

SHIFT MANNING

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SHIFT MANNING

1.0 OBJECTIVES

- 1.1 This instruction describes the manpower requirements used to schedule operating crews, and the tracking thereof. | 0-2
- 1.2 This instruction delineates the movement of key personnel while on duty at the site.

2.0 REFERENCES

2.1 Licensing Commitments

- 2.1.1 Technical Specifications
- 2.1.2 NUREG-0737, "Post TMI Requirements", I.A.1.3
- 2.1.3 Reg. Guide 1.114, "Guidance on Being Operator at the Controls of a Nuclear Power Plant"
- 2.1.4 10 CFR 50, "Licensed Operator Staffing at Nuclear Power Units"
- 2.1.5 10 CFR 50 Appendix R, Section III.G | TCN
- 2.1.6 10 CFR 55, "Operators' Licenses" | 0-2

2.2 Procedure

- 2.2.1 S0123-VI-0.9, "Documents-Authors Guide to Preparation of Site orders, Procedures, and Instructions" | 0-2 DELETED

2.3 Operating Instructions

- 2.3.1 S0123-0-8, "Operations Refueling Supervisor's Responsibilities and Duties"
- 2.3.3 S0123-0-31, "Assignment of Overtime" (when issued)
- .1 S01-12-23, "Assignment of Overtime"
- .2 S023-0-30, "Assignment and Approval of Operations Overtime"

2.4 Other | 0-2 DELETED

- 2.4.1 ANSI/ANS 3.1 - 1981, "Selection and Training of Personnel for Nuclear Power Plants" | 0-2
- 2.4.2 NRC I&E Circular 80-21, "Regulation of Refueling Crews"
- 2.4.3 NRC I&E Circular No. 81-02, "Performance of NRC Licensed Individuals While on Duty"

3.0 PREREQUISITES

- 3.1 Prior to use of a user-controlled (pink) copy of this Site Document to perform work, verify that it is current by checking a controlled copy and any TCNs or by use of the method described in SO123-VI-0.9.
- 3.2 In order to operate or supervise the operation of more than one unit, an operator (SRO or RO) must hold an appropriate, active license for each unit.

4.0 PRECAUTION(S)

- 4.1 None

5.0 CHECKLIST(S)

- 5.1 None

6.0 PROCEDURE

6.1 Minimum Shift Manning

6.1.1 Minimum Shift Manning requirements are delineated in Attachment 2 (Unit 1) and Attachment 3 (Units 2 and 3).

.1 Except for the SRO Operators Supervisor (person holding the Control Room Command Function, Unit 1), the shift crew composition may be one less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements. This provision does not permit any shift crew position to be unmanned upon shift change due to an oncoming shift-crewman being late or absent. (Reference 2.1.1)

.2 For Unit 1 at least two licensed operators (1SRO, 1RO) shall be in the Control Room Area, with one at the controls, during Mode 2 (Unit startup, scheduled Unit shutdown and during recovery from a Unit trip).

.3 For Units 2 and 3, in addition to the minimum shift manning, per Attachment 3, requirements, two additional licensed reactor operators (RO) and two additional auxiliary operators (AO) shall be on site at all times and available to meet Alternative Shutdown manning requirements. One of the licensed reactor operators identified above shall be available to serve as a relief operator for the Control Room. (References 2.1.4 and 2.1.5)

6.1.2 Shift crew assignments during periods of core alterations, shall include an additional licensed Senior Reactor Operator (SRO) to directly supervise the core alteration from the refueling deck inside containment. (References 2.1.1 and 2.3.1)

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TCN

6.0 PROCEDURE (Continued)

6.1.3 An ACO should function as the Fire Department's Technical Advisor. This position shall be filled by a licensed individual or other operator with similar plant knowledge. The Common ACO should fill this position at Units 2 and 3.

6.2 Normal Shift Manning

6.2.1 The Scheduling Supervisor shall ensure the following:

- .1 Only active licensed individuals (see Attachment 1 for definition) are assigned to those watch stations specified by the Technical Specifications as RO or SRO.
- .1.2 Tracking of active license status is performed quarterly per Attachment 7.
- .2 Prior to standing a Technical Specification licensed position, any on-shift operator holding an active license, who is absent from work due to illness for five (5) or more consecutive scheduled shifts obtain a release from the Edison Medical Department evaluating the operator's ability to perform licensed duties.

6.2.2 The normal Shift Manning requirements for each unit with fuel in the reactor are delineated on Attachment 4.

- .1 All shift command functions shall follow the chain of command delineated in Attachment 4. Licensed Operator direction shall only be taken from the designated On-shift Shift Superintendent via the Control Room Supervisor.

6.2.3 Auxiliary (non-licensed) operators shall be properly qualified to support the Unit to which assigned. (Reference 2.4.1)

6.2.4 Overtime assignment to fulfill shift manning requirements shall be implemented per Reference 2.3.3.

6.3 Control Room Command Function (see Attachment 1 for Definition) | 0-1

6.3.1 Whenever there is fuel in the unit, a licensed operator shall be designated to hold the Control Room Command Function for the associated unit. (References 2.1.1 and 2.1.2)

- .1 Any SRO holding the Control Room Command Function shall be an SRO Operations Supervisor (see Attachment 1 for Definition). | 0-1

6.0 PROCEDURE (Continued)

6.4 Movements of Key Shift Personnel About the Plant

6.4.1 **Shift Superintendent:** During operating Modes 1-4, the Shift Superintendent shall remain within the protected area of the plant except as follows:

- .1 Fire or other emergencies occurring on site, but outside the protected area requiring assessment of impact on continued operations by the Shift Superintendent;
- .2 Brief visits to the A.W.S. building for conduct of business.

NOTE: The Shift Superintendent shall carry a two-way radio with him at all times while outside the Control Room Area (Attachment 6).

6.4.2 **SRO Operations Supervisor holding the Control Room Command Function:** During operating Modes 1-4, this SRO Operations Supervisor shall remain in the Control Room Area unless relieved by a qualified individual holding a valid SRO license. (Reference 2.1.1)

6.4.3 **Unit Control Operators,** unless relieved by a licensed operator, shall remain in the designated area of the Control Room per Attachment 5. (Reference 2.1.3.)

6.4.4 **Unit Assistant Control Operator** should remain in the Control Room Area, (Attachment 6), when not performing duties elsewhere.

6.4.5 **Plant Equipment operators** normally spend their tour of duty outside the Control Room Area. However, they should not leave the plant protected area without notifying the cognizant Control Operator.

6.4.6 **Operations Refueling Supervisor** shall remain on the refueling deck in containment in areas where he can observe and direct refueling activities, monitor the audio count rate, and maintain direct communication with the Licensed Operator in the Control Room monitoring reactivity (count rate).

6.5 Individuals Qualified to Relieve the Shift Superintendent

6.5.1 For the purpose of compliance with shift manning requirements of the Facility License and Technical Specifications, the Shift Superintendent shall be held only by qualified individuals who hold valid SRO licenses.

6.0 PROCEDURE (Continued)

- 6.5.1.1 Normally these individuals are classified as Shift Superintendent, Control Room Supervisor upgraded to Shift Superintendent or higher management classifications such as the Plant Superintendent, Assistant Plant Superintendent, or the Supervisor of Coordination.
- .2 Whoever fills the Shift Superintendent requirement for the purpose of meeting the shift requirements shall be designated as the On-Shift Shift Superintendent.

6.6 Operator Response for Trips/Transients

NOTE: Any Operations personnel outside the Control Room Area should, upon becoming aware of a plant transient, contact the Control Room for direction.

- 6.6.1 For Unit 1, in the event of a trip/transient the following "Board Stations" should be taken:
- .1 Shift Superintendent - Overview/Emergency Coordinator
  - .2 Control Room Supervisor - Implement AOI/EOI and direct activities
  - .3 Control Operator - Primary and electrical boards
  - .4 Assistant Control Operator - Secondary boards, non-essential loads, turbine generator shutdown, and Emergency Plan Implementing Procedure (EPIP) duties (Operations Leader and Event Classification Assistance)
  - .5 Plant Equipment Operators - Contact Control Room
  - .6 Nuclear Operations Assistant - Assist Shift Superintendent in EPIP's.
- 6.6.2 For Units 2/3, in the event of a trip/transient the following "Board Stations" should be taken:
- .1 Shift Superintendent - Overview/Emergency Coordinator
  - .2 Control Room Supervisor - Implement AOI/EOI and direct activities
  - .3 Control Operator - Primary boards
  - .4 Assistant Control Operator - Secondary boards

6.0 PROCEDURE (Continued)

- 6.6.2.5 Common Control Operator/Common Assistant Control Operator - Vital auxiliaries, non-essential loads, radiation monitors, turbine generator shutdown, and EPIP duties (Operations Leader and Event Classification Assistance)
- .6 Plant Equipment Operators/Nuclear Operations Assistant - If not involved in Emergency Duties, assemble in the Control Room, behind the PMS.

6.7 Units 2 and 3 Dual Unit Operations

- 6.7.1 During emergency conditions the following command guidelines will be implemented:
  - .1 For any event, the Shift Superintendent will assume overall responsibility for the operation of both units, including implementation of the SCE Emergency Plan as necessary.
  - .2 If only one unit is affected, the SRO Operations Supervisor holding the Control Room Command Function will assume primary responsibility for directing the operators in the implementation of Emergency Operating Instructions.
  - .3 If both units are affected and only one SRO Operations Supervisor is in the Control Room, the Shift Superintendent, while maintaining overall responsibility for both units, will assume the primary responsibility for directing operations on one unit. The remaining SRO Operations Supervisor will assume primary responsibility for directing operations on the other unit.

6.8 Shift Manning Schedules

- 6.8.1 The Scheduling Supervisor should ensure the following:
  - .1 Previous shift manning schedules are retained for a minimum of six (6) years. (The Unit Control Operator's Logs may be used to satisfy this).
  - .2 Attachment 8 is provided to Compliance upon request.

6.9 Notifications

- 6.9.1 The Scheduling Supervisor shall ensure the Compliance Division is notified of the following in order for Compliance to make a 30 day report to the NRC. (This applies to licensed operators only).
  - .1 Conviction of a felony;

6.0 PROCEDURE (Continued)

- 6.9.1.2 Permanent reassignment from the Operations Division;
- .3 Termination or resignation;
- .4 Disability or illness which could affect license status or performance (coordination with the Medical Department is required).

7.0 RECORD(S)

- 7.1 The Scheduling Supervisor should retain previous shift manning schedules for a minimum of six (6) years.
- 7.2 The Scheduling Supervisor should retain copies of completed Attachment 7 as needed to man the shifts for the upcoming quarter.
- 7.3 The Scheduling Supervisor should retain completed copies of Attachment 8.

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DEFINITIONS

1. Active Licensed Individual

An individual who presently holds a RO or SRO license, and during the previous quarter stood a minimum of seven 8 hour, or five 12 hour shifts in a Technical Specification position for which the individual is licensed.

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2. Control Room Command Function

The command responsibilities of the SRO officially stationed in the Control Room Area on a specified Unit. The Shift Superintendent shall be responsible for the Control Room Command Function; however, This function is normally delegated to the Control Room Supervisor assigned to the unit.

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3. SRO Operations Supervisor

A licensed SRO qualified to fulfill the Control Room Command function on the assigned Unit. Normally this function is fulfilled by the Control Room Supervisor assigned to the Unit, but may also be fulfilled by the other Control Room Supervisor on duty (Unit 2/3 only), the Shift Superintendent, or any individual qualified to relieve the Shift Superintendent.

MINIMUM OPERATIONS SHIFT CREW COMPOSITION - UNIT 1

POSITION	NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION	
	MODES 1, 2, 3, & 4	MODES 5 & 6
SS	1	1
CRS	1	NONE REQUIRED (a)
RO	2	1
NPEO	2	1

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(a) In addition to the staffing requirements indicated in the table, a licensed Senior Reactor Operator will be required to directly supervise any core alterations activity.

MINIMUM OPERATIONS SHIFT CREW COMPOSITION - UNITS 2 AND 3

As delineated by Technical Specification 6.2.2.

WITH OTHER UNIT in MODE 5 OR 6 OR DEFUELED

POSITION	NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION	
	MODES 1, 2, 3, & 4	MODES 5 & 6
SS	1(a)	1(a), (c), (d)
SRO	1	None
RO	2	1
AO	2	2(b)

WITH OTHER UNIT IN MODES 1, 2, 3, OR 4

POSITION	NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION	
	MODES 1, 2, 3, & 4	MODES 5 & 6
SS	1(a)	1(a), (c), (d)
SRO	1 (a)	None
RQ	2 (b)	1
AO	2(b)	1

(a) Individual may fill the same position on both units.

MINIMUM OPERATIONS SHIFT CREW COMPOSITION - UNITS 2 AND 3  
(Continued)

(b) One of the two required individuals may fill the same position on both units.

- SS - Shift Superintendent with a Senior Reactor Operator's License on Units 2 and 3
- SRO - Individual with a Senior Reactor Operator's License on Units 2 and 3
- RO - Individual with a Reactor Operator's License on Units 2 and 3
- AO - Auxiliary Operator

(c) During any absence of the SRO Operations Supervisor from the Control Room Area while the unit is in Mode 5 or 6, an individual with a valid SRO or RO license shall be designated to assume the Control Room Command Function. | 0-1

(d) In addition to the staffing requirements indicated in the table, a licensed Senior Reactor Operator will be required to directly supervise any core alterations activity.

NORMAL OPERATIONS SHIFT MANNING

UNIT 1  
CHAIN OF COMMAND

SHIFT  
SUPERINTENDENT  
(SRO)

CONTROL ROOM  
SUPERVISOR  
(SRO)

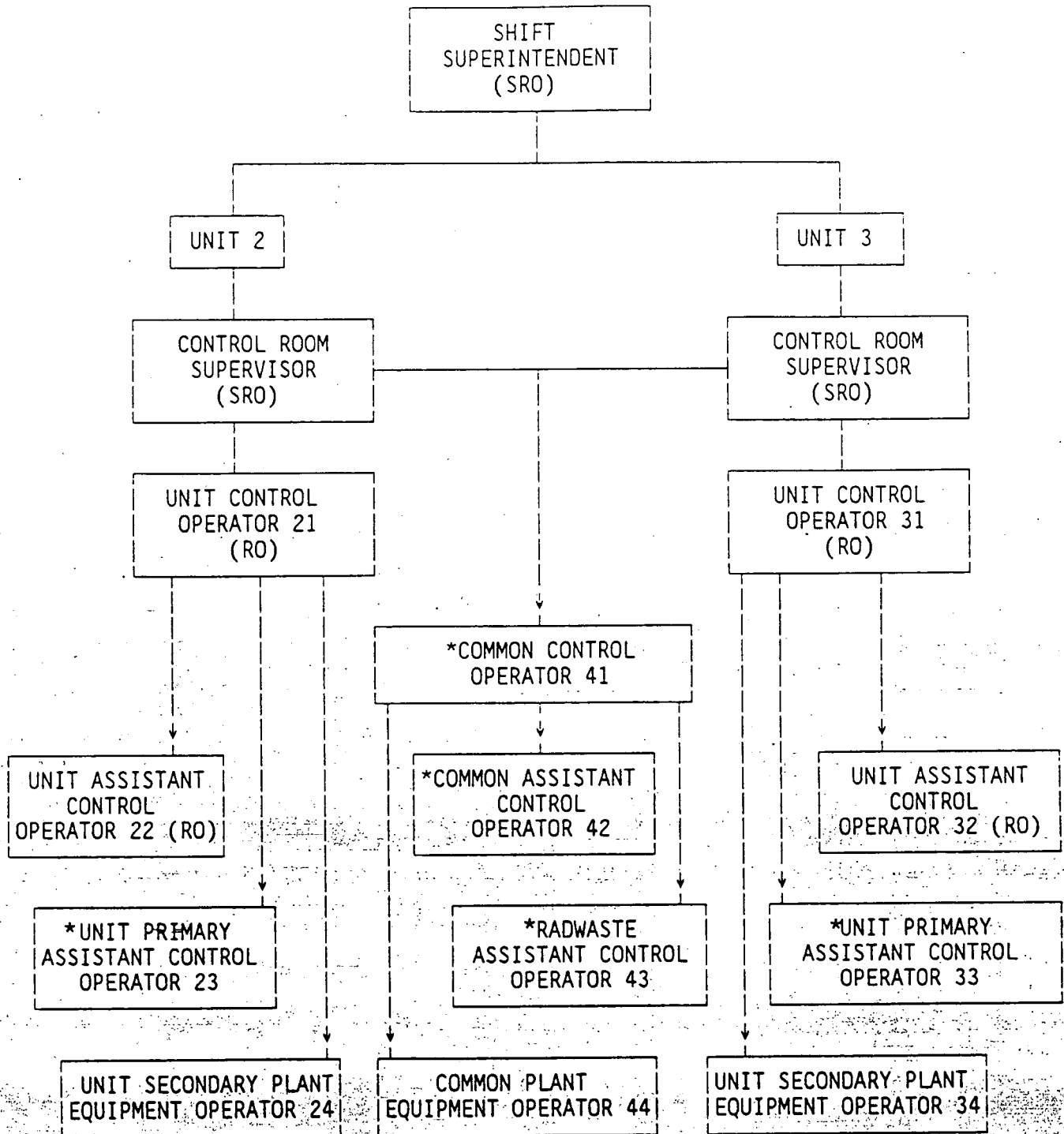
UNIT  
CONTROL  
OPERATOR  
(RO)

2  
UNIT  
ASSISTANT  
CONTROL  
OPERATORS  
(RO)

2  
PLANT EQUIPMENT  
OPERATORS

UNITS 2 AND 3

CHAIN OF COMMAND



\* May be filled by qualified non-licensed operators.

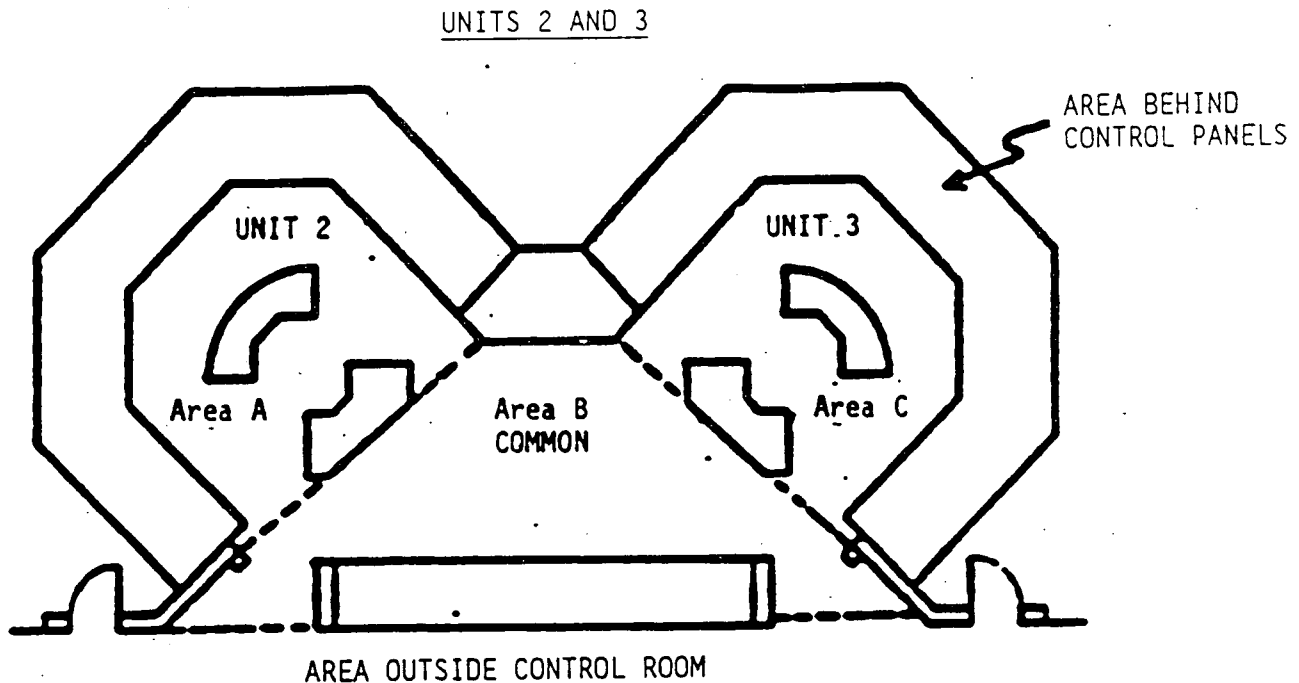
NOTE: In addition to the above, qualified individuals may be assigned to the Full Flow (25, 35), Blowdown (26, 36), Makeup Demineralizer (45), Aux. Boiler (46), and Water Transfer (47) watches as needed.

CONTROL ROOM BOUNDARY

UNIT 1

Control Room (at the Controls)

For Unit 1, that area bounded by the three vertical instrumentation boards, and the red line on the floor, of the Control Room.



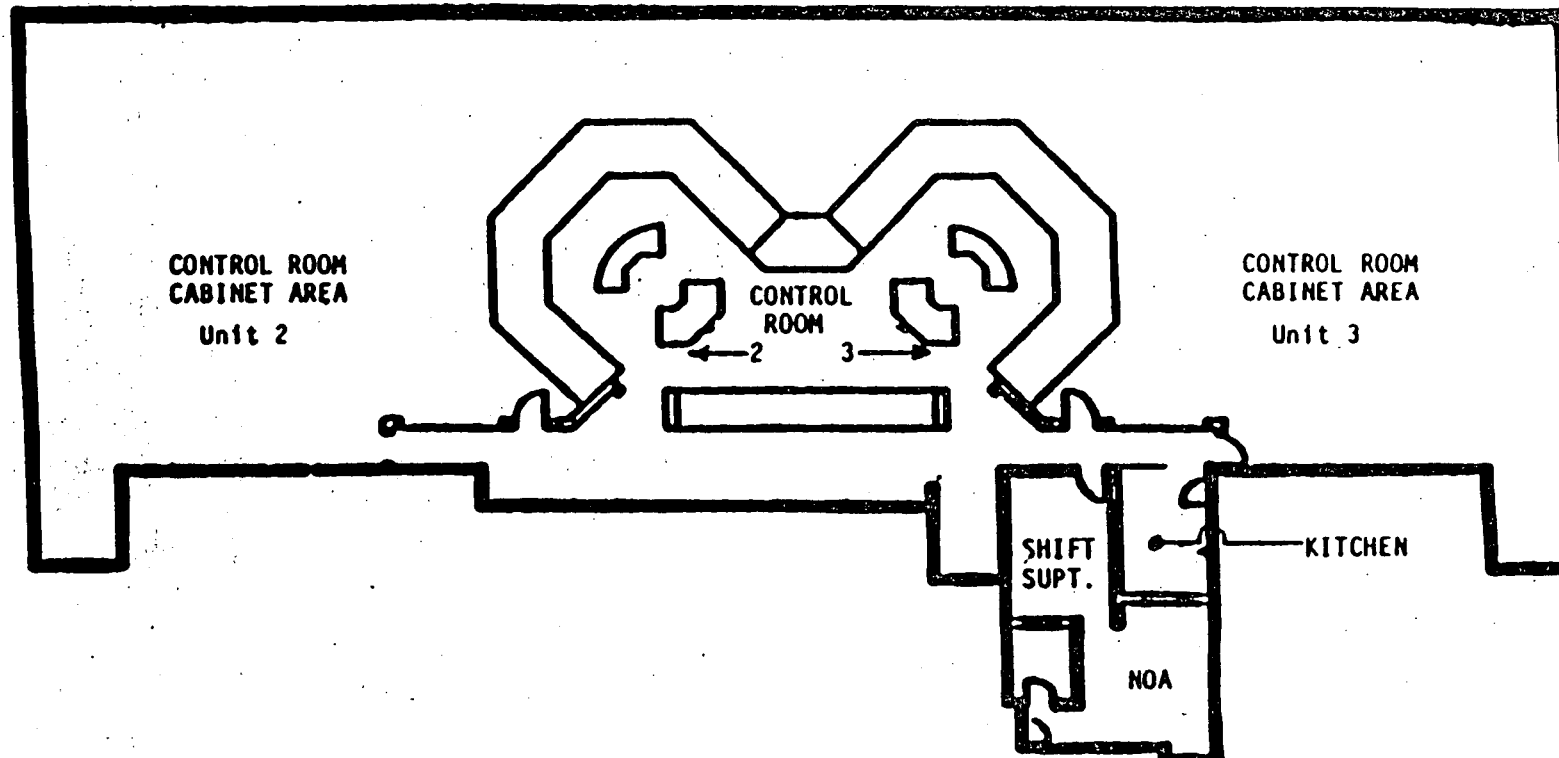
1. The Control Room boundary for meeting RO license requirements is that the area within the geometric shape formed by the control panels (Areas A, B & C). It does not include the area behind the control panels.
2. The operator at the controls should not normally leave the area where continuous attention (including visual surveillance of safety-related annunciators and instrumentation) can be given to reactor operating conditions and where he has access to the reactor controls.
  - a. Unit Control Operator 21 shall remain in areas A & B.
  - b. Unit Control Operator 31 shall remain in areas C & B.

CONTROL ROOM AREA

UNIT 1

1. For Unit 1, that area within the Control Room Vital area, i.e., Control Room, Shift Superintendent's Office and behind the Control boards.

UNIT 2 AND 3



1. Area inside of heavy dark line is the Control Room Area. The individual who has the Control Room Command Function shall remain in this area.



ACTIVE LICENSE TRACKING (Per 10CFR55.53)

Crew	Quarter							Year
	Name	1	2	3	4	5	6	
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
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28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

The above indicates 8 hour shifts standing a Tech. Spec. Licensed position (SS, Unit CRS, Unit CO, Unit ACO)

Performed By \_\_\_\_\_ /  
 Scheduler or NOA / Date

Reviewed By \_\_\_\_\_ /  
 Schedule Supervisor / Date

File Disposition  
 Original: CDM  
 Copy: Schedule Files

DOCUMENTED ON-SHIFT HOURS (per 10CFR55.57)

\_\_\_\_\_  
Name Date

Period of this report: from \_\_\_\_\_ to \_\_\_\_\_  
Date Date

During the period of this report the above named individual was on shift and thus operated the facility approximately \_\_\_\_\_  
Hours

The method used to approximate these hours was: (Check one)

Method A The individual was a normal shift operator (i.e., attended regular, no illness or absence > 30 days per year).

Method B The individual was not a normal shift operator or was assigned offshift during some of this reporting period.

Method C Other .... attach details.

Method A

1350 hrs/yr x \_\_\_\_\_ years = \_\_\_\_\_ hours

Method B

(1350 hrs/yr x \_\_\_\_\_ years) - (160 hrs/mo x \_\_\_\_\_ mo\*) = \_\_\_\_\_ hours

\* months off shift or other shift absence > 30 days

Performed By: \_\_\_\_\_ / \_\_\_\_\_  
Scheduler or NOA Date

Reviewed By: \_\_\_\_\_ / \_\_\_\_\_  
Schedule Supervisor Date

File Disposition

Original: CDM  
cc: Compliance  
Schedule Supervisor

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