→ Ocone 2

Docket No.(s) 50-313, 50-312, 50-269, 50-270 & 50-287

ORB#4-19

RECEIVED BY LFMB
Date 5/16/78
Time 2 P.M.
By SC
From
Cy to
Action Compl.

William O. Miller
License Fee Management Branch
Office of Administration

FACILITY AMENDMENT CLASSIFICATION

Applicant: Arkansas Power & Light Co., Sacramento Municipal Utility District & Duke Power Co.

License No.(s) DPR-51, 54, 38, 47 & 55 Mail Control No: See attached.

Application Dated: See attached. Fee Remitted; ___Yes _x_ No

Applicant's Fee Classification: Class__ I, __II, __III, __IV, __V, __VI, X None

Amendment No: Orders for Modif. of License Date of Issuance 4/21, 26 & 28/78 (See attached cys.)

☐ 1. This application has been reviewed by DOR/DPM in accordance with Section 170.22 of Part 170 and is properly categorized.

☐ 2. This application is incorrectly classified and should be properly categorized as Class____. Justification for reclassification: _____

☐ 3. Additional information is required to properly categorize the license amendment: _____

☒ 4. The application was filed (a)__ by a nonprofit educational institution, (b)__ by a Government agency, (c)__ pursuant to written NRC recommendations and the amendment will be issued for the convenience of the Commission, and (d) x Other (state reason therefor): _____

These Orders were issued pursuant to 10 CFR 2.204 and are not subject to fees.

for R. W. Reid 5/15/78
Division of Operating Reactors/Project Management

☑ 5. This application has been reviewed and is exempt from fees.

W. O. Miller 5/17/78
William O. Miller, Chief
License Fee Management Branch

cy to: R. Reid, DOR
Regulatory Docket Files, indicated
LFMB Reactor Files, above
1-LFMB Exemption file 5/17/78

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 licenseswhich 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,

Robert W. Reid

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

Docket 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 1 3 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

Enclosure No. 1

M. Fairtile
NRC/ONRR/DOR
Operating Reac
Branch 4

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

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.

Enclosure 2

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 7165

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					

NRC FORM 318 (9-76) NRCM 0240 ☆ U.S. GOVERNMENT PRINTING OFFICE: 1976 — 626-624

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

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

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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

FEBRUARY 2 1978

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 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 Scope of and Its Relating to System

Unique Oconee Situation

Need From NRC

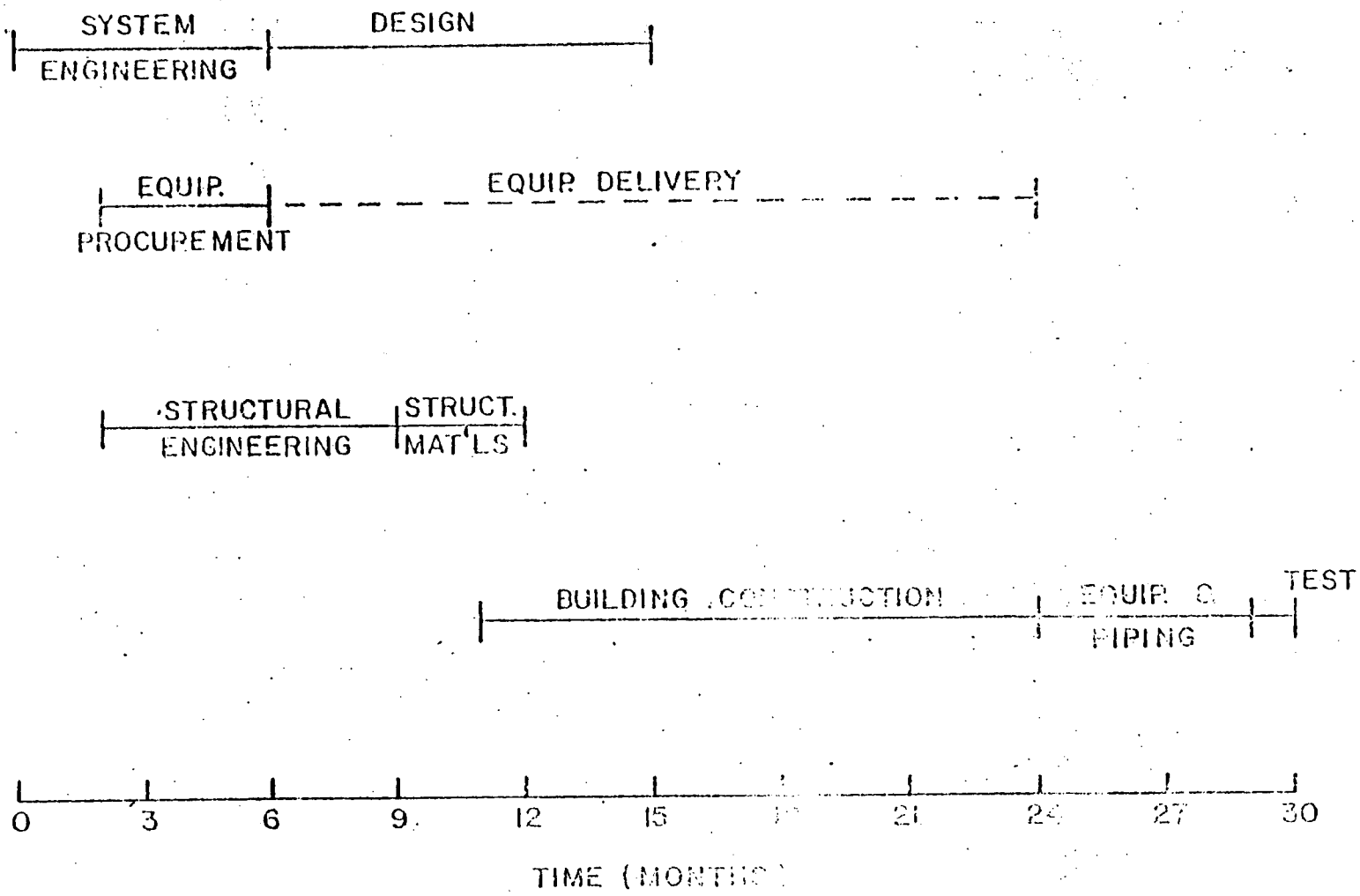
Agreement on System Concept

NRC Criteria Satisfied

Next Step

Provide Design Description

SHUTDOWN FACILITY & CAS



NRC/DUKE INTERACTION

SECURITY

Feb. 24, 1977	New 10 CFR 73 reg.
March 16, 1977	Region II meeting
March [illegible], 1977	IE Circular 77-0[illegible] (Lock capabilities)
March 22, 1977	Region III meeting
April 27, 1977	NRC Summary report of workshop on sabotage NUREG 0144
May 25, 1977	WOP to Case Amended Security Plan
May 2[illegible], 1977	(To Ad Hoc Committee) [illegible] [illegible] Plan
May 25, 1977	(informal) NRC physical search require.
August 15-19, 1977	Site Visit
August 19, 1977	Schwencer to WOP, Plans access for personnel illumination, physical search
Sept. 13, 1977	Case to WOP petition for rulemaking physical search and security clearances
Sept. 29, 1977	10CFR73 Amend. (delay phy. search requirements till 3/24/78)
Oct. 25, 1977	Schwencer to WOP "Guide for Eval. Phy. Security Capability
Nov. 1, 1977	OIE 50 369/77-18
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

FIRE

May 1, 1976	NRC to WOP compare ONS 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. [illegible], 1976	Appendix A to BTP APCSB 9.5-1 Geller to WOP
Dec. 1, 1976	Standard Tech Specs Schwencer to WOP
Dec. 31, 1976	WOP to Rusche Fire Hazards Analysis (mods. by 7/1/77)
Jan. 3, 1977	Schwencer 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	Schwencer to WOP Administrative controls
August 31, 1977	WOP to Case advised NRC of status of QA (implement by 12/31/77)
October 3-7, 1977	Site Visit
Oct. 25, 1977	NRC minutes of site visit
Nov. 10, 1977	request for add. info. Schwencer to WOP
Nov. 22, 1977	WOP to Case response to 11/10
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	recieved informally additional question pertaining to response to Nov. 10 question
Jan. 18, 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)
[illegible], 1975	Turbine bldg. partial flood
October 11, 1975	Insp at site to investigate
October 25, 1975	SO 287/75-13 describing T.B. flooding incident
November 9, 1976	NRC meeting
November 19, 1976	Site Visit
April [illegible], 1977	WOP to Rusche apprise 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 mods. will be implemented until issues resolved; revised schedule will be submitted.
November 18, 1977	NRC request for add. info. (response due 1/16/78)
January 9, 1978	WOP to Case advise new concept in January 18 meeting
January 18, 1978	NRC meeting

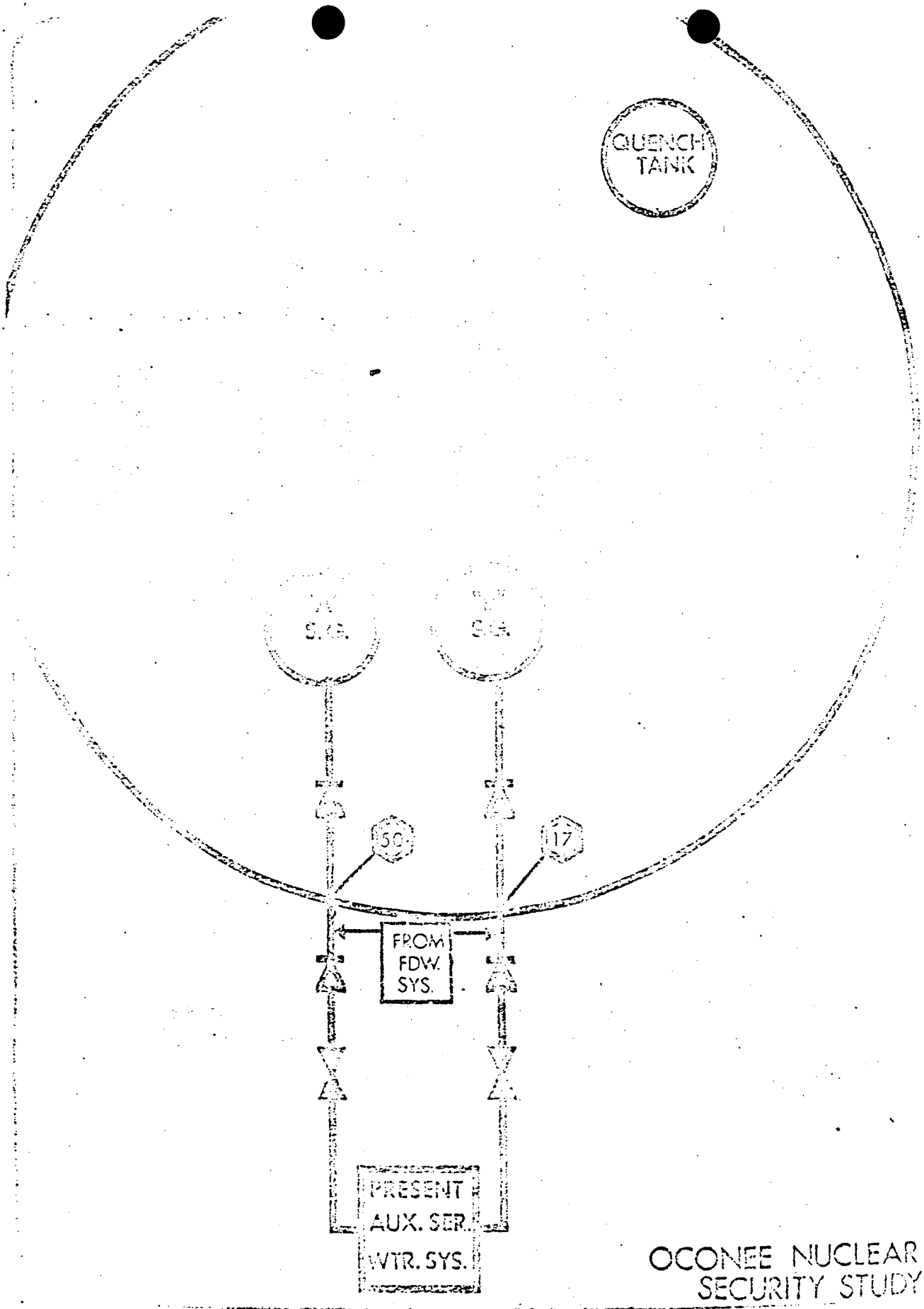
1) MAINTAIN ADEQUATE PRIMARY SIDE COOLANT VOLUME

2) MAINTAIN ADEQUATE SECONDARY SIDE COOLANT VOLUME

3) UTILIZE PRIMARY SIDE NATURAL CIRCULATION

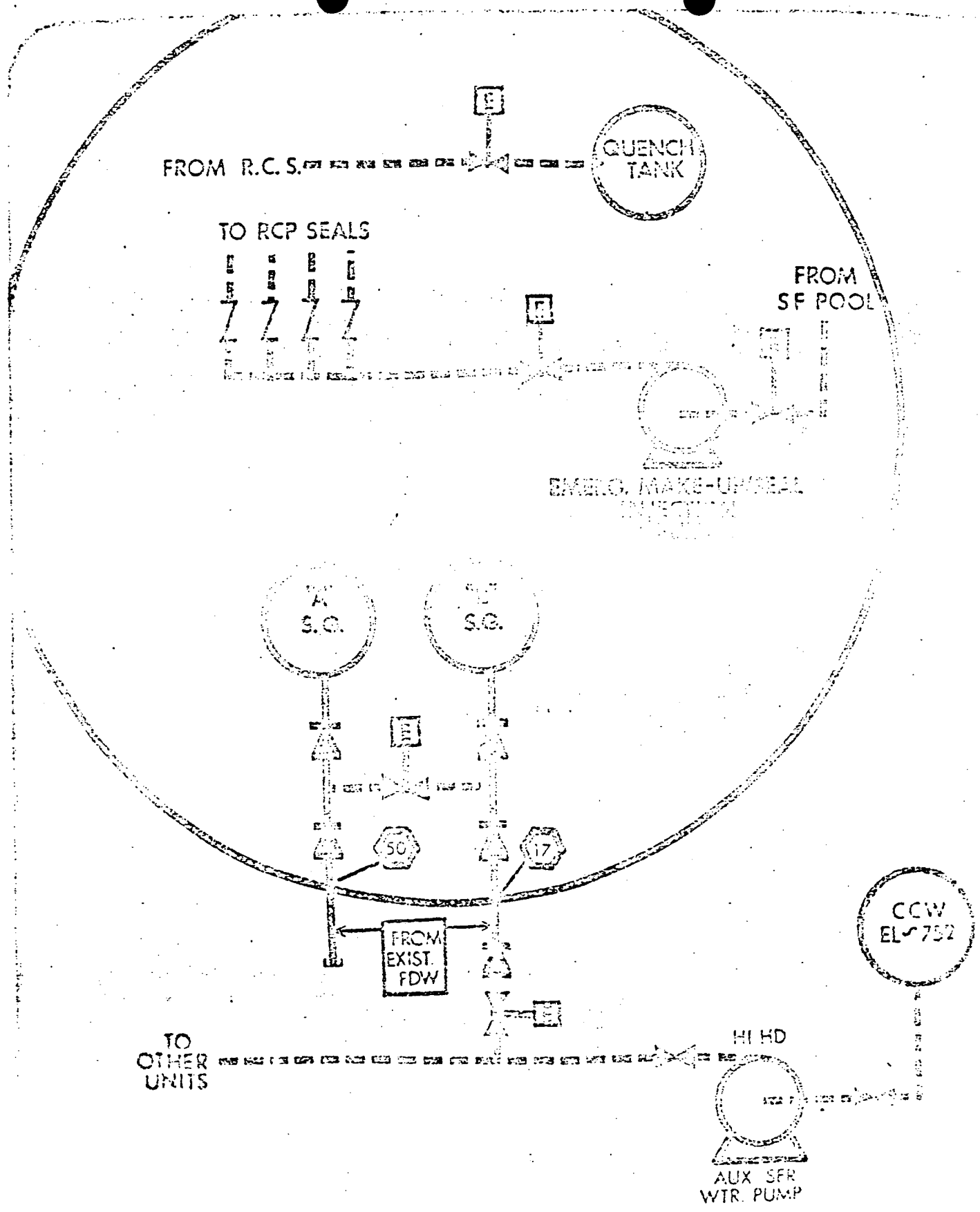
4) UTILIZE ATMOSPHERE AS HEAT SINK VIA SECONDARY SIDE STEAM RELIEF

5) PROVIDE SUPPORTING SERVICES, INSTRUMENTATION, POWER SUPPLY, ETC.



OCONEE NUCLEAR STA
SECURITY STUDY

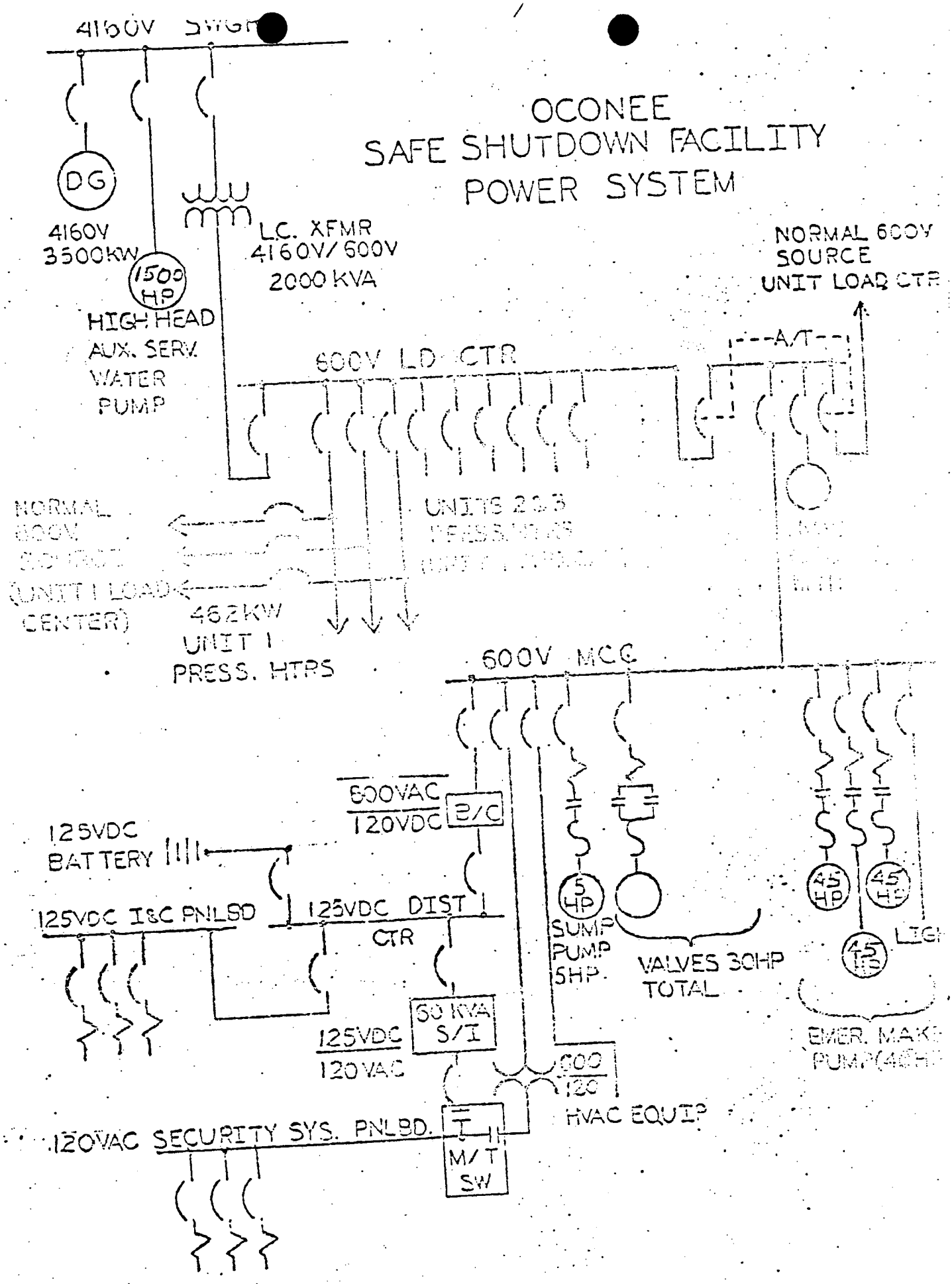
SUBJECT
NO.

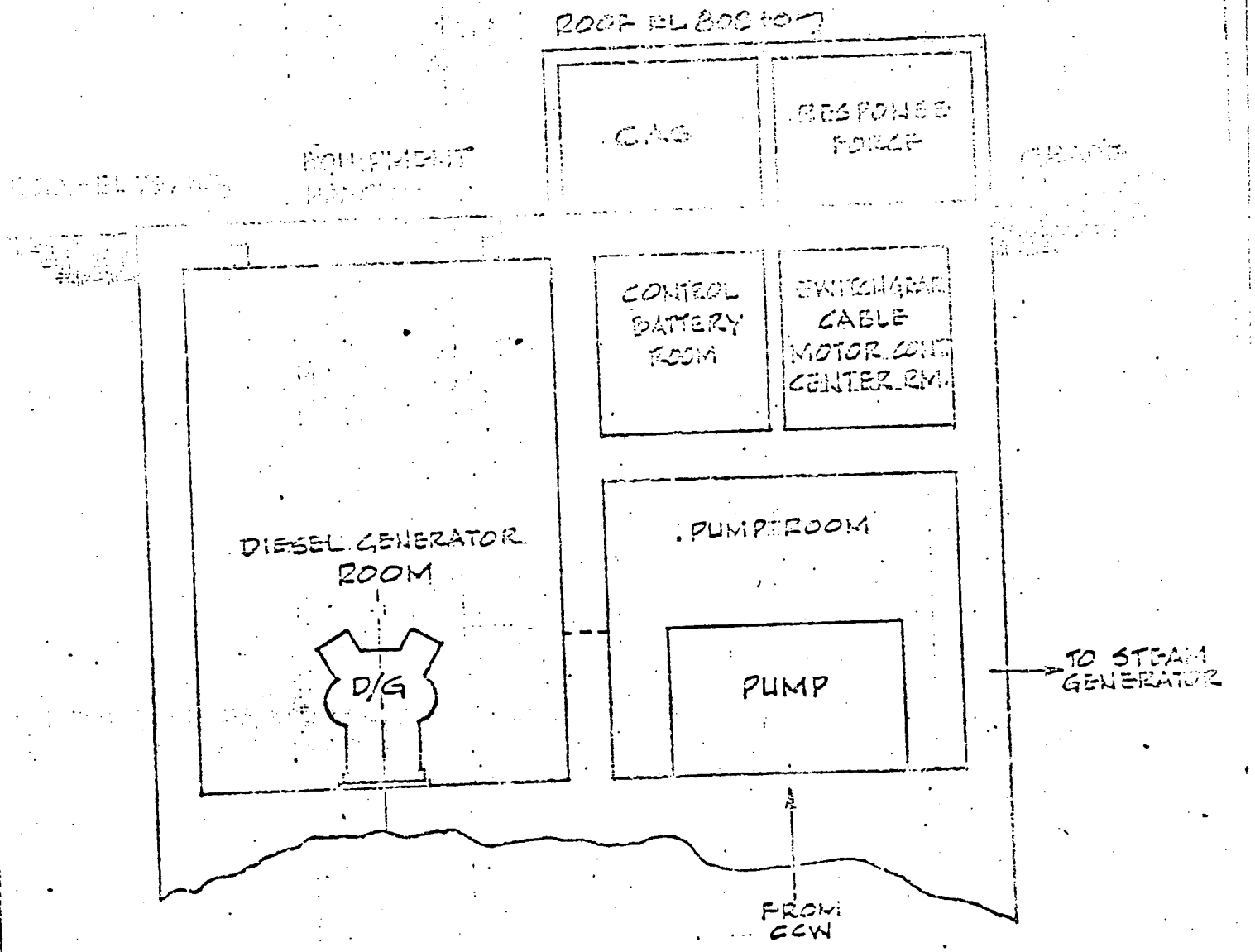


OCONEE NUCLEAR STA.
SECURITY STUDY

SUBJECT
NO.

OCONEE
SAFE SHUTDOWN FACILITY
POWER SYSTEM





OCONEE NUCLEAR STATION		
SAFE SHUTDOWN FACILITY		
DATE	SCALE	DRAWING NO.

Component	Press	Flow	Rating
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
[illegible]	[illegible]

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 ssubmittal
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 misuse could cause a radioactive release, [illegible] element, or the permanent loss of [illegible] should 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.

[illegible] - Diltz
[illegible]
Protection [illegible]
Sandia Labs, Feb 1977

...nee Nuclear Station
Vital Equipment

	Containment	Spent Fuel Pool	Control Room	SSF
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

Docket Files

FEBRUARY 2 1978

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

FROM: Don Neighbors, Project Manager, Operating Reactors Branch #1

SUBJECT: 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 vinicity on three separate days which exceed a magnitude of 2.0, which is the threshhold of reporting established by our letter dated May 20, 1977. A "no. of events" threshhold 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:

Date	Number of Events	Magnitude of largest event
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
***Provided on January 11, 1978

OFFICE➤					
SURNAME➤					
DATE➤					

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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

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Docket 7-6
50-270

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: 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	
M. 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	DNeighbors					
DATE	1/5/78					

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Project Manager
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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

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

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W. Pasedag	
A. Schwencer	

Don Neighbors

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

cc: See next page

Docket 216
50-277

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	Ken Canady, et al
A. Schwencer	
T. Wambach	
H. George	
J. Knight	
W. Pasedag	

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					

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R. Reid
L. Shao
W. Butler
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OSD (3)
B. Faulkenberry, I&E
E. L. Jordaon, I&E
Licensing Assistant
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WASHINGTON, D. C. 20555

JAN 5 1978

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

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J. Knight	
W. Pasedag	

Don Neighbors

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

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