

ORB#4-19

19

RECEIVED BY LMS

Date 5/16/78

Time 5:40 PM

By SC

From

Cy to

Action Compl.

☒ 5. This application has been reviewed and is exempt from fee  
 Cy to: R. Reid, DOR  
 Regulatory Docket Files indicated  
 LFMF Reachr. Files above  
 1-LFMF Exemption file 5/17/98  
 W.O. Miller 5/17/98  
 William O. Miller, Chief  
 License Fee Management Branch

William O. Miller, Chief  
License Fee Management Branch



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

April 26, 1978

Dockets Nos.: 50-269  
50-270  
and 50-287

Duke Power Company  
ATTN: Mr. William O. Parker, Jr.  
Vice President - Steam  
Production  
P. O. Box 2178  
422 South Church Street  
Charlotte, North Carolina 28242

Gentlemen:

The Commission has issued the enclosed Order for Modification of License which amends Facility Operating Licenses Nos. DPR-38, 47, and 55 for Oconee Nuclear Station Units Nos. 1, 2, and 3.

The Order specifies additional limits to the operating provisions of the licenses which require submission of a reevaluation of Emergency Core Cooling System cooling performance calculated in accordance with the Babcock & Wilcox evaluation model, and requires operation in accordance with procedures described in your letter dated April 21, 1978.

A copy of this Order is being filed with the Office of the Federal Register for publication.

Sincerely,

A handwritten signature in dark ink, reading "Robert W. Reid", is written over the typed name.

Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors

Enclosure:  
Order for Modification  
of License

cc w/enclosure: See next page

## Meeting Notice

### ✓ Pocket File

NRC PDR

Local PDR

TIC

LWR #2 File

NRR Reading

E. Case

D. Crutchfield

R. Boyd

R. C. DeYoung

D. B. Vassallo

D. Skovholt

R. Denise

F. J. Williams

J. Stolz

O. Parr

S. Varga

R. Clark

T. Speis

P. Collins

C. Heltemes

R. Houston

R. J. Mattson

H. Denton

ACRS (16)

L. Crocker

H. Berkow

Project Manager - R. Birkel

Attorney, ELD

IE (3)

SD (7)

J. Lee

Receptionist - Phillips

L. Rubenstein

R. Bosnak

W. Haass

J. Knight

D. Ross

R. Tedesco

S. Pawlicki

I. Sihweil

P. Check

T. Novak

Z. Rosztoczy

T. Ippolito

V. Benaroya

G. Lainas

F. Rosa

V. Moore

R. Vollmer

M. Ernst

W. Gammill

G. Knighton

B. Youngblood

W. Regan

D. Bunch

J. Collins

W. Kreger

R. Ballard

M. Spangler

J. Stepp

L. Hulman

H. Ornstein

L. Dreher

B. Faulkenberry, IE

OPA

Principal Staff Participants:

V. Stello

P. Matthews

W. Butler

R. Ferguson

D. Eisenhut

M. Fairtile

R. Reid

9



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

APR 13 1978

Docket Nos. 50-369/370  
and 50-269/270/287

MEMORANDUM FOR: Karl Kniel, Chief, Light Water Reactors Branch No. 2, DPM

FROM: Ralph A. Birkel, Project Manager, Light Water Reactors  
Branch No. 2, DPM

SUBJECT: FORTHCOMING MEETING WITH DUKE POWER COMPANY  
(McGuire Nuclear Station, Units 1 & 2)

DATE & TIME: Friday, April 14, 1978  
2:15 p.m.

LOCATION: Room P-422, Phillips Building  
Bethesda, Maryland

PURPOSE: Discussion of Duke Power Company's  
appeal to staff fire protection  
position for McGuire and Oconee cable  
spreading rooms.

Position of applicant and staff are  
enclosed.

PARTICIPANTS: DUKE POWER COMPANY  
(W. Owens, W. Parker, et al)

NRC - STAFF  
(V. Stello, R. Mattson, R. Boyd,  
R. Tedesco, V. Benaroya, P. Matthews,  
W. Butler, R. Ferguson, D. Eisenhut,  
D. Vassallo, K. Kniel, R. Birkel,  
M. Fairtile, R. Reid, et al)

*Ralph A. Birkel*

Ralph A. Birkel  
Light Water Reactors  
Branch No. 2  
Division of Project Management

Enclosure:  
Applicant/Staff Positions



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

Docket Nos. 50-369  
and 50-370

NOTE TO: Attendees  
Duke Power Company  
Appeal Meeting, Friday, April 14, 1978

Subject: Fire Suppression System  
McGuire/Oconee Cable  
Spreading Rooms

Enclosure No. 1 - Duke Power Company Position Statement  
Enclosure No. 2 - NRC Staff Requirements

DUKE POWER COMPANY  
FIRE PROTECTION SUPPRESSION SYSTEM  
NRC APFAL MEETING  
APRIL 14, 1978

M. Fair: 6  
NRC/DARR/DOE  
Operating Room  
Branch 4

SUMMARY OF DUKE POWER COMPANY POSITION

Duke Power Company has proposed to install a "Standby Shutdown System" at its Oconee and McGuire Nuclear Stations. These systems would be capable of bringing one or more units to a safe shutdown condition following postulated fires or sabotage scenarios. The SSS at each station would be redundant to normal installed plant equipment utilized for shutdown or accident mitigation. Further information on the SSS has been presented to the staff on January 18, 1978 (verbal) and February 1, 1978 (written) for Oconee and on March 23, 1978 (verbal) for McGuire. A formal submittal on the McGuire SSS is scheduled for May 1, 1978.

As redundant shutdown capability, the SSS at each station is protected from fires or sabotage such that no currently postulated event could cause the loss of both normal and SSS shutdown capability. The position has been expressed by the NRC staff, however, that a fixed automatic or manual fire suppression system should be provided in areas such as cable spreading rooms and equipment rooms.

Duke Power Company agrees that an adequate level of fire suppression capability should be provided throughout a station, even though redundant safe shutdown capability is provided. Such capability is demanded by good engineering practice, responsible management to minimize property loss potential, and recognition of the need for "defense in depth" to assure protection of public health and safety. It is considered, however, that adequate protection can be assured by providing suppression capability by other than fixed systems - e.g., portable extinguishers and installed hose stations in and near cable spreading rooms. This position is also considered to be consistent with the staff's position as expressed in Appendix A to BTP 9.5-1 which requires that when a dedicated shutdown system is utilized manual fire fighting capability to protect other safety-related systems is required.

The only valid basis, therefore, for a decision is cost versus benefit with regard to installing a suppression system in addition to manual capability. It is Duke Power Company's position that considering the existence of a standby shutdown system the incremental benefit of a fixed, versus non-fixed, suppression system is not greater than its associated cost. Otherwise, it appears that a Standby Shutdown System has little relative benefit from a fire protection perspective.

Staff Requirements

- 1.0 Minimum safe shutdown systems when one division of all safety systems is not available.
- 1.1 Following any fire, the plant can be brought to hot shutdown conditions using equipment and systems that are free of fire damage.
- 1.2 The plant should be capable of maintaining hot shutdown conditions for an extended time period significantly longer than 72 hours.
- 1.3 Fire damage to systems necessary to achieve and maintain cold shutdown conditions should be limited so that repairs can be made and cold shutdown conditions achieved within 72 hours.
- 1.4 Repair procedures for cold shutdown systems should be prepared now and material needed for such repairs should be on the site.
- 1.5 The hot shutdown condition must be achievable with power from the offsite power system, and upon its loss, with power from the onsite power system. A dedicated power supply may be substituted for the onsite power system.
- 1.6 The power needed to achieve the cold shutdown condition may be obtained from any one of the offsite power, onsite power, and dedicated power system.
- 1.7 When these minimum systems are provided their adequacy shall be verified by a thorough evaluation of:
  - a. Systems required for hot shutdown;
  - b. Systems required for cold shutdown;
  - c. Fire damage to power distribution systems; and
  - d. Interactions caused by fire damage to power and water supply systems and to supporting systems, i.e., component cooling water supply.
- 2.0 Minimum fire protection when dedicated or alternate shutdown systems are provided.
- 2.1 The fire protection systems in areas (such as cable spreading rooms) that contain cables for a large number of systems should consist of:
  - a. Fire detection system;
  - b. Hose stations; and
  - c. Fixed manual suppression system (gas or water)

NOTE: Consideration to preventing fire propagation via covered trays, fire retardant coating, barriers or blankets on a case-by-case basis.

- 2.2 Where access is difficult or impossible automatic systems should be provided.
- 2.3 Where modifications will not be implemented for an extended period, interim protection measures should be required to compensate for the lack of protection.



Docket Files

DISTRIBUTION  
See page 2

DOCKET NOS. 50-269, 50-270 and 50-287 DATE: FEBRUARY 2 1978

LICENSEE: Duke Power Company (DPC)

FACILITY: Oconee Nuclear Station

SUMMARY OF MEETING HELD ON JANUARY 18, 1978, TO DISCUSS A PROPOSED SAFE SHUTDOWN SYSTEM (SSS) FOR OCONEE

A meeting was held on January 18, 1978, for the purpose of allowing DPC to present a proposal to install a Safe Shutdown System at Oconee.

A list of attendees is attached.

Oconee Nuclear Station is currently being reviewed by the NRC in the areas of fire protection, physical security (10 CFR 73.55) and flooding of the turbine building. Each of these areas of review deal with the capability to safely shutdown the plant if the Oconee turbine building were lost or if the systems necessary to shut the plant down were compromised.

The proposed installation of the SSS would provide an independent shutdown capability for the Oconee Station and would resolve a common area of concern of the three separate reviews currently being performed.

Attached is a copy of the DPC proposal which describes the concept being considered.

Preliminary reaction by the staff to this proposed concept was favorable. DPC stated that the NRC approval of the concept is desired before design work begins. DPC will forward the proposal formally by letter on February 1, 1978, for NRC review.

The installation of the SSS would take 30 months from start to finish. DPC will provide interim measures to be taken regarding the three areas of review until the SSS is completed.

Original signed by

Don Neighbors, Project Manager  
Operating Reactors Branch #1  
Division of Operating Reactors

OFFICE ➤	DOR:ORB#1					
SURNAME ➤	DNeighbors:lb					
DATE ➤	2/2/78					

Meeting Summary for  
Duke Power Company

- 2 -

FEBRUARY 2 1978

Docket  
NRC PDR  
LOCAL PDR  
ORB#1 Reading  
NRR Reading  
E. G. Case  
V. Stello  
K. R. Goller  
D. Eisenhut  
A. Schwencer  
D. Davis  
G. Lear  
R. Reid  
L. Shao  
B. Grimes  
W. Butler  
R. Baer  
Project Manager  
Attorney, OELD  
OI&E(3)  
ACRS(16)  
Licensing Assistant  
Each NRC Participant  
Licensee  
T. B. Abernathy  
J. R. Buchanan



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

DOCKET NOS. 50-269, 50-270 and 50-287      DATE: FEBRUARY 2 1978

LICENSEE: Duke Power Company (DPC)

FACILITY: Oconee Nuclear Station

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The installation of the SSS would take 30 months from start to finish. DPC will provide interim measures to be taken regarding the three areas of review until the SSS is completed.

*Don Neighbors*  
Don Neighbors, Project Manager  
Operating Reactors Branch #1  
Division of Operating Reactors

LIST OF ATTENDEES  
AT MEETING ON  
JANUARY 18, 1978

NRC

D. Neighbors  
F. Jape  
J. Burdoin  
A. Schwencer  
W. Pasedag  
J. Knight  
E. Imbero  
P. Wagner  
S. MacKay

Rolf Jensen & Associates (NRC Consultant)

R. Herman

Duke Power Company

K. Canady  
T. Holland  
D. Holt  
T. McMeekin  
R. Dobson  
R. Priori  
J. Hendricks  
L. Dail  
J. Pope  
L. Summerlin  
C. Fring  
C. Wylie  
W. Foley

DUKE POWER/NRC MEETING  
JANUARY 18, 1978  
SAFE SHUTDOWN SYSTEM (SSS)

Our purpose in meeting today is to describe the Safe Shutdown System that we propose for utilization at Oconee Nuclear Station. The system would bring all or any combination of units, if necessary, to a shutdown condition in response to certain postulated accidents or sabotage scenarios. The system is not designed for emergency core cooling nor is it intended to be redundant to the ECCS equipment function. The system is one aspect of Oconee security systems; other aspects have been previously discussed with NRC.

The reason such a system is being proposed is that NRC criteria for security made it evident that for a plant the vintage of Oconee, the requirements for sabotage protection could not be economically or feasibly met. These requirements would have forced us to protect the Oconee Turbine Building from sabotage because the 4160 switchgear, emergency feedwater pump, and low pressure service water pumps are located in the Turbine Building. All of these are safety-related systems and provide either power to or cooling water for shutdown systems.

Secondly, it was recognized that Turbine Building flooding protection should be provided since a flood or break in a condenser circulating water system waterbox could disable the installed safety related equipment as well as the normal feedwater chain and possibly prevent an orderly reactor cooldown. In order to mitigate the consequences of flood,

we proposed a Turbine Building drain system to remove the water from the Turbine Buildings so that the accumulation would not impact on the safety-related equipment. However, a Safe Shutdown System can achieve our reactor cooling goals as well.

The Safe Shutdown System can also be used as a redundant shutdown system for fire protection and eliminate cable rerouting problems.

Duke had quickly recognized after the NRC site visits that an integrated solution was needed for all of these three issues. Task forces were in existence for fire protection and Turbine Building flooding. A task force for security was organized and all three efforts were integrated for the shutdown aspects. Consequently, a common solution was recognized and proposed to Duke management. Management agreed with the proposal and suggested an early meeting with NRC. Today, various members of those task forces will describe the Safe Shutdown System and its relation to security, Turbine Building flooding, and fire protection. The first presentation will describe the mechanical and electrical system design. Subsequent presentations will then develop the relationship to each of the problem areas and describe how the design satisfies our understanding of the various criteria established.

This charts shows the past history of Duke/NRC interaction on the three issues. The chart is primarily for background information for those who may not have been involved previously. The major milestone dates are underlined.

What we hope to accomplish in this meeting is: (a) understanding of the Safe Shutdown System, (b) the definition of the relationships of the Safe Shutdown System to the problem areas defined, and (c) recognition that Oconee Nuclear Station may be a unique situation and may require such a system where other plants do not.

What we need from you is agreement on the system concept and that the system concept solves the problems and satisfies the NRC criteria. When we have that agreement, we can begin the detailed design, construction, and procurement for the system.

Where we intend to go after today is to submit to you in the form of a supplement to the Security Plan, a design description of the Safe Shutdown System. This will be submitted by February 1, 1978.

Would you please hold questions until each speaker has completed his presentation?

DUKE POWER/NRC MEETING  
January 18, 1978  
Safe Shutdown System

- |  |                 |
|--|-----------------|
| 1. Introduction and Bases              | K. S. Canady    |
| 2. Safe Shutdown System Design         | T. C. McMeekin  |
| 3. System Relation to Security         | R. L. Dobson    |
| 4. Fire Protection Relation to System  | J. R. Hendricks |
| 5. Turbine Flooding Relation to System | R. B. Proiry    |
| 6. Conclusion and Schedule             | K. S. Canady    |



DUKE POWER/NRC MEETING  
January 18, 1978

Accomplish in January 18 meeting

Understanding of Safe Shutdown System

Definition of Fire Protection, Security and TB Monitoring to System

Unique Goose Situation

Need From NRC

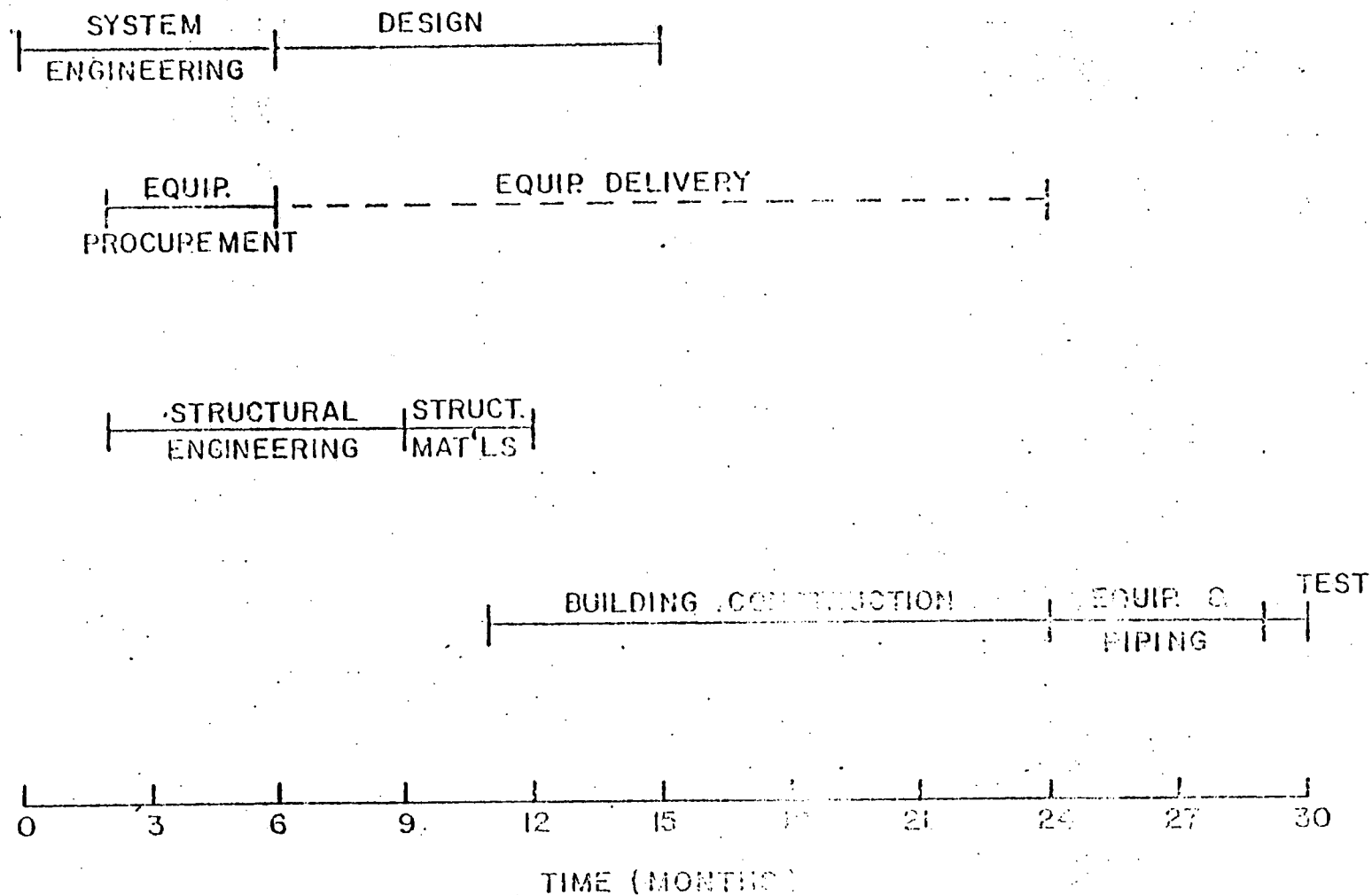
Agreement on System Concept

NRC Criteria Satisfied

Next Step

Provide Design Description

# SHUTDOWN FACILITY S. CAS



# NRC/Duke Interaction

## SECURITY

Feb. 24, 1977 New 10 CFR 73 reg.

March 16, 1977 Region II meeting

March 18, 1977 via Telephone 71-01 (Lock and Seals)

March 22, 1977 Region III meeting

April 27, 1977 NRC Summary report of workshop on sabotage NUREG 1144

May 15, 1977 WOP to Case Amended Security Plan

May 21, 1977 (To Ad Hoc Committee) W. Smith's instructions for amended security plan and proposed search schedule 5/18/77

May 25, 1977 (Informal) NRC physical search require.

August 10-19, 1977 Site Visit

August 19, 1977 Schwender to WOP, Plans access for personnel illumination, physical search

Sept. 19, 1977 Case to WOP decision for rulemaking physical search and security clearances

Sept. 29, 1977 WOP/77 Amend. (delay phy. search requirements till 3/24/78)

Oct. 25, 1977 Schwender to WOP "Guide for Eval. Phy. Security Capability"

Nov. 1, 1977 OIR 50 169/77-18

Nov. 24, 1977 Response to 77-18

Dec. 21, 1977 NRC to WOP add. corrective action for 77-18.

Nov. 21, 1977 Modified Amended Security Plan (2/1/78 next submittal)

Nov. 23, 1977 Case to WOP guidance on physical search

Dec. 21, 1977 Geller to WOP received Intrusion Detection Handbook

Jan. 13, 1978 NRC meeting

## PIRE

May 1, 1976 NRC to WOP compare DNS to Standard Review Plan 9.5-1; submit Tech Specs

June 15, 1976 WOP to Rusche info. requested will be submitted 1/3/77

Sept. 1976, 1977 Agreement A 75 DIT ADON 2 5-2 Geller to WOP

Dec. 1, 1976 Standard Tech Specs Schwender to WOP

Dec. 31, 1976 WOP to Rusche Fire Hazard Analysis (mode. by 7/1/77)

Jan. 1, 1977 Schwender to WOP proposed agenda for site visit

March 1, 1977 QA info. WOP to Rusche

March 1, 1977 Tech Specs submitted

June 17, 1977 NRC issued revised Sample Tech Specs.

June 17, 1977 Informal drawing submittal

July 18, 1977 2nd Tech Spec. submittal

August 19, 1977 Schwender to WOP Administrative controls

August 31, 1977 WOP to Case advised NRC of status of QA (Implement by 12/31/77)

October 1-7, 1977 Site Visit

Oct. 25, 1977 NRC minutes of site visit

Nov. 17, 1977 request for add. info. Schwender to WOP

Nov. 21, 1977 WOP to Case response to 11/20

Nov. 25, 1977 NRC proposed Tech Specs

Nov. 29, 1977 request for add. info. (informal) due 1/15/78

Dec. 15, 1977 formal request of quest. of 11/29

Dec. 15, 1977 response to 11/25 Tech Spec proposal

Jan. 16, 1978 response to question on Admin. control

Jan. 16, 1978 response to Dec. 15 question

Jan. 16, 1978 received informally additional question pertaining to response to Nov. 10 question

Jan. 19, 1978 NRC meeting

## TURBINE BUILDING FLOOD

September 26, 1972 R. C. DeYoung of NRC request for info on FSAR

January 29, 1973 response to 9/26 letter FSAR supplement 13 P. 13-1 (note of possibility of turbine bldg. flood)

January 29, 1973 Turbine bldg. partial flood

October 11, 1975 Epp at site to investigate

October 15, 1975 AD 157/75-13 Describing T.B. Flooding Incident

November 9, 1975 NRC meeting

November 19, 1975 Site Visit

April 21, 1977 WOP to Rusche advised NRC of approach to final resolution

May 5, 1977 Informal quest. from NRC

June 27, 1977 WOP to Case answers to 5/5 questions

July 29, 1977 WOP to Case mode. will be implemented until issues resolved; revised schedule will be submitted.

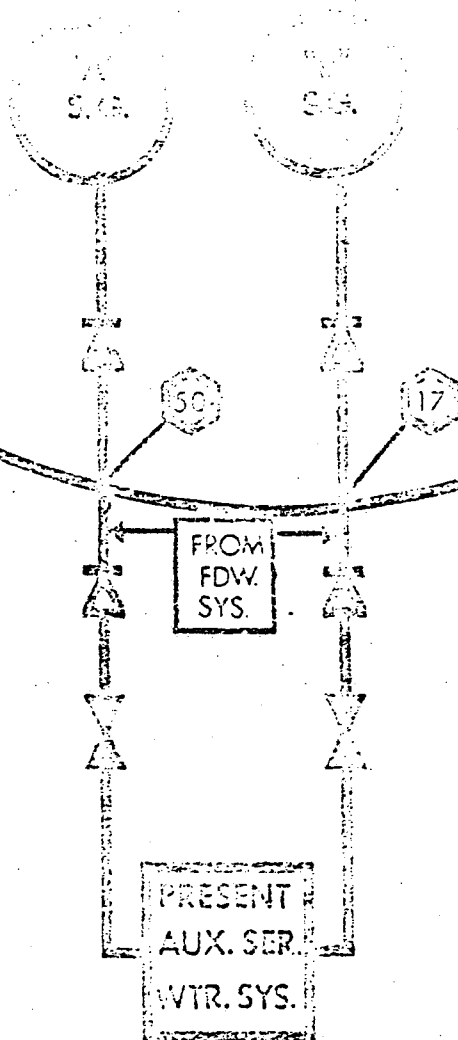
November 13, 1977 NRC request for add. info. (response due 1/15/78)

January 9, 1978 WOP to Case advise new concept in January 13 meeting

January 18, 1978 NRC meeting

- 1) MAINTAIN ADEQUATE PRIMARY SIDE COOLANT VOLUME
- 2) MAINTAIN ADEQUATE SECONDARY SIDE COOLANT VOLUME
- 3) UTILIZE PRIMARY SIDE NATURAL CIRCULATION
- 4) UTILIZE ATMOSPHERE AS HEAT SINK VIA SECONDARY SIDE STEAM RELIEF
- 5) PROVIDE SUPPORTING SERVICES, INSTRUMENTATION, POWER SUPPLY, ETC.

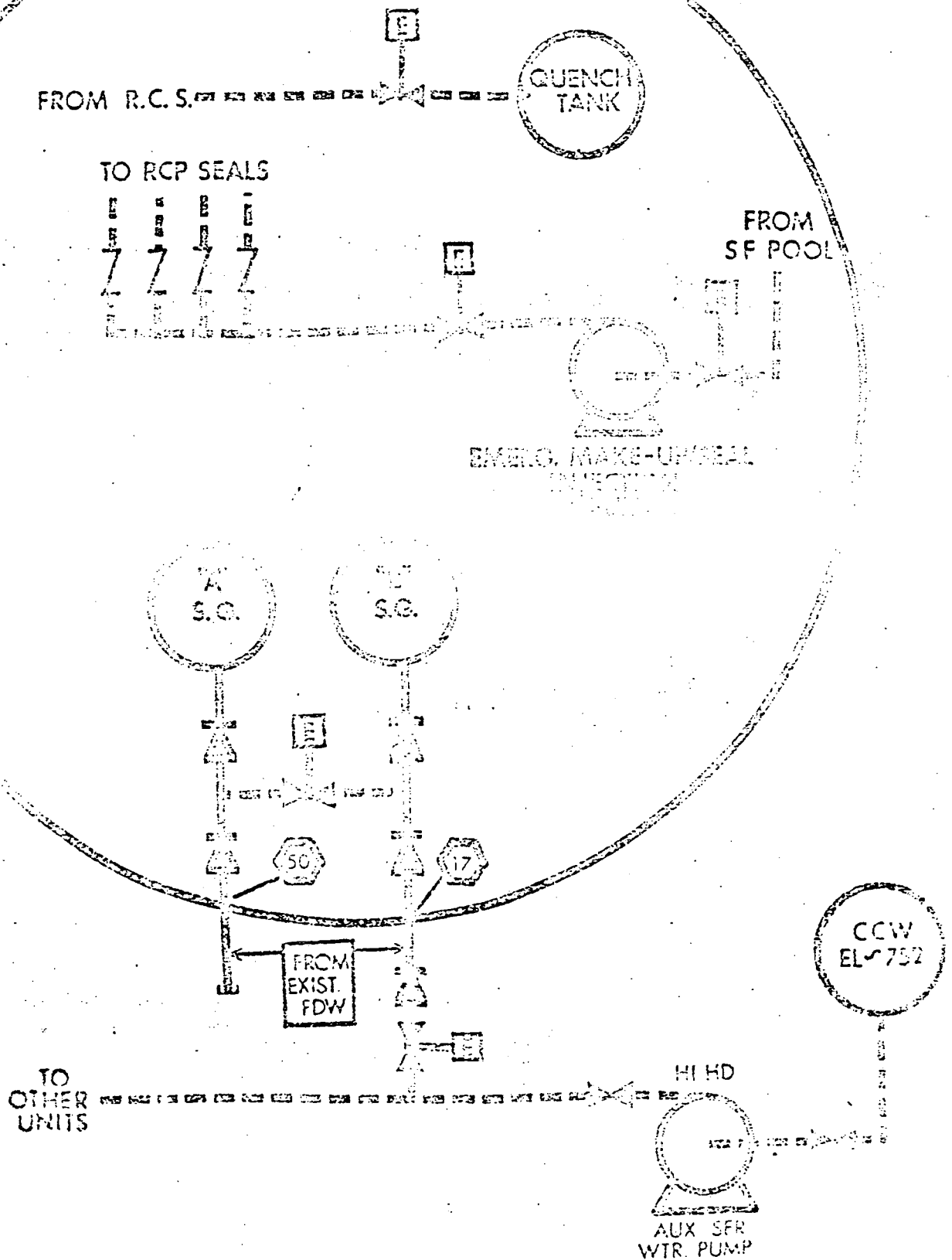
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SECURITY STUDY

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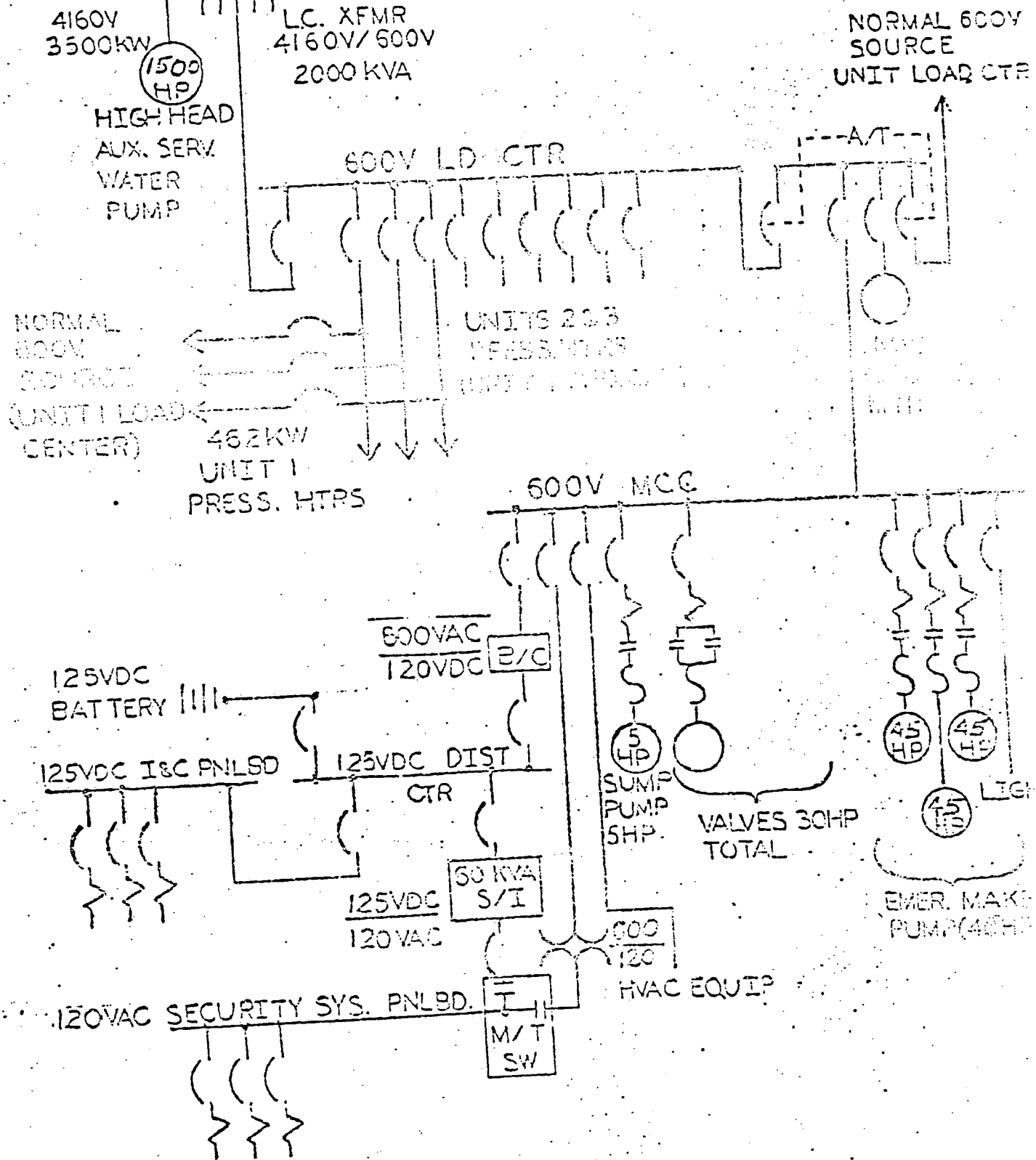
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OCONEE NUCLEAR STA.  
SECURITY STUDY

SUBJECT  
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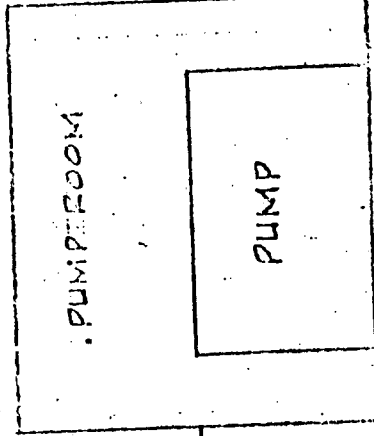
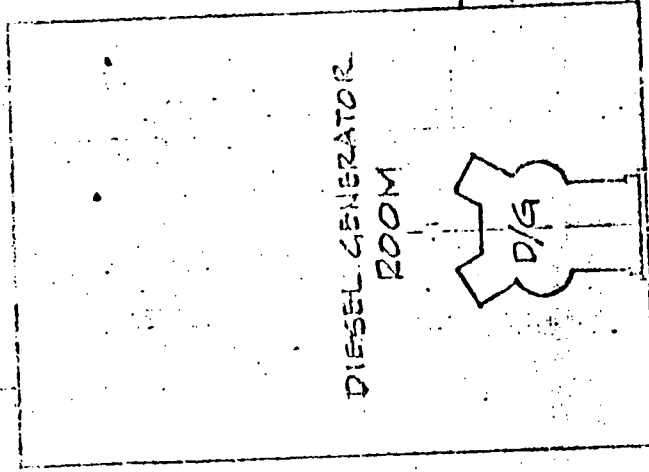
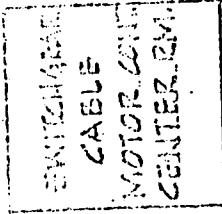
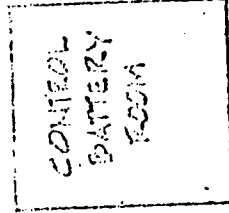
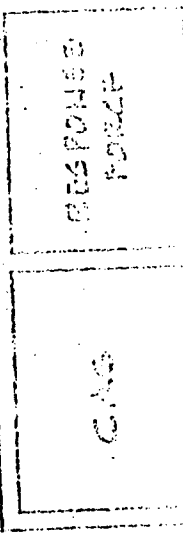
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ROOF EL 800 TO 7

EQUIPMENT

EL 79.50



TO STEAM GENERATOR

FROM CCW

OCONEE NUCLEAR STATION

SAFE SHUTDOWN FACILITY

DATE SCALE DRAWING NO.



<u>Component</u>	<u>Press</u>	<u>Flow</u>	<u>Rating</u>
High Head Auxiliary Service Water Pump	1050	2250	1500 HP
Emergency Makeup Pump	2250	35	45 HP
Diesel Generator			3500 KW

Time Limitations Without Damage Control Measures

Secondary Side Water	~ 3½ Days
Primary Side Water	~ 8 Days
Power Supply	~ 7 Days
Condensate Tank Venting	~ 1 Hour

Security History - 10 CFR 73.55

11/13/74	Proposed 10 CFR 73.55
02/24/77	Issue of 10 CFR 73.55
05/25/77	Amended security plan ssubmital
08/15/77	Site visit by NRC to Oconee Nuclear Station
11/21/77	Modified amended security plan submittal
01/18/78	Presentation to NRC

## Vital Equipment Functions

1. Maintain reactor coolant system integrity
2. Maintain fuel integrity
3. Achieve and maintain safe shutdown condition

"The license shall establish and maintain an onsite physical protection system and security organization which will provide protection with high assurance against successful industrial sabotage..."

from 10 CFR 73.55 (a)

"... it must be demonstrated that given initial detection, the onsite response force must be able to intercept and engage an adversary force in less time than is available for the adversary force to successfully penetrate any single or multiple vital area barriers such that disablement of equipment within those areas would lead to a significant release of radioactivity."

from NUREG 0220

"Interim Acceptance Criteria for a Physical Security Plan for Nuclear Power Plants"

Recommendation 1 - Systems whose disablement, destruction, or misoperation could cause a radioactive release, the control of which is critical to the prevention of the potential loss of public health and safety, shall be adequately protected by physical barriers, intrusion detection systems, and active response.

Recommendation 2 - Systems required to provide recovery from short-term transient incidents which could lead to a radioactive release should be adequately protected by physical barriers, intrusion detection systems, and active response.

from SAND 77-0116C

"Protection of Nuclear Power Plants  
Against Sabotage", Sandia Labs, Oct. 77

### Critical Plant Functions

An analysis was made by the workshop of the minimum plant functions which must be performed to prevent a severe radioactive release. These functions will be called critical plant functions and are summarized as follows:

- A. The spent fuel must be kept underwater.
- B. PWR - The reactor coolant loop must be maintained filled to a level in the pressurizer to assure natural convection core cooling. The steam generators must have secondary side cooling water available.
- C. Decay heat energy from the fuel must be transferred from the fuel to an ultimate heat sink, through one or more intermediate heat transfer systems.
- D. Reactivity must be controlled to limit fission heat generation within the reactor core.

from NUREG-0174  
Primary Point of Departure, Part 1 of 2  
Protection in Nuclear Power Plant Accidents  
Sandia Labs, Feb 1977

once Nuclear Station  
Vital Equipment

	<u>Containment</u>	<u>Spent Fuel Pool</u>	<u>Control Room</u>	<u>SSF</u>
1. Reactor Coolant System	X			
2. Control Boards			X	
3. Spent Fuel		X		
4. Emergency Makeup Pump	X			
5. High Head Auxiliary Service Water Pump				X
6. Diesel Generator				X
7. SSF Switchgear				X
8. SSF Battery				X
9. Shutdown Panel				X

FEBRUARY 2 1978

MEMORANDUM FOR: Files (Docket Nos. 50-269, 50-270 and 50-287)

FROM: Don Neighbors, Project Manager, Operating Reactors  
Branch #1SUBJECT: RECENT SEISMIC ACTIVITY IN THE OCONEE NUCLEAR STATION  
VICINITY

On January 3, 1978, Duke Power Company (DPC) informed NRC that seismic events had occurred in the Oconee - Jocassee Dam vicinity on three separate days which exceed a magnitude of 2.0, which is the threshold of reporting established by our letter dated May 20, 1977. A "no. of events" threshold of 100 per week was also established by that letter.

On the morning of January 6, 1978, DPC provided additional data which is shown below:

<u>Date</u>	<u>Number of Events</u>	<u>Magnitude of largest event</u>
December 29, 1977	2	very low
December 30, 1977	1	1.5
December 31, 1977	28	2.2
January 1, 1978	16	2.0
January 2, 1978	160	1.8
January 3, 1978	180	2.2
January 4, 1978	109	1.7
*January 5, 1978	94	1.7
**January 6, 1978	209	2.0
**January 7, 1978	179	2.0
**January 8, 1978	240	-
**January 9, 1978	9	0.1

The seismic activity reported above was recorded on portable micro-earthquake recorders which were moved to the general area of the activity after being picked up on the Jocassee Dam seismic network. The area in which the activity is occurring is near the Stamp Creek Church about 3-5 miles west of the Oconee Nuclear Station and about 7 miles south of Jocassee Dam. In addition to the events reported above, DPC stated that several events were felt in the area about 10:30 am on January 6, 1978, but no further data was available. No events were felt at the Oconee Nuclear Station.

\*Provided on afternoon of January 6, 1978

\*\*Provided on January 10, 1978

OFFICE PROVIDED ON JANUARY 11, 1978

SURNAME &gt;

DATE &gt;

Memo to Files

- 2 -

FEBRUARY 2 1978

The activity in the Stamp Creek Church area does not appear to be related to the Jocassee Lake or Dam.

DPC will provide a followup letter in about a week to 10 days summarizing these seismic events and providing an evaluation of the data.

Original signed by

Don Neighbors, Project Manager  
Operating Reactors Branch #1  
Division of Operating Reactors

cc: Local PDR  
NRC PDR

DISTRIBUTION  
Dockets  
ORB#1 Reading  
ASchwencer  
DNeighbors  
SMSheppard  
Subj. File  
KRGoller

OFFICE >	DOR:ORB#1					
SURNAME >	DNeighbors:lb					
DATE >	2/2/78					



JAN 5 1978

Letter 716  
SO-270

MEMORANDUM FOR: A. Schwencer, Chief, Operating Reactors Branch #1  
FROM: D. Neighbors  
SUBJECT: FORTHCOMING MEETING WITH DUKE POWER COMPANY  
(OCONEE NUCLEAR STATION)

Date and Time: Wednesday, January 18, 1978  
9:00 a.m.

Location: Phillips Building  
Room P-118  
Bethesda, Md.

Purpose: To discuss a proposal by DPC to install an independent  
shutdown facility at Oconee

Participants: NRC Duke Power Company  
D. Neighbors Ken Canady, et al  
F. Clemenson  
J. Burdoin  
H. George  
J. Knight  
W. Pasedag  
A. Schwencer

Original signed by

Don Neighbors, Project Manager  
Operating Reactors Branch #1  
Division of Operating Reactors

cc: See next page

OFFICE ➤	ORB-1				
SURNAME ➤	D. Neighbors				
DATE ➤	1/5/78				

Meeting Notice for  
Duke Power Company

- 2 -

January 5, 1978

Docket  
NRC PDR  
LOCAL PDR  
ORB#1 Reading  
NRR Reading  
E. G. Case  
V. Stello  
D. Eisenhut  
K. R. Goller  
A. Schwencer  
D. Davis  
G. Lear  
R. Reid  
L. Shao  
W. Butler  
B. Grimes  
R. Baer  
Project Manager  
Attorney, OELD  
OI&E (3)  
OSD (3)  
B. Faulkenberry, I&E  
E. L. Jordaon, I&E  
Licensing Assistant  
Receptionist, Bethesda  
Principal Staff Participants  
R. F. Fraley, ACRS (16)



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

JAN 5 1978

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Ken Canady, et al

*Don Neighbors*  
Don Neighbors, Project Manager  
Operating Reactors Branch #1  
Division of Operating Reactors

cc: See next page

Docket #16  
50-279

JAN 5 1978

MEMORANDUM FOR: A. Schwencer, Chief, Operating Reactors Branch #1

FROM: D. Neighbors

SUBJECT: FORTHCOMING MEETING WITH DUKE POWER COMPANY  
(OCONEE NUCLEAR STATION)

Date and Time: Friday, January 13, 1978  
10:30 a.m.

Location: Phillips Building  
P-110  
Bethesda, Md.

Purpose: To discuss the Oconee Nuclear Station Fire Protection  
Program

Participants: NRC

Duke Power Co.

D. Neighbors  
A. Schwencer  
T. Wambach  
H. George  
J. Knight  
W. Pasedag

Ken Canady, et al

Original signed by

Don Neighbors, Project Manager  
Operating Reactors Branch #1  
Division of Operating Reactors

cc: See next page

OFFICE >	ORB-1					
SURNAME >	DNeighbors					
DATE >	1/5/78					

Meeting Notice for  
Duke Power Company

- 2 -

January 5, 1978

Docket  
NRC PDR  
LOCAL PDR  
ORB#1 Reading  
NRR Reading  
E. G. Case  
V. Stello  
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*Don Neighbors*  
Don Neighbors, Project Manager  
Operating Reactors Branch #1  
Division of Operating Reactors

cc: See next page