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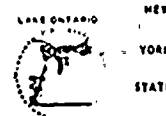
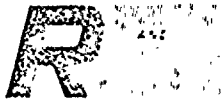
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LEON D. WHITE, JR.
VICE PRESIDENT

TELEPHONE
AREA CODE 716 546-2700

October 31, 1978

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

REGULATORY DOCKET FILE COPY

Dear Mr. Ziemann:

This letter is in response to your letter dated October 6, 1978 which was received October 16, 1978. The attachment to this letter responds to five of the eight questions raised in your letter. We have found that additional time is necessary to respond to questions 78 and 79 and to position 36. We will submit our answers to these three items as soon as they are completed. In addition, we have found it necessary to revise the answers previously provided for positions 9 and 28.

Very truly yours,

L. D. White, Jr.

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76.

In the response to our Request No. 11, you stated that there are several fire barriers in certain plant areas which have a rating of less than 3-hours. Identify all fire barriers with less than 3-hour rating and verify that the fire severity in fire areas on either side of each barrier is less than the fire resistance rating of the barrier.

Response: In our response to Staff Request No. 11, we referenced our Fire Evaluation Report, and particularly the figures included in that report, for details of the fire ratings. For the convenience of the Staff we present below a summary of all fire barriers which are or will be rated or ratable at less than 3 hours. Justification for acceptability of these ratings are presented in our Fire Evaluation Report. Should the Staff require additional justification, we would appreciate receiving specific requests. Specific page references to our Fire Evaluation Report are provided for each area discussed. All barriers between fire areas which are not discussed are 3 hour barriers.

1. An automatic fire damper will be installed over the opening for the spent fuel pool charcoal filter in the wall between the auxiliary building and the intermediate building (p 4.2-11). We will attempt to provide a 3 hour barrier, however, due to space limitations, this may not be possible. If it is not possible, equivalent protection will be provided for the safety-related cables above the opening.
2. A portion of the wall between the intermediate building and the service building is a 2 hour barrier (p 4.3-7). This is acceptable based on the low fire loadings.
3. The wall separating the control building and the turbine building at the lower two elevations is a 2 hour barrier (p 4.4-1). See the Fire Evaluation for justification.
4. The wall between the A battery room and the mechanical equipment room is ratable as a 2 hour barrier. The door in that wall and the damper in the ventilation duct have or will have a 1½ hour rating (p 4.4-3).

5. The wall between the A battery room and the B battery room is ratable as a 2 hour barrier. The door in that wall and the damper in the ventilation duct have or will have a 1½ hour rating (p 4.4-5).
6. The dampers in ducts between the turbine building and the A battery room, the B battery room, and the mechanical equipment room have or will have 1½ hour ratings.
7. The doors from the relay room to the computer room, the stair tower and the turbine hall will be replaced with B-labeled 1½ hour rated doors (p 4.4-9).
8. Fire dampers in the computer room ducts will have a 1½ hour rating (p 4.4-10). The ceiling of the computer room will be replaced with a 1 hour barrier (p 4.4-11).
9. The control room - turbine building wall will be protected with a water curtain (p 4.4-13).
10. The opening from the cable tunnel to the intermediate building will be closed by a barrier (p 4.7-2). It is likely that this will not carry a rating since it must be custom designed. It will be designed to be equivalent to a 3 hour barrier.
11. The door between the service building and the turbine building at the 271'-0" level will be left unrated since neither structure contains safety related equipment (p 4.9-1).
12. The door from the turbine oil storage building to the turbine building is a B-labeled, 1½ hour door (p 4.11-1).
13. The wall between the nitrogen storage building and the auxiliary building will be 2 hour rated (p 4.14-1).
14. The floor construction in the control building is 6 inch reinforced concrete on unprotected structural steel. The steel prevents the floor from being ratable as a 3-hour fire barrier (p 4.4-1). Protection of the steel is being addressed under Staff Position P8.
15. The doorway from the standby auxiliary feedwater pump building (SAF) to the unrated access structure does not have a rated door (Drawing D-024-017). A rated door is not required for the following

reasons. The area of the auxiliary building in the immediate vicinity of the doorway does not contain either combustibles or safety related equipment (see Drawing D-024-010 and FSAR Figure 1.2-12). The standby system is required only in the event of unavailability of the auxiliary feedwater system. Thus a fire in the SAF will not affect safe shutdown or damage any other safety related equipment. A fire in the auxiliary building that could affect the SAF is not reasonable to postulate based on auxiliary building equipment configuration and low level of combustibles in the SAF.

77. Your response to our Request No. 13 did not address the issue which requested that all safety-related areas not provided with either the automatic suppression or automatic fire detection be identified. Provide a list of such plant areas and your justification of the lack of such fire protection measures.

Response: Our response to Staff Question No. 13 committed to providing early warning detection systems in all areas that contain safe shutdown equipment or cables. We also referred the Staff to our Fire Protection Evaluation, submitted February 24, 1977 for a discussion of areas which did not contain automatic suppression. Lack of automatic suppression in certain areas was justified on the basis of low fire loading.

The following areas contain safe shutdown or safety related cables or equipment:

<u>Area</u>	<u>Safety-Related</u>	<u>Safe Shutdown</u>
1. Containment	Yes	Yes
2. Auxiliary, all levels	Yes	Yes
3. Intermediate building		
a. Sub-basement	No	No
b. 253'6" South	Yes	No
c. 253'6" North	Yes	Yes
d. 271'0" South	Yes	No
e. 278'4" North	Yes	Yes
f. 293'0" South	No	No
g. 298'4" North	Yes	No
h. 315'4" North	No	No
4. Control Building		
a. A/B battery rooms	Yes	Yes
b. Mech. equip. room	Yes	Yes
c. Relay room	Yes	Yes
d. Computer room	No	No
e. Control room	Yes	Yes
5. Diesel Generator		
a. A/B diesel room	Yes	Yes
b. A/B cable vault	Yes	Yes
6. Screen House		
a. Basement	Yes	Yes
b. Main floor	Yes	Yes
7. Cable Tunnel	Yes	Yes
8. Turbine Building	No	No
9. Service Building	No	No
10. Standby Aux FW building	Yes	Yes
11. Turbine Oil Storage Area	No	No
12. H ₂ Storage Area	No	No
13. AVT building	No	No
14. N ₂ Storage building	No	No

Detection will be provided in every area which contains safety-related equipment. Detection is assumed to be provided to the area of a specific piece of equipment or length of cable if it will detect and annunciate a fire in the vicinity of that piece of equipment or length of cable. Automatic suppression will be provided to the extent previously discussed.

80. The fire hazards analysis for the turbine building does not include all combustibles in the area (e.g., Hydrogen for the generator cooling). Provide the results, of revised analysis which includes all combustibles in the turbine building.

Response: This question was apparently prepared before the Staff had an opportunity to review our submittal of September 22, 1978. The turbine building fire loading is described in detail, including the hydrogen for the generator cooling in that submittal.

81. In your response to our Request No. 37, remote shutdown stations were identified and the procedures to shut down the plant from these stations were discussed. However, our concern that a fire in these areas may impair the control from the control room and at the same time prevent the local control of safe shutdown system(s) was not addressed. Provide the results of such an analysis in any areas from which shutdown and cool down operation outside the control room could be effected.

Response: In the response to positions P6, P7 and P10 in our letter of September 22, 1978 we described an analysis currently underway to ensure that Ginna can be taken to cold shutdown following any "major" fire. This analysis will address the Staff concern raised in question 81. The analysis will be submitted to the Staff for review when completed.

P-35

In addition to the alternate shutdown capability specified in Staff Position No. 7, all cables in the relay room (cable spreading room) should be provided an appropriate flame retardant coating. An alternative (to the coating) of providing a fixed piping, manually operated water suppression system, as specified in Section F.3.(b).(3) of appendix A to BTP 9.5-1, is acceptable.

Response: Either a manually operated water suppression system will be installed in the relay room or all cable trays in the relay room will be provided with an appropriate flame retardant coating. If a water suppression system is installed, it will be isolated with a manual valve to preclude inadvertent operation.

Emergency Lights

8-hour rated fixed, sealed beam emergency lighting units should be provided in safety-related areas and other areas which contain major fire hazards to facilitate the emergency operation, manual fire fighting, and access to, and egress from, each fire zone.

Response: In our letter of September 1, 1979, we agreed to this position. Since that time we have reviewed the emergency lights on the market and have found an alternative lighting concept that we believe meets the requirements. The alternate is not specifically of sealed beam design. It is a high efficiency halogen lamp which provides 25% more light with half the power requirement than the comparable sealed beam unit. Thus, we propose to use either the sealed beam unit or the alternate described here.

P28

Shift Fire Brigade (second half)

The Shift Foreman should not be a member of the fire brigade because his presence will be necessary in the control room or other areas if fires occur in certain critical areas of the plant.

Response: In our letter of September 22, 1978, we committed to having an operator who has a Senior Reactor Operators (SRO) license who is not a member of the fire brigade at all times. Further review has revealed that this may not be possible during certain times of the year. Throughout most of the year, we will comply with our September 22, 1978 commitment. We occasionally find that the Shift Foreman or the SRO is on vacation or otherwise not on shift and there is not another SRO available. In these cases, one of the operators who holds a Reactor Operators license is upgraded. Before being upgraded, this person must be qualified through on-the-job training. He accomplishes this through training under the direction of the SRO and Shift Foreman until he satisfies the Shift Foreman that he is qualified to be upgraded. In addition, the normal classroom training for Reactor Operator is identical to that for Senior Reactor Operator. He would be the person, then, to direct the shutdown of the plant.