

# The Light company

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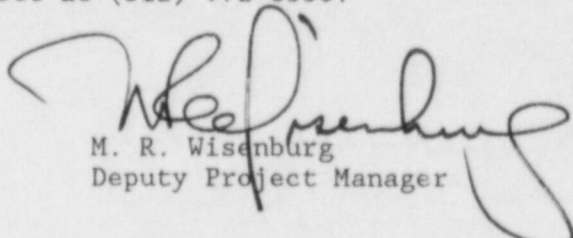
April 23, 1987  
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File No.: G9.17  
10CFR50

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555

South Texas Project  
Units 1 and 2  
Docket Nos. STN 50-498, STN 50-499  
FSAR Revisions Concerning  
Appendix 7A.S

Attached are general revisions to FSAR Appendix 7A.S "Supplement to NUREG-0737", which incorporate a number of editorial corrections as well as minor technical clarifications to provide consistency with the South Texas Project Electric Generating Station (STPEGS) Emergency Plan.

Houston Lighting & Power Company believes that conclusions previously reached in the SER remain valid. If you should have any questions on this matter, please contact Mr. M. A. McBurnett at (512) 972-8530.



M. R. Wisenburg  
Deputy Project Manager

MAM/ljm

Attachments

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Houston Lighting & Power Company

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Revised 2/3/87

STP Response to S.8. (Continued)

- B. The HVAC for the TSC is designed to provide a suitable environment during normal and post-accident operation, including protection from post-accident radiological releases. For further discussion of the TSC HVAC design see Section 9.4.1.

The TSC HVAC system is normally powered from a non-Class 1E motor control center (MCC) which provides power at 480V± 10 percent. When normal power is lost, a backup power supply from a non-Class 1E diesel generator is provided.

- are C. Radiation monitoring, toxic gas detection, and smoke detection capability is provided in the HVAC supply duct to the TSC. Alarm and indication are provided.

- D. High airborne radiation level in the intake to the TSC HVAC system switches the system to the filtration/recirculation mode of operation. Detection of high toxic gas or smoke level in the intake to the TSC heating, ventilating, and air conditioning (HVAC) system causes automatic isolation of the system.

- E. The following emergency items are provided:

1. Portable air breathing apparatus: <sup>18</sup>25 individual units.
2. Anticontamination clothing: <sup>18</sup>25 individual sets.
- ~~3. Potassium iodide as specified in the EMP.~~

Communications

- A. The TSC is provided with continuous communication with the following areas:

1. Control Room
2. Operational Support Center
3. Emergency Operations Center
4. Auxiliary Shutdown Panel at 1.
5. Nuclear Regulatory Commission, NRC "Hot Line" connected to the NRC Emergency Notification System
6. NRC Health Physics Network telephone system
7. State and Local Emergency Operations Centers



STP Response to S.8 (Continued)

Plant Records Storage

Plant records necessary to perform the TSC functions will be available in the TSC. The records available include:

- A. Plant design documents such as piping and instrumentation diagrams, control logic diagrams and electrical elementary diagrams.
- B. Radiation Zone drawings
- C. FSAR
- D. Emergency Operating Procedures
- E. Emergency ~~Management~~ Plan

~~F. Demographic Information~~

- F. ~~C. Photograph slides and~~ maps of the Emergency Planning Zone

Data Acquisition and Display

The Emergency Response Facilities Data Acquisition and Display System (ERFDADS), which is capable of reliable data collection, storage, analysis, display, and communications sufficient to determine plant status, determine changes in status, forecast status, and take appropriate actions, is provided (see Section S.4 of this appendix). The Safety Parameter Display System (SPDS), required by NUREG-0737, is implemented by the ERFDADS.

The Dose Assessment System provides reliable data collection, storage, analysis, display and communications sufficient to determine site and regional status, determine changes in status, forecast status and take appropriate actions in accordance with the STP Emergency ~~Management~~ Plan.

The ERFDADS and Dose Assessment System equipment located in the TSC are powered from a non-Class 1E, uninterruptable power supply (UPS) capable of maintaining system operation for 2 hours and system memory for 8 hours. Normal AC power to the UPS is supplied from a non-Class 1E diesel generator-backed bus.

TSC Operational Requirements

The TSC is designed to be fully functional within one hour of activation. The TSC is designed with an availability goal of 99 percent during all plant pressure and temperature conditions exceeding cold shutdown conditions. Activation of the TSC is required as shown below:

Plant Status

Notification of Unusual Event  
Alert

Activation

Optional  
Required

STP Response to S.8 (Continued)

Plant Status

Site Area Emergency  
General Emergency  
Other

Activation

Required  
Required  
As directed by plant  
management

OPERATIONAL SUPPORT CENTER (OSC)

When activated, the OSC is the onsite area separate from the control room where predesignated operations support personnel assemble.

The OSC is located in the Administration Building (see Figures 7A.S.8-1 and 7A.S.8-5) to facilitate support functions and tasks.

The OSC is provided with continuous voice communications with the control room, TSC, and EOC.

Adequate staffing will be provided by STP and will be identified in the Emergency ~~Management~~ Plan.

EMERGENCY OPERATIONS CENTER (EOC)

The EOC is a licensee-controlled and operated facility. The EOC provides for management of overall licensee emergency response, coordination of radiological and environmental assessment, determination of recommended public protective actions, and coordination of emergency response activities with federal, state, and local agencies.

When the EOC is activated, it will be staffed by predesignated personnel. A designated senior licensee official will manage licensee activities in the EOC.

Facilities are provided in the EOC for the acquisition, display, and evaluation of radiological and meteorological data and containment conditions necessary to determine protective measures. These facilities can be used to evaluate the magnitude and effects of actual or potential radioactive releases from the plant and to determine dose projections.

Safety Design Basis

The EOC does not perform any safety-related function. The design ensures that any fault or malfunction of the EOC equipment does not compromise any safety-related equipment, components, or structures.

Location and Structural Integrity

A. The EOC is a separate facility located approximately 0.5 mile east of the power block adjacent to the training/simulator building and linked to this building by an enclosed corridor (see Figures 7A.S.8-5 to 7A.S.8-7).

STP Response to S.8 (Continued)

- B. The EOC is structurally designed in accordance with the UBC and is designed to withstand the most adverse conditions reasonably expected during the design life of the plant, including high winds or floods of a 100 year recurrence frequency.

Size and Space Allocation

A working space of approximately 75 ft<sup>2</sup> per person is provided in the EOF. Areas other than those specifically designated as work areas may be used to contribute to the working space. The EOC provides for an occupancy of 9 NRC, 1 FEMA, 10 state, 2 county, 1 American Nuclear Insurers, and 25 licensee and owner personnel.

Habitability

- A. The EOC design affords at least a protection factor of 5, as defined for attenuation of 0.7 Mev gamma radiation in the EOC work/operations areas.
- B. Radiation monitoring for dose rate and airborne concentrations of radioactivity is provided. High radiation levels are alarmed in the work/operations area.

- C. Ventilation protection includes manual isolation capability and utilizes HEPA filters when in the recirculation mode.
- D. The EOC ventilation system is designed to maintain area temperature at 75 ±5°F and relative humidity at 50± 5 percent in occupied areas, storage, and equipment rooms.

The EOC HVAC system is powered from a non-Class 1E MCC which provides power at 480V ± 10 percent. When normal power is lost, a backup power supply from the EOC diesel generator is provided.

- E. Protective clothing and respiratory equipment are readily available to EOC personnel. ~~Cesium iodide will be provided as described in the EMP.~~

Communications

The EOC is provided with continuous voice communications with the following:

- A. Control room  
B. OSC  
C. TSC  
D. NRC Hot Line  
E. NRC Health Physics Network  
F. State and local emergency operations centers  
G. Media Information Center

Radio and telephone equipment used in the EOC is powered from a non-Class 1E, diesel generator-backed bus.



STP Response to S.8 (Continued)

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Plant Records Storage

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Plant records that will be available in the EOC include:

- A. Plant design documents such as piping and instrumentation diagrams, control logic diagrams and electrical diagrams
- B. Radiation Zone drawings
- C. Emergency Operating Procedures
- D. Emergency ~~Management~~ Plan and Procedures
- F. Demographic information
- G. Maps of the Emergency Planning Zone

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Data Acquisition and Display

The ERFDADS (see Section S.4 of this appendix), is capable of reliable data collection, storage analysis, display, and communications sufficient to determine plant status, determine changes in status, forecast status and provides ERF data acquisition and display in the EOC.

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The Dose Assessment system provides reliable data collection, storage, analysis, display and communications sufficient to determine site and regional radiological status, determine changes in status, forecast status, and determine appropriate actions in accordance with the STPEGS Emergency Management Plan.

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The ERFDADS and Dose Assessment System equipment located in the EOC is powered from a non-Class 1E, diesel generator-backed bus.

Diesel Generator

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A non-Class 1E diesel generator, separate from onsite diesels and local to the EOC, is provided to supply backup power to the EOC. A fuel tank adequate to operate the generator fully loaded for a period of 14 days is provided. A ventilation system which supplies outside air and exhausts to the outside, and is sized to support a maximum design temperature of 120°F, is provided for the diesel generator spaces.

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EOC Operational Requirements

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The EOC is designed to be fully functional within one hour of activation. The EOC is designed with an availability goal of 99 percent during plant pressure and temperature conditions exceeding cold shutdown conditions. Activation of the EOC is required as shown below:

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Plant Status

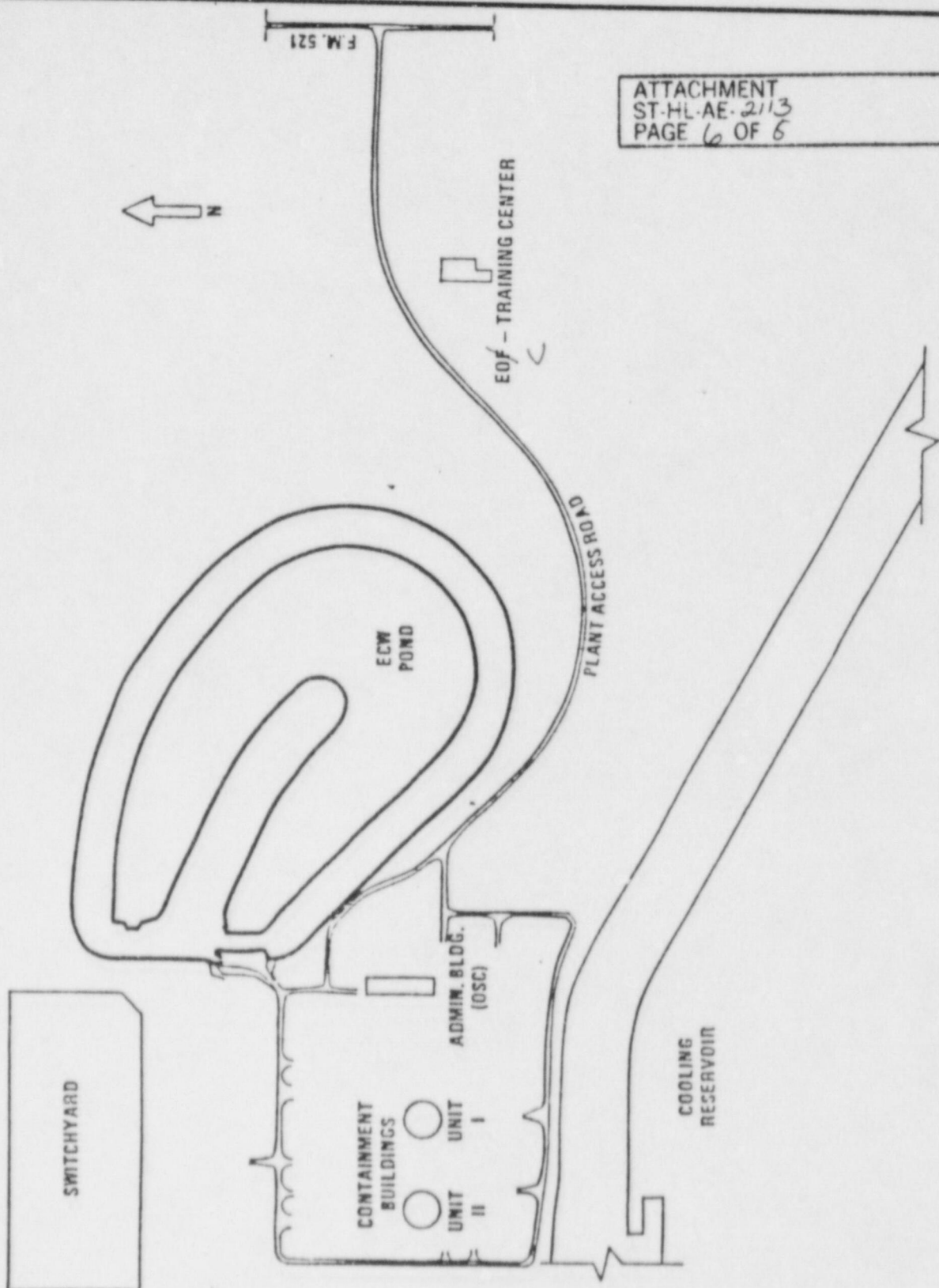
Activation

Notification of Unusual Event  
Alert  
Site Area Emergency  
General Emergency  
Other

Optional  
~~Optional~~ Required  
Required  
Required  
As directed by plant management

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ATTACHMENT  
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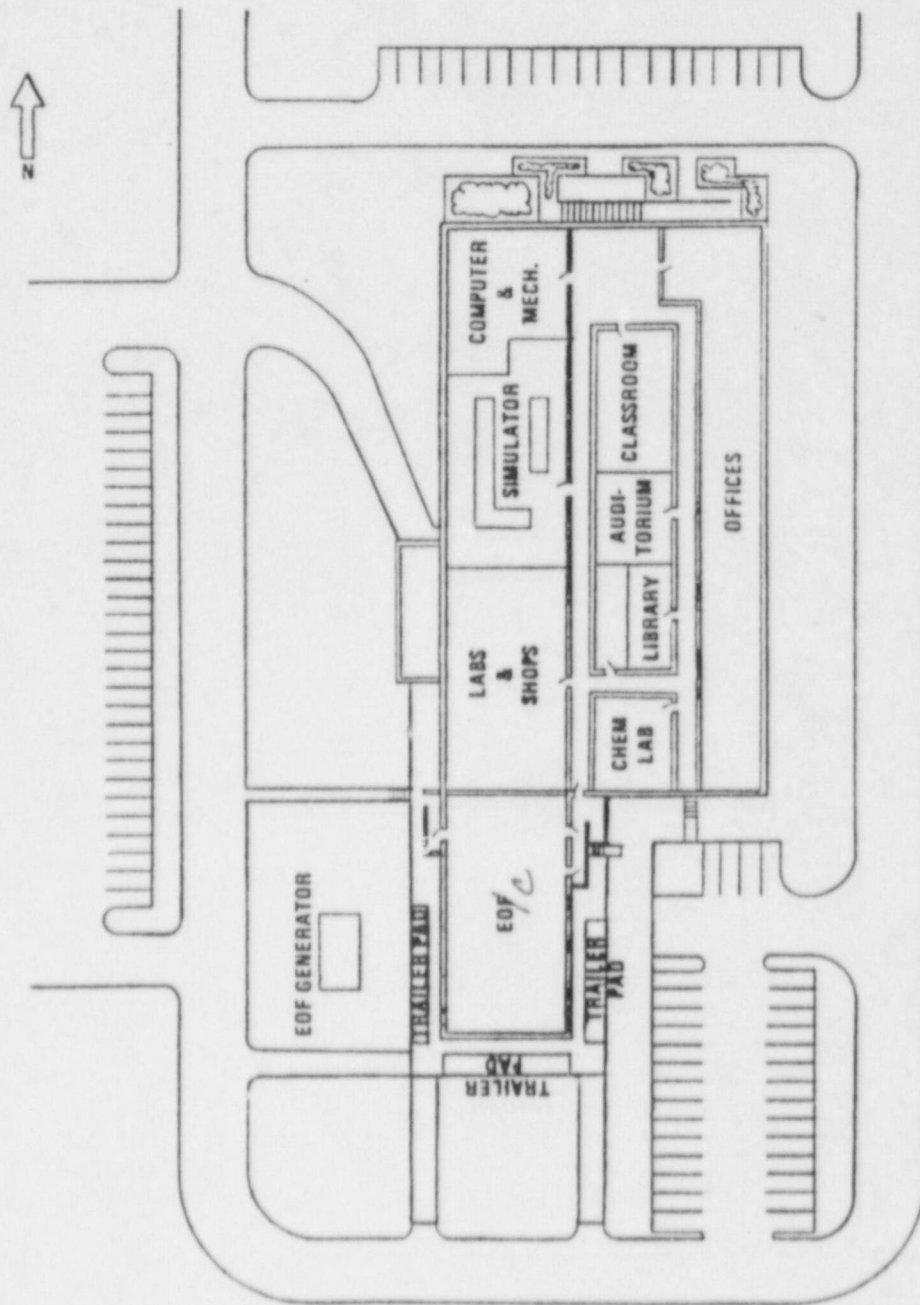
**SOUTH TEXAS PROJECT  
UNITS 1 & 2**

EMERGENCY OPERATIONS  
CENTER FACILITY (EOF)  
LOCATION C

Figure 7A.S.8-5

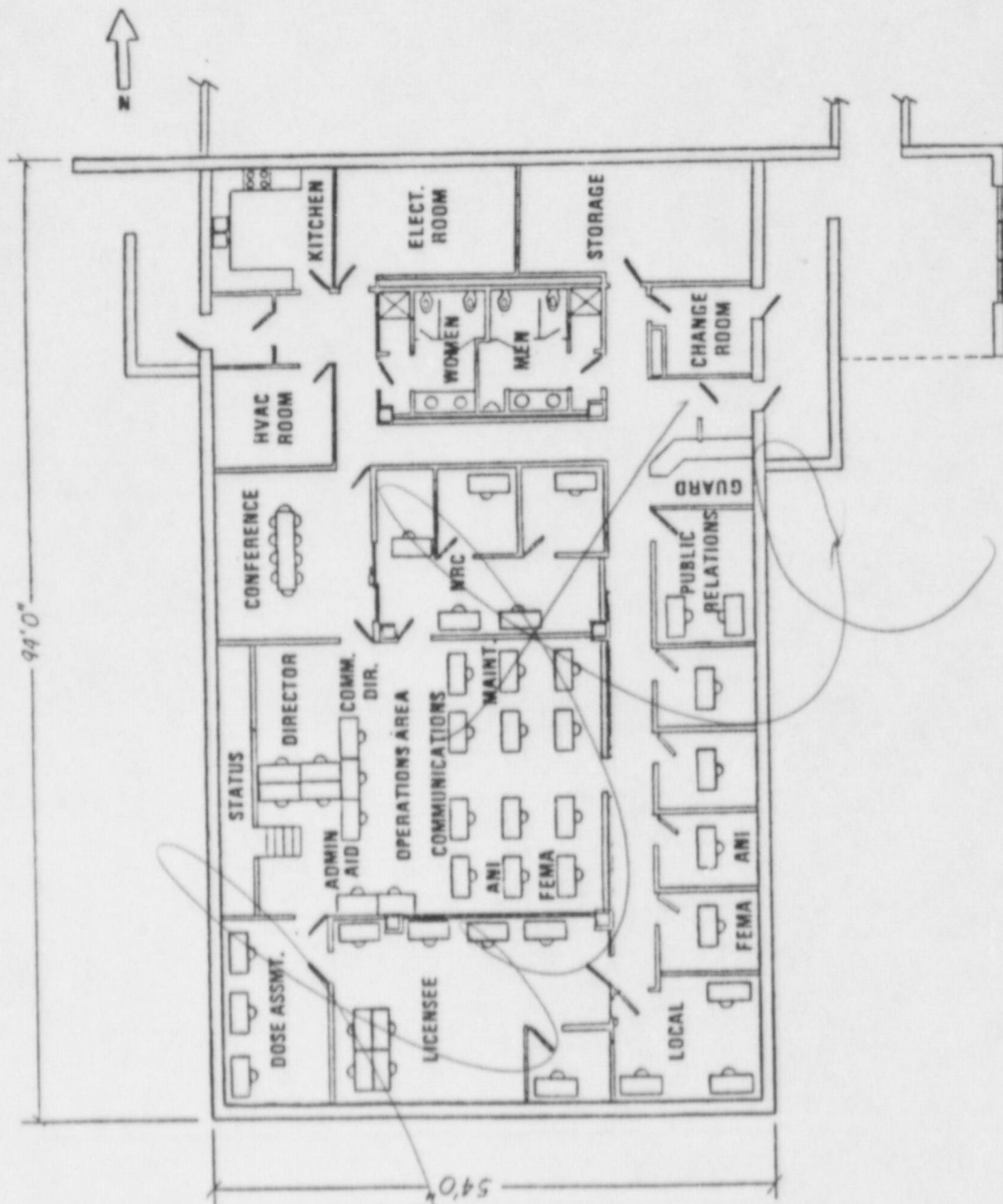
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# **SOUTH TEXAS PROJECT UNITS 1 & 2**

EOE<sup>c</sup> - TRAINING CENTER  
LAYOUT



## SOUTH TEXAS PROJECT UNITS 1 & 2

EOF FLOOR PLAN