3.6(6) have the "A" and "B" diesels reversed.
- 21) P. 5-5 item 5.3.6 (7) was not discussed or committed to. Safe shutdown capabilities should a fire occur in this area will be addressed in the Shutdown Analysis which is item 3.2.1. It should be noted that flame retardant cable coating has been applied to the cables in this vault and detection will be installed. There is no external heat source in this vault and hence a fire has low credibility.
- 22) P. 5-6 item 5.4.2 states that certain transients were not included in the licensee's Fire Protection Evaluation and that there were "large" quantities of paper, clothes, and paints on the operating floor. All these transients were included in the report in a lump figure rather than being spelled out individually. Much of the paper in the listed nine cabinets has been removed and the clothes are actually rags for cleaning purposes. The contents of these cabinets were however included in the Fire Protection Evaluation.
- 23) P. 5-7 item 5.4.6 (6) talks about doors and entrances. There is only one entrance at this level and it will be upgraded with a 3-hour rated door.
- 24) P. 5-7 item 5.4.6 suggests storage of paper, cloth, etc. should be limited to approximately one week's supply at the most. To be consistent, this time period should be two weeks as shown in item 3.1.47.
- 25) P. 5-8 item 5.5.3 lists containment cooling as a safety-related system required for shutdown. In fact, it is not required for shutdown.
- 26) P. 5-8 item 5.5.4 states that the turbine driven auxiliary feedwater pump oil tank is curbed. It is not curbed but has drainage around it.
- 27) P. 5-9 item 5.5.5 lists the 253'-6" elevation of the intermediate building as the intermediate floor. It is the basement floor.



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- 28) P. 5-9 item 5.5.6 (2) calls for water spray systems to be provided for a portion of the intermediate floor. The elevation is the basement floor.
- 29) P. 5-9 item 5.5.6 (4) calls for the cable tunnel to be sealed. In fact, a barrier will be provided with a rated door.
- 30) P. 5-9 item 5.5.6 states that we committed to provide corrective modifications, "pending" the safe shutdown analysis. This is incorrect. We will perform modifications which are necessary following the analysis.
- 31) P. 5-11 item 5.7.5 describes a modification that was being planned at the time of the NRC site visit in June 1978. In fact, the present system has nearly 100% makeup air.
- 32) P. 5-12 item 5.8.3 is incorrect. The control room ventilation system is not required for safe shutdown. The safe shutdown analysis will determine if the cables from the cable tunnel are required for safe shutdown and hence it should not be stated at this time that fire will leave the plant without the capability to safely shutdown.
- 33) P. 5-13 item 5.8.6 states that "pending" the safe shutdown analysis, necessary modifications have been committed to. We will perform any modifications which are necessary following the analysis.
- 34) P. 5-13 item 5.9.3 states that a fire in this room will deprive the plant of the capability to safely shutdown. This has not been established.
- 35) P. 5-13 item 5.9.5 states that the existing fire protection is inadequate to prevent a fire from damaging redundant cables in the room which serve safety-related systems required for safe shutdown. This has not been established.
- 36) P. 5-15 item 5.10.4 does not include all of the fire protection provided for the area. In addition to the CO<sub>2</sub> extinguishers, ionization detection is installed in the return air duct, one pressurized water extinguisher is installed in the room, and a hose line is available outside the room in the turbine building.
- 37) P. 5-15 item 5.10.6 states that a smoke detector will be installed in each safety-related cabinet, etc. The commitment was that early warning detection would be provided for each cabinet. We have not agreed specifically to install smoke detectors and have not committed to putting the detection inside the cabinets.



- 38) P. B-2 staff response indicates a delayed decision on manual versus automatic operation of water spray system(s) pending further fire hazards analysis. There does not appear to be any reason to defer a decision on this item and it may adversely affect design and hence installation of any fixed systems in this area. Therefore, we request that the Staff promptly reach a decision so that our installation schedules are not adversely affected.