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AUTH. NAME      AUTHOR AFFILIATION

TUCKER, H.B.      Duke Power Co.

RECIP. NAME      RECIPIENT AFFILIATION

DENTON, H.R.      Office of Nuclear Reactor Regulation, Director

STOLZ, J.F.      Operating Reactors Branch 4

SUBJECT: Forwards supplemental info requested in NRC 821122 & 29  
telcons re standby shutdown facility. Fire in one fire zone  
will not cause loss of primary inventory.

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**DUKE POWER COMPANY**

P.O. BOX 33189  
CHARLOTTE, N.C. 28242

December 23, 1982

TELEPHONE  
(704) 373-4531

HAL B. TUCKER  
VICE PRESIDENT  
NUCLEAR PRODUCTION

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Attention: Mr. John F. Stolz, Chief  
Operating Reactors Branch No. 4

Subject: Oconee Nuclear Station  
Docket Nos. 50-269, -270, -287

Dear Sir:

By letter dated July 17, 1982, the NRC Staff provided a request for additional information based on review of Duke submittals regarding the Oconee Standby Shutdown Facility. My letter of September 20, 1982 provided a response to that request. Since that response, conference calls have been conducted on November 22, 1982 and November 29, 1982 between Duke Power and the Staff to further answer Staff questions. In response to requests made by the Staff in those conference calls, please find attached the requested supplemental information. Attachment 1 concerns spurious operation of valves due to fire and Attachment 2 concerns structural seismic response.

Very truly yours,

*H.B. Tucker /TSU*

Hal B. Tucker

JFN:scs

Attachments

cc: Mr. Victor Stello  
Deputy Executive Director for Regional  
Operations and Generic Requirements  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Mr. W. T. Orders  
NRC Resident Inspector  
Oconee Nuclear Station

Mr. J. P. O'Reilly, Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, Suite 3100  
Atlanta, Georgia 30303

Mr. Philip C. Wagner  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

*Acc Add: NRR/Fioravanti  
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OCONEE SER QUESTION 4-ADDENDUM TO OUR ANSWER

The following examples are provided to clarify our above stated position.

The Motor Control Centers for the primary boundary "Grey train" valves listed in our March 28, 1980 submittal are located in the Standby Shutdown Facility. Control for these valves can be from the Main Control Room during Normal plant operation or from the SSF Control Room during an SSF event. Transfer of the controls between the Main Control Room and the SSF Control Room takes place within the Standby Shutdown Facility. The "Yellow train" redundant valves are powered and controlled from the Main Control Room via the East Penetration Room into containment. Spurious operation due to a fire in any one fire zone can therefore be addressed as follows (Reference attached sketch for cable/fire zone clarification):

A. Valves HP3 (Letdown Cooler "A"), HP4 (Letdown Cooler "B"), HP20 (RCP Seal Return), RC4 (PORV Block), RC5 & RC6 (Press Stm & Wtr Sample), located in containment, receive power and control via cabling in the following manner. Power - from SSF Motor Control Centers via cabling to the West Penetration Room into containment.\* Normal power is from the incoming plant 4KV feeder and Emergency power is provided by the SSF Diesel Generator.

Control -

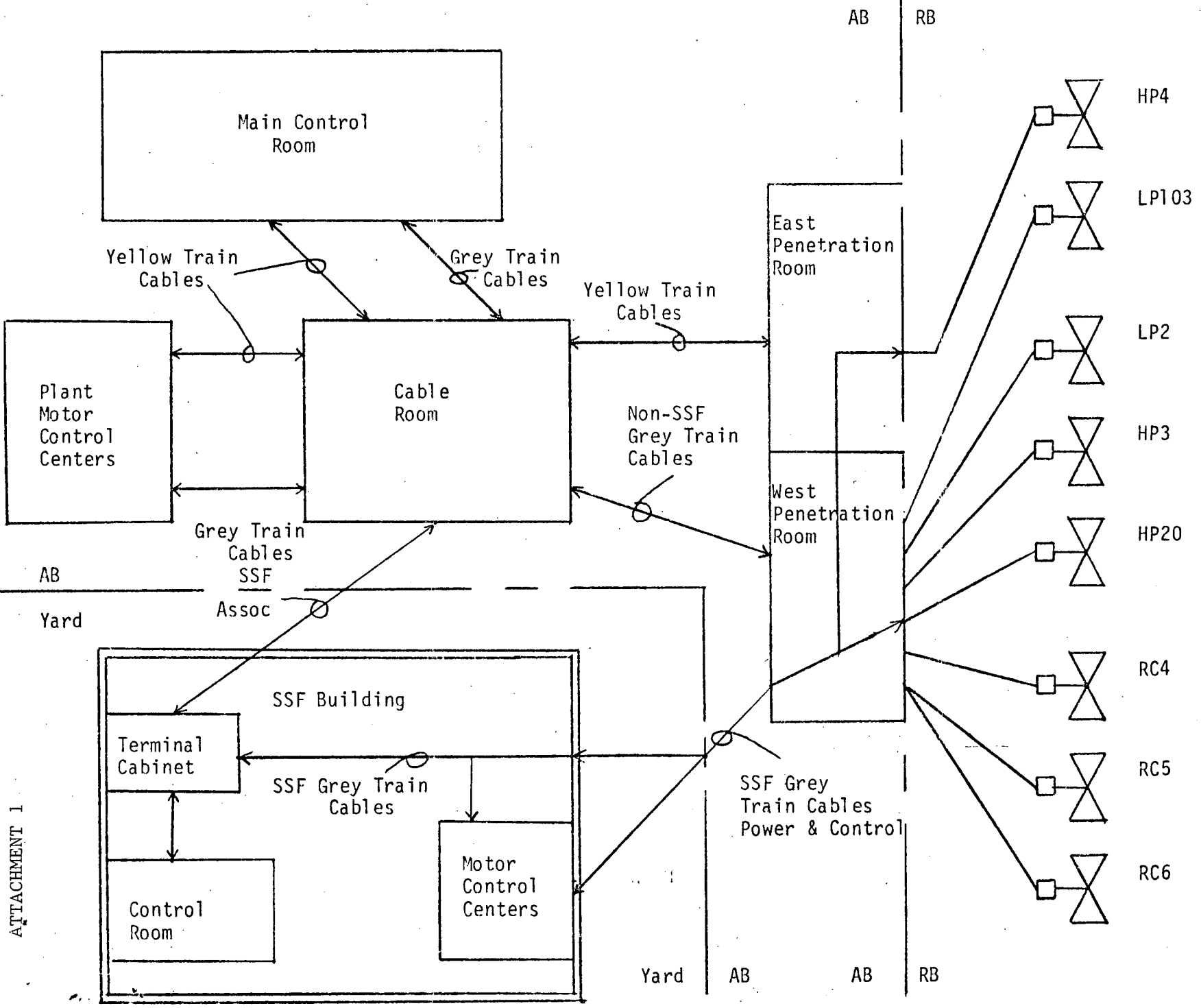
- a) from the Main Control Room, control is achieved via cabling to the cable room through the cable spreading room to the relay transfer cabinet in the SSF. From the transfer cabinet via the West Penetration Room into Containment.\*
- b) from the SSF Control Room, control is achieved via cabling to the relay transfer cabinet (this cabinet removes all control from the Main Control Room, transferring control to the SSF Control Room) through the West Penetration Room into containment.\*

\* HP4 Routes through the West Penetration Room via conduit to the East Penetration Room into Containment.

- B. Valve LP2 (Decay Heat) has its remote starter located in the SSF with a Reactor Coolant System pressure interlock cabled from containment via cabling to the West Penetration Room into the SSF. (Pressure interlock prevents opening of valve LP2 if RCS pressure is greater than 400 psig). Control cabling from the Main Control Room via the Cable Room into the SSF and the cabling for the pressure interlock are in the same fire zone where they become common in the SSF and the West Penetration Room.
- C. Valve LP103 (Alternate Decay Heat) has no Main Control Room controls; control is provided from the SSF Control Room only via cabling to the West Penetration into containment.
- D. The High Point Vent Valves (RC155, 156, 157 & 158), and the Reactor Head Vent Valves (RC159 & 160) have their power removed during normal plant operation or an SSF event.

Conclusion - A fire in any one fire zone will not cause a spurious operation that will cause a loss of primary inventory and disable the system necessary to provide makeup.

# SSF POWER & CONTROL CABLE ROUTING



ATTACHMENT 1

QUESTION 1:

How was the OBE considered and what damping ratio was used in the design of the SSF?

RESPONSE:

The design of the Oconee SSF envelopes all the loading combinations as stated in Table 2.5 of the SSF license submittal of March 28, 1980. The OBE was considered in loading combination 2 and was reviewed using a damping ratio of 4%.

QUESTION 2:

What is the boundary for application of the Standard Review Plan as mentioned in our response (dated 4/21/81) to Question 3 of the February 9, 1981 NRC request for additional information?

RESPONSE:

Section 2.1 of the March 28, 1980 license submittal describes the SSF facilities covered by the license submittal and limits the scope of the SSF to the concrete building. The cable trench which carries electrical cables from the SSF to each units' Auxiliary Building is designed in accordance with the criteria presented in Section 3.8.4 of the Oconee FSAR. The buried piping associated with the SSF is described in our response to Question 1 & 2 supplied by Mr W O Parker's letter to Mr Harold R Denton dated February 16, 1981 and response to Question 11 supplied by Mr H B Tucker's letter to Mr H R Denton, dated September 20, 1982.