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*the southern electric system*

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X7GJ17-V600

May 19, 1988

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

PLANT VOGTLE - UNIT 1  
NRC DOCKET 50-424  
OPERATING LICENSE NPF-68  
REQUEST TO REVISE TECHNICAL SPECIFICATION 3/4.7.6  
CONTROL ROOM EMERGENCY FILTRATION SYSTEM

Gentlemen:

In accordance with 10 CFR 50.90 as required by 10 CFR 50.59(c)(1), Georgia Power Company (GPC) hereby proposes to amend the Vogtle Electric Generating Plant Unit 1 Technical Specifications, Appendix A to Operating License NPF-68.

The Unit 1 and Unit 2 areas of the Plant Vogtle control room are presently separated by a temporary wall; while the HVAC systems are separated by a series of dampers, removed duct sections, and caps on open ducts. The temporary wall will be partially dismantled and the HVAC systems integrated several months prior to receipt of the Unit 2 operating license.

The proposed amendment contains two categories of changes: (1) changes necessary to allow removal of control room wall panels and performance of associated HVAC testing during Unit 1 operation, and (2) changes necessary to assure proper operation of the Unit 1 HVAC following wall removal and prior to receipt of the Unit 2 operating license.

Enclosure 1 provides a detailed description of the proposed changes and the bases for the changes.

Enclosure 2 details the basis for our determination that the proposed changes do not involve significant hazards considerations.

Enclosure 3 provides instructions for incorporating the proposed changes into the Technical Specifications. The proposed revised pages follow Enclosure 3.

In accordance with 10 CFR 170.12, a check in payment of the \$150.00 license amendment filing fee is enclosed.

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PDR ADOCK 05000424  
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w/ check #150  
#046345

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Page Two

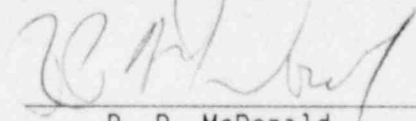
GPC will be prepared to dismantle the temporary control room wall and integrate the HVAC systems as early as August 26, 1988. In order to allow for orderly implementation of procedure revisions, training program changes, and physical modifications, GPC requests approval of the proposed amendment by August 1, 1988, with an allowable implementation period of 60 days following the date of issuance.

In accordance with 10 CFR 50.91, Mr. J. L. Ledbetter of the Environmental Protection Division of the Georgia Department of Natural Resources will be sent a copy of this letter and all applicable enclosures.


Mr. R. P. McDonald states that he is Executive Vice President of Georgia Power Company and is authorized to execute this oath on behalf of Georgia Power Company, and that to the best of his knowledge and belief, the facts set forth in this letter and enclosures are true.

GEORGIA POWER COMPANY

By:

  
\_\_\_\_\_  
R. P. McDonald

Sworn to and subscribed before me this 19th day of May, 1988.

  
\_\_\_\_\_  
Notary Public

JH/lm

Notary Public, Fulton County, GA  
My Commission Expires Feb. 23, 1991

Enclosures:

1. Basis for Proposed Changes
2. 10 CFR 50.92 Evaluation
3. Instructions for Incorporation
4. Check for \$150.00 Filing Fee

c: (see next page)

U. S. Nuclear Regulatory Commission  
May 19, 1988  
Page Three

c: Georgia Power Company  
Mr. P. D. Rice  
Mr. G. Bockhold, Jr.  
GO-NORMS

U. S. Nuclear Regulatory Commission  
Dr. J. N. Grace, Regional Administrator  
Mr. J. B. Hopkins, Licensing Project Manager, NRR (2 copies)  
Mr. J. F. Rogge, Senior Resident Inspector-Operations, Vogtle

ENCLOSURE 1

PLANT VOGTLE - UNIT 1  
NRC DOCKET 50-424  
OPERATING LICENSE NPF-68  
REQUEST TO REVISE TECHNICAL SPECIFICATION 3/4.7.6  
BASIS FOR PROPOSED CHANGES

PROPOSED CHANGE 1

Revise Footnote \* of Specification 3.7.6 to read as follows:

Note 1: During Control Room Emergency Filtration System testing preceding removal of the temporary control room wall, the Unit 1 Control Room/Unit 2 Control Room differential pressure requirement of Specification 4.7.6.e.3 is waived. The waiver is contingent upon the capability to shut down the applicable Unit 2 HVAC systems and close the applicable Unit 1/Unit 2 HVAC Isolation dampers within 4.5 minutes after receipt of a Unit 1 Control Room Isolation signal.

Add the following note to Specification 3.7.6:

Note 2: After commencement of Unit 1 Control Room Emergency Filtration System flow balancing for two-unit operation, verification of control room pressurization in accordance with Specification 4.7.6.e.3 is waived for a period not to exceed 7 days. This waiver is contingent upon receipt of acceptable test results for control room pressurization testing prior to breaching the temporary control room wall.

BASIS

These notes would permit integration of Unit 1 and Unit 2 HVAC systems and performance of the necessary testing to support removal of the temporary wall during power operation of Unit 1.

Specifically, Note 1 would allow the control room HVAC supply and return headers, which are presently separated into Unit 1 and Unit 2 sections, to be connected together. Connection of these headers allows balancing of both the Unit 1 and Unit 2 Control Room Emergency Filtration Systems (CREFSs) for two-unit operation before making an opening in the temporary wall. Dampers in the headers will enable isolation of the Unit 1 CREFS from the Unit 2 CREFS. If a Unit 1 Control Room Isolation (CRI) signal is received, closure of the required isolation dampers and shutdown of any operating Unit 2 CREFS within 4.5 minutes would ensure Unit 1 control room pressurization in accordance with the Technical Specification bases.

## ENCLOSURE 1 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATION 3/4.7.6  
BASIS FOR PROPOSED CHANGES

Once Unit 1 CREFS balancing for two-unit operation has begun, it becomes necessary to re-establish system operability in accordance with Technical Specification 4.7.6.e.3. Note 2 allows a temporary waiver of this operability verification to allow a reasonable amount of time for flow balancing, temporary wall panel removal, and re-testing of control room pressurization. The planned test sequence provides a high degree of assurance that the Unit 1 CREFS would be capable of performing its intended function during the period the waiver would be in effect. Unit 1 CREFS balancing for two-unit operation will be preceded by (1) Unit 2 control room pressurization to 1/8 inch water gauge with 650 cfm outside air, and (2) Unit 2 CREFS flow balancing for two-unit operation with 1500 cfm outside air. Acceptable results from these tests would be a prerequisite for the proposed waiver.

PROPOSED CHANGE 2

Add the following notes to Specification 3.7.6:

Note 3: Unit 2 Control Room Emergency Filtration System Fans (2-1531-N7-001 and 2-1531-N7-002) shall be controlled to prevent operation following the completion of the initial two unit control room pressurization test (pursuant to Specification 4.7.6.e.3) after removal of the temporary control room wall.

Note 4: At least one Unit 2 Control Room isolation damper (2HV-12114 or 2HV-12115) shall be locked closed and both Unit 1 Control Room isolation dampers (1HV-12114 and 1HV-12115) shall be locked open. The Unit 2 Control Room isolation dampers (2HV-12114 or 2HV-12115) may be opened when the Unit 1 Control Room Emergency Filtration System is operating in the emergency (pressurization) mode.

In addition, revise the maximum control room air temperature in Specification 4.7.6.a from 80 to 85°F. Revise the maximum control room pressurization flow in Specification 4.7.6.e.3 from 850 to 1500 cfm.

BASIS

The proposed notes restrict Unit 2 CREFS operation during the period that the temporary wall is removed and Unit 2 has not yet received an operating license. These restrictions are necessary to ensure proper operation of the Unit 1 CREFS. In addition, operating parameters of the Unit 1 CREFS are revised as necessary for two-unit operation.

ENCLOSURE 1 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATION 3/4.7.6  
BASIS FOR PROPOSED CHANGES

Following removal of temporary wall panels and pressurization testing of the combined control room, operation of the Unit 2 CREFS will not be required until receipt of the Unit 2 operating license. If a Unit 1 CRI were to occur during operation of a Unit 2 CREFS, an excessive number of CREFSs in operation could lead to fan damage from unstable operation and operator doses in excess of GDC 19 limits. Unit 2 CREFS operation will therefore be prevented during this period.

Instrumentation in the Unit 2 outside air flow path which initiates CREFS operation will not be continuously operable until receipt of the Unit 2 operating license. At least one Unit 2 control room isolation damper must therefore be maintained closed. If a Unit 1 CREFS is in operation, however, these dampers may be opened since automatic initiation would no longer be a concern. Unit 1 control room isolation dampers must be maintained open in accordance with commitments made in LER 50-424/1987-044.

An increase in the maximum pressurization flow rate from 850 to 1500 cfm is necessary to accommodate the added volume of the Unit 2 portion of the control room while an increase in the maximum air temperature from 80 to 85°F is necessary due to the added heat loads.



ENCLOSURE 2

PLANT VOGTLE - UNIT 1  
NRC DOCKET 50-424  
OPERATING LICENSE NPF-68  
REQUEST TO REVISE TECHNICAL SPECIFICATION 3/4.7.6  
10 CFR 50.92 EVALUATION

In accordance with 10 CFR 50.92, Georgia Power Company has evaluated the attached proposed amendment to the VEGP Unit 1 Technical Specifications and has determined that operation of the facility in accordance with the proposed amendment would not involve significant hazards considerations. The basis for this determination is as follows:

PROPOSED CHANGE 1

Revise Footnote \* of Specification 3.7.6 to read as follows:

Note 1: During Control Room Emergency Filtration System testing preceding removal of the temporary control room wall, the Unit 1 Control Room/Unit 2 Control Room differential pressure requirement of Specification 4.7.6.e.3 is waived. The waiver is contingent upon the capability to shut down the applicable Unit 2 HVAC systems and close the applicable Unit 1/Unit 2 HVAC Isolation dampers within 4.5 minutes after receipt of a Unit 1 Control Room Isolation signal.

Add the following note to Specification 3.7.6:

Note 2: After commencement of Unit 1 Control Room Emergency Filtration System flow balancing for two-unit operation, verification of control room pressurization in accordance with Specification 4.7.6.e.3 is waived for a period not to exceed 7 days. This waiver is contingent upon receipt of acceptable test results for control room pressurization testing prior to breaching the temporary control room wall.

BACKGROUND

Unit 1 is protected from Unit 2 construction and testing activities by the existence of physical barriers and administrative controls. In particular, the Unit 1 and Unit 2 control room areas are separated by a temporary wall and the HVAC systems are separated by a series of dampers, removed duct sections, and caps on open ducts. After the Protected/Vital

ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATION 3/4.7.6  
10 CFR 50.92 EVALUATION

Area is extended to include the Unit 2 portion of the control room, GPC proposes to remove portions of the temporary wall prior to the scheduled Unit 1 refueling outage. A plan has been developed for wall removal with a minimum of disruption to Unit 1 operation. This plan includes the following activities:

1. Preparation
  - a. Panels to be removed will be marked on both sides.
  - b. A metal frame work enclosure with 2 inches of styrofoam for noise control and an "A" cloth curtain will be installed on the Unit 1 side of the barrier prior to wire brushing, cutting, or grinding. The enclosure will minimize visual distraction, noise, and fumes while work is in progress.
  - c. Power wire brushes will be used to remove paint from the Unit 1 surfaces in order to prevent fumes while cutting.
2. Panel Removal
  - a. Traffic through the Unit 1 control room will be minimized.
  - b. Cut panel sections will be removed through the Unit 2 side of the control room.
  - c. Grinding and other noisy activities will be minimized.
  - d. Panels will be removed as quickly as possible. Figure 1 shows the panels to be removed.
3. Cleanup
  - a. The work enclosure will be removed from a panel after all construction activities on that panel are completed.
  - b. Architectural treatment will be applied when convenient for operations personnel.



## ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATION 3/4.7.6  
10 CFR 50.92 EVALUATION

HVAC system balancing to support wall removal has been planned to provide the maximum assurance of CREFS operability during each step of the process. The control room HVAC systems are shown schematically in Figure 2. The control room supply and return headers are presently separated as shown in Figure 3. HVAC balancing will be performed in the following steps:

1. Demonstrate that the Unit 2 Control Room Emergency Filtration System (CREFS) will pressurize the Unit 2 portion of the control room to 1/8 inch water gauge with respect to adjacent areas at a pressurization flow of 650 cfm or less.
2. Adjust the Unit 2 outside air dampers to approximately 1300 cfm and measure the resulting control room pressure on the Unit 2 side.
3. Measure the leakage rate of isolation dampers 1-1531-D7-100 and 101 and 2-1531-D7-100 and 101 which are shown in Figure 3. Verify that total leakage is less than 70 scfm.
4. Remove the duct caps and install the spool pieces, leaving the dampers closed.
5. Balance the Unit 2 CREFS for dual unit operation with 1500 cfm outside air and 19,000 cfm  $\pm 10\%$  recirculation.
6. Balance the Unit 1 CREFS for dual unit operation with 1500 cfm outside air and 19,000 cfm  $\pm 10\%$  recirculation.
7. Remove temporary wall sections taking previously described precautions.
8. Retest control room pressurization.

Pressurization testing of the Unit 2 CREFS with Unit 1 at power (Steps 1 and 2) has been approved by NRC via Amendment 4 to the Unit 1 Technical Specifications.

Measurement of leakage through the Unit 1/Unit 2 isolation dampers (Step 3) will be performed by reducing the pressure in the space between the damper and the duct cap to below atmospheric. Leakage will be measured to verify that the total does not exceed 70 scfm. This step is necessary to assure the capability to isolate the Unit 1 portion of the control room and restore the HVAC boundary. The isolation dampers will

## ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATION 3/4.7.6  
10 CFR 50.92 EVALUATION

be manned whenever they are opened prior to completion of Unit 1 flow balancing and pressurization testing of the combined control room (Steps 5 and 6). If a Unit 1 Control Room Isolation (CRI) signal is received during this period the combination of dampers required to meet the leakage criterion will be closed within 4.5 minutes. Closure of these dampers and shutdown of any operating Unit 2 CREFS will assure pressurization of the Unit 1 control room in time to limit operator doses to less than GDC 19 limits. The basis for the 4.5 minute time limit is as described in GPC letter SL-4398, dated March 23, 1988. The proposed Note 1 to Specification 3.7.6 would assure that the isolation dampers would be closed within the required time limit.

During the period of time that the Unit 1 outside air flow rate is being adjusted from 850 to 1500 cfm (Step 6), it is possible that the actual flow rate could be between 850 and 3000 cfm if a CRI were to occur. In these circumstances adequate flow to pressurize the Unit 1 control room is assured. Calculations have been performed showing that outside air flow rates into the Unit 1 control room of up to 3000 cfm do not result in operator doses in excess of GDC 19 provided that one train of CREFS is stopped within 30 minutes of accident initiation.

Removal of temporary wall panels (Step 7) is not expected to have an effect on the capability to pressurize the two-unit control room with 1500 cfm outside air.

Although it is fully expected that the Unit 1 CREFS would perform its intended function if challenged during Steps 6 and 7, operability of the CREFS in the strictest sense of the Technical Specifications will not be established until the completion of Step 8, re-testing of control room pressurization with wall panels removed. Based on the reasonable assurance that the CREFS would provide pressurization capability and, hence, radiation protection during Steps 6 and 7, GPC proposes to add Note 2 to Specification 3.7.6 to waive the required demonstration of CREFS operability for a 7 day period to allow adequate time for the completion of Step 8.

ANALYSIS

GPC has reviewed the proposed change with respect to the requirements of 10 CFR 50.92 and has determined that the change does not involve significant hazards considerations. In support of this conclusion, the following analysis is provided.

ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATION 3/4.7.6  
10 CFR 50.92 EVALUATION

1. The proposed change does not significantly increase the probability or consequences of an accident previously evaluated. The change affects only systems, components, and procedures which function to mitigate the consequences of accidents; that is, they function after an accident has initiated. The probability of previously evaluated accidents is therefore not affected. The plan for wall removal and HVAC balancing has been developed with a test sequence and contingency actions which provide a high degree of assurance that the Unit 1 CREFS would function to limit control room doses to those analyzed in the FSAR. The consequences of previously analyzed accidents are therefore not significantly increased.
2. The proposed change does not create the possibility of a new or different kind of accident than any accident previously evaluated. The wall removal procedure contains adequate precautions to preclude any threat to control room habitability while the work is being performed. The CREFS modification will be designed, procured, and installed to the same specifications and procedures as the existing HVAC. Since there is no new type of hardware, a new or different failure mode could not result.
3. The proposed change does not significantly reduce a margin of safety. During wall removal and HVAC balancing, redundant Unit 1 CREFS trains will be available. The dampers which will replace the duct caps as HVAC boundaries will be leak tested to assure adequate isolation capability. The extension of the time limit for demonstrating CREFS operability will not reduce safety margins because prerequisite steps will provide a high degree of assurance of operability. Safety margins are therefore not significantly reduced.

CONCLUSION

Based on the preceding analysis, GPC has determined that the proposed change to the Technical Specifications will not significantly increase the probability or consequences of an accident previously evaluated, create the possibility of a new or different kind of accident from any accident previously evaluated, or involve a significant reduction in a margin of safety. GPC therefore concludes that the proposed change meets the requirements of 10 CFR 50.92(c) and does not involve significant hazards considerations.

ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATION 3/4.7.6  
10 CFR 50.92 EVALUATION

PROPOSED CHANGE 2

Add the following notes to Specification 3.7.6:

Note 3: Unit 2 Control Room Emergency Filtration System Fans (2-1531-N7-001 and 2-1531-N7-002) shall be controlled to prevent operation following the completion of the initial two unit control room pressurization test (pursuant to Specification 4.7.6.e.3) after removal of the temporary control room wall.

Note 4: At least one Unit 2 Control Room isolation damper (2HV-12114 or 2HV-12115) shall be locked closed and both Unit 1 Control Room isolation dampers (1HV-12114 and 1HV-12115) shall be locked open. The Unit 2 Control Room isolation dampers (2HV-12114 or 2HV-12115) may be opened when the Unit 1 Control Room Emergency Filtration System is operating in the emergency (pressurization) mode.

In addition, revise the maximum control room air temperature in Specification 4.7.6.a from 80 to 85°F. Revise the maximum control room pressurization flow in Specification 4.7.6.e.3 from 850 to 1500 cfm.

BACKGROUND

The activities discussed in Proposed Change 1 will result in a two-unit control room with two air intakes supplying outside air to the common control room. The normal HVAC outside air intake flowrate will remain 3000 cfm as previously evaluated irrespective of whether Unit 1, Unit 2, or both flowpaths are being used. Each outside air flowpath must have instrumentation capable of initiating protective action for a chlorine or radiation release. In addition, each ESFAS train in each unit must be capable of initiating CREFS to provide radiation protection on a Safety Injection (SI) signal. One CREFS train will provide radiation protection and heat removal for the combined control room.

During the period that the temporary wall is dismantled, Unit 1 is operating, and Unit 2 has not yet received an operating license, operation of the Unit 2 CREFS must be restricted to assure that the Unit 1 CREFS would be capable of performing its intended function. The Unit 2 outside air intake will be maintained closed during this period since the instrumentation in the flow path which initiates control room

## ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATION 3/4.7.6  
10 CFR 50.92 EVALUATION

isolation will not be continuously operable. Operation of the Unit 2 CREFSs will be prevented to assure that, in the event of a Unit 1 CRI, operation of an excessive number of CREFSs will not lead to fan damage from unstable operation or unacceptable control room doses. The Unit 1 outside air flowpath is provided with two redundant chlorine detection systems and two redundant radiation monitoring systems. The chlorine detection systems are inoperable and the Unit 1 control room isolation dampers are maintained open as discussed in LER 50-424/1987-044. Each SI signal for Unit 1 will initiate its associated CRI signal thereby actuating the associated CREFS and isolating the normal HVAC system.

The added volume of the Unit 2 portion of the control room necessitates an increase in the maximum pressurization flow rate from 850 to 1500 cfm. Additional heat loads from the Unit 2 portion of the control room require that the maximum control room air temperature be increased from 80 to 85°F.

ANALYSIS

GPC has reviewed the proposed change with respect to the requirements of 10 CFR 50.92 and has determined that the change does not involve significant hazards considerations. In support of this conclusion, the following analysis is provided:

1. The proposed change will not significantly increase the probability or consequences of an accident previously evaluated. The change affects only systems, components, and procedures which function to mitigate the consequences of an accident; that is, they function after the accident has been initiated. The change therefore does not increase the probability of any accident previously evaluated. The control room interface with the environment at the Unit 2 boundary will continue to be physically isolated (by dampers in lieu of the temporary wall and duct caps) and the capability to pressurize the control room to at least 1/8 inch water gauge with respect to adjacent areas is maintained. The control room continues to meet 10 CFR 50 Appendix A GDC 19 and the consequences of accidents previously evaluated are not increased.
2. The proposed change does not create the possibility of a new or different kind of accident than any accident previously evaluated. The Unit 2 CREFSs are not required to function or to be operated after control room wall opening until receipt of the Unit 2 operating



ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATION 3/4.7.6  
10 CFR 50.92 EVALUATION

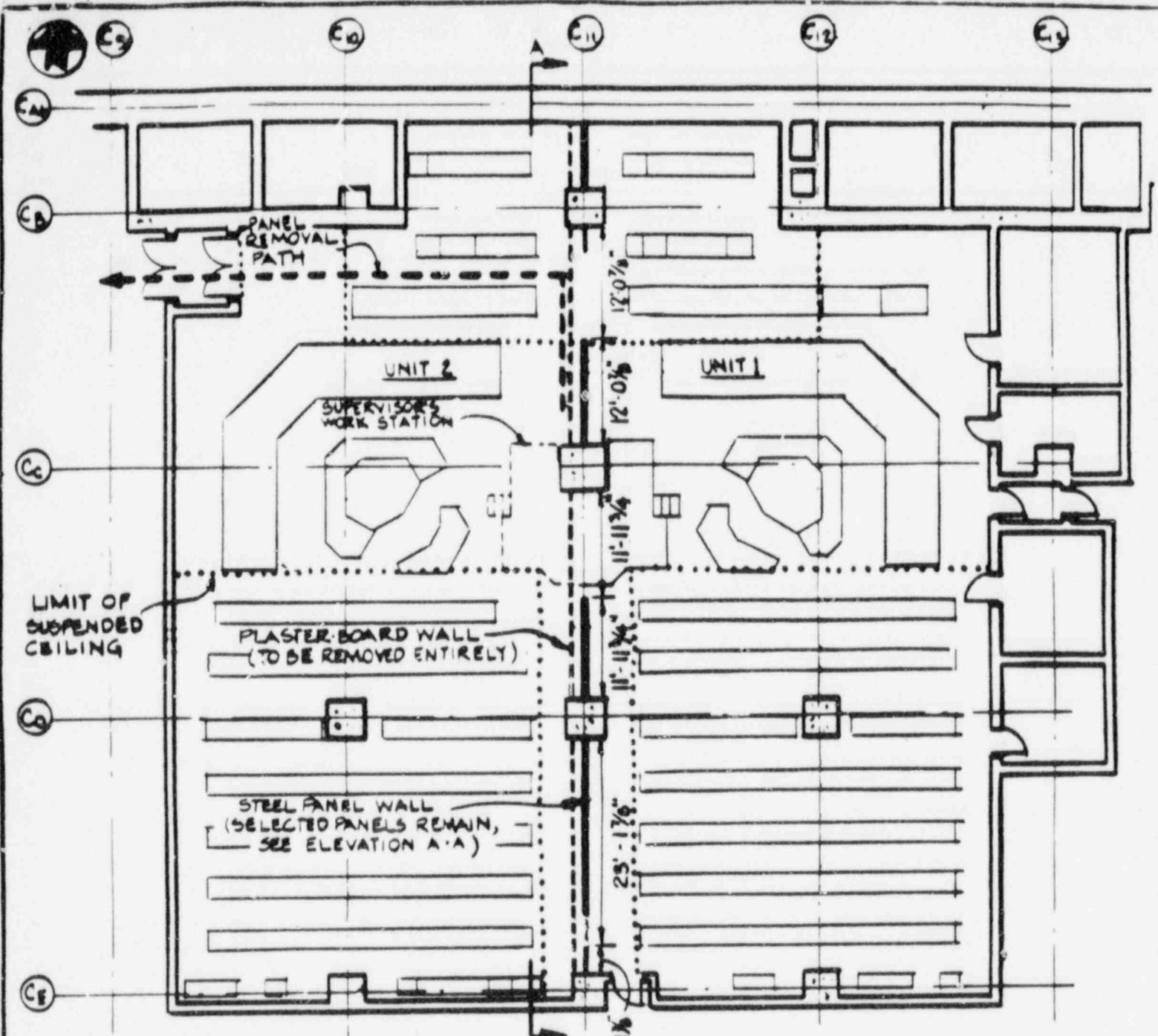
license and Technical Specifications. The Unit 2 CREFSs will be controlled to prevent their operation during this time period. The CREFS ductwork, dampers, and controls for each unit are designed, procured, and installed to the same specifications and procedures, thus, there are no new types of hardware which might introduce the possibility of a new accident.

3. The proposed change does not significantly reduce a margin of safety. The number of CREFSs is maintained, and the redundancy requirements for the single unit control room are met for the two unit control room. The revision of the maximum control room temperature from 80 to 85°F has been reviewed and found to have no significant impact on the qualified life of equipment in the control room. The revision to the maximum control room pressurization flow rate provides adequate outside air to pressurize the two unit control room without exceeding 10 CFR 50 Appendix A GDC 19 dose limits. Margins of safety are therefore not significantly reduced.

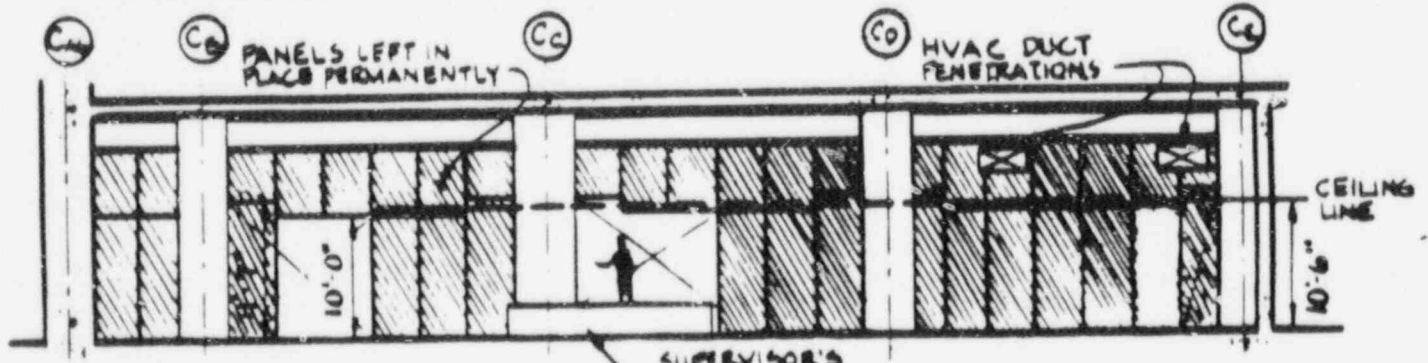
CONCLUSION

Based on the preceding analysis, GPC has determined that the proposed change to the Technical Specifications will not significantly increase the probability or consequences of an accident previously evaluated, create the possibility of a new or different kind of accident from any accident previously evaluated, or involve a significant reduction in a margin of safety. GPC therefore concludes that the proposed change meets the requirements of 10 CFR 50.92(c) and does not involve significant hazards considerations.





PLAN



ELEVATION A-A

PARTIAL REMOVAL OF BULLET-RESISTANT PARTITION

FIGURE 1

FIGURE 2

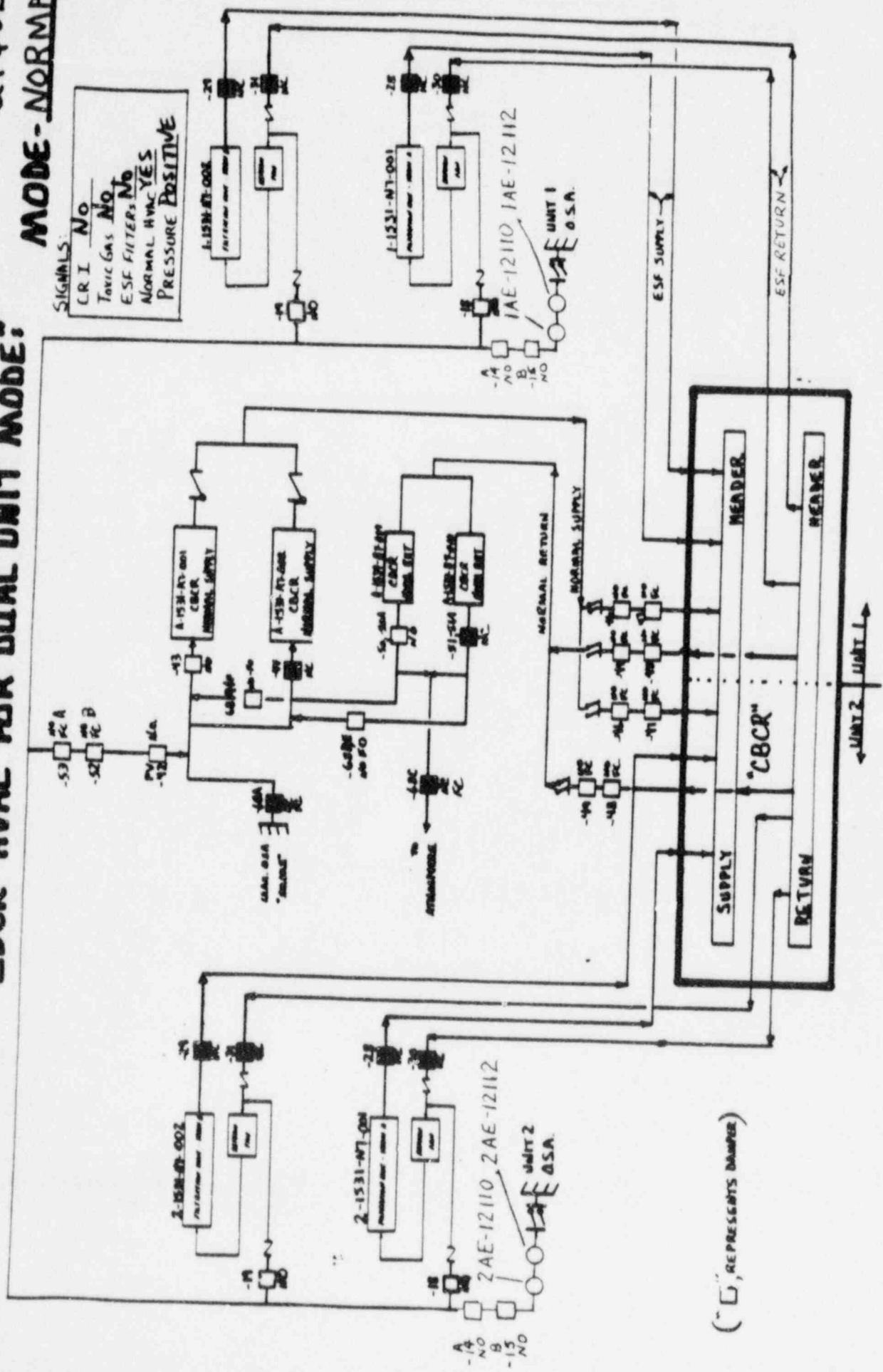
# "CBCR" HVAC FOR DUAL UNIT MODE:

U1 & U2

**MODE-NORMAL**

SIGNALS:

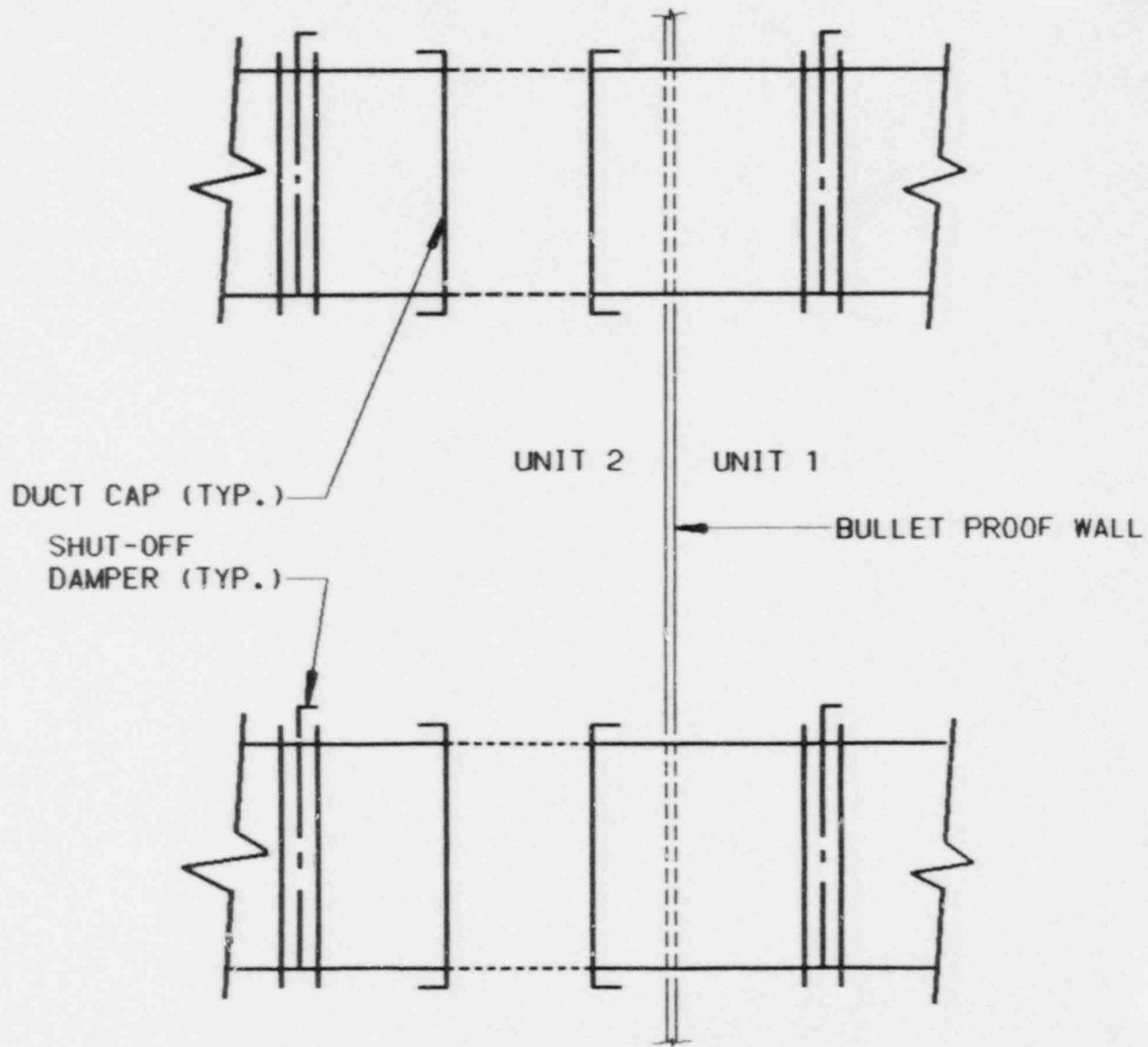
|             |          |
|-------------|----------|
| CRI         | NO       |
| Toxic Gas   | NO       |
| ESF FILTERS | NO       |
| NORMAL HVAC | YES      |
| PRESSURE    | POSITIVE |



(\* □, REPRESENTS DAMPER)

FIGURE 3

# CONTROL RM. HVAC DUCT PENETRATING TEMP. WALL



ENCLOSURE 3

PLANT VOGTLE - UNIT 1  
NRC DOCKET 50-424  
OPERATING LICENSE NPF-68  
REQUEST TO REVISE TECHNICAL SPECIFICATION 3/4.7.6  
INSTRUCTIONS FOR INCORPORATION

The proposed amendment to the Technical Specifications (Appendix A to Operating License NPF-68) would be incorporated as follows:

Remove Page

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Insert Page

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3/4 7-16