Section 3TB
Tab

UNIT 3 TURBINE BUILDING

The Unit 3 Turbine Building is a reinforced concrete structure adjacent to the Safety Equipment Building and the Auxiliary Control Building. The Turbine Building is divided into five (5) fire areas. The barrier, penetration and door ratings are noted in the matrices.

The Turbine Building contains part of or all of the following systems, which can be used for, or support, safe shutdown and cooldown:

- Chemical and Volume Control
- HVAC
- Saltwater Cooling
- Shutdown Cooling
- Essential Electric Systems
- Component Cooling Water

The types of fire protection/detection equipment available in or near this building consists of the following:

- Portable extinguishers.

- Automatic water spray systems provide fire suppression to the following hazard areas: feedwater pumps, feedwater turbines, hydrogen oil seal unit, lube oil room and hydrogen gas control cubicle. Heat detectors are provided to actuate fire suppression systems for the hazard areas above.

- Smoke and fixed temperature rate of rise heat detectors.

- Wet-pipe sprinkler systems.

- Carbon dioxide suppression to protect the turbine generator bearings.

- A standpipe system with manual hose stations.

Fire Area/Zone	Contains Safe Shutdown Equipment/Cables	Contains Safety-Related Equipment/Cables	Figure No.
3-TB-7-148A	Yes	Yes	8-37, 8-38, 8-39
3-TB-9-148C	Yes	Yes	8-37
3-TB-9-148F	Yes	Yes	8-37
3-TB-8-148G	No	No	8-27, 8-32, 8-31
3-TB-30-148H	No	No	8-38, 8-39, 8-40
3-TB-7-149	No	No	8-37, 8-38
3-TB-7-150	No	No	8-37, 8-38, 8-39
3-TB-30-153	Yes	No	8-38
3-TB-72-154A	No	No	8-40

FPS **FIRE AREA/ZONE:** 3-TB-7-148A

AREA: 47626 sq.ft. **DESCRIPTION:** TURBINE BLDG.

DESIGN BASIS FIRE

Fire Loading Category:	Low
Fire Loading - Max Permiss	80,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	water spray system (locally)
Hose Stations	(12)
Portable Extinguishers	yes
Detectors (type)	ionization, local heat detectors

FIRE RESISTANCE RATING

Walls	(see text)
Floor, Ceiling, Roof	2hr/153, 149, HC/154A, 148E, grade
Penetrations	C, P, ND/153, QC/149
Fixed Openings	OD/148G, MH/148E, MH/153, metal shroud/154A
Doors	(2)A/3-149, B/3-153, (2)B/3-150, (2)X/3-148C, (3)NR/148H, (4)NR/ext, W/3-135A, W/3-136

HOT STANDBY SYSTEMS	**Equipment**	**Valves**	**Cable**
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater			
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS	**Equipment**	**Valves**	**Cable**
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)			

ESSENTIAL ELECTRIC SYSTEMS	**Equipment**	**MCC and Switchgear**	**Cable**
220 KV (AC)			X
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			A,X
Summary			A,X

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	YES

FIRE AREA/ZONE 3-TB-7-148A

Location

Turbine Building - El. 7'-0" - Unit 2 - 47,626 square feet - Figure 8-37

Fire Loading

Fire loading category - Low
Maximum permissible fire loading - 80,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible fire loading is based on an evenly distributed loading of combustible materials.

Design Basis Fire

The design basis fire is postulated to be a fire that would involve mostly cable insulation, oil and grease, plastic, charcoal, and miscellaneous combustibles.

The design basis fire is conservatively based on the simultaneous total combustion of all combustibles in the zone.

Fire Protection Equipment

A local water spray system and manual fire fighting equipment are available within the zone. Ionization smoke detectors and local heat detectors are provided in the fire zone.

Construction

A 3 hour rated wall separates the zone from the main lube oil building, 3-TB-7-149, 3-SE-(-5)-135A, 3-SE-(-15)-136, 3-SE-30-142A, 3-CT-(-2)-142B, and 3-TB-9-148C. The zone is separated from the elevator shaft, 3-TB-7-150, by a 2 hour rated wall. The wall between the zone and area 3-TB-30-153 are 1 hour rated. The remaining barriers are nonrated. The floor and ceiling are 2 hour rated concrete construction except to 2-TB-(-9)-148E, 3-TB-72-154A, and grade which are nonrated heavy concrete. An open doorway communicates with the corridor, 3-TB-7-148G. A metal hatch connects the zone to the Unit 2/3 saltwater cooling pipe tunnel, 2-TB-(-9)-148E. Rated and nonrated cabling and piping penetrations and nonrated ductwork penetrations exist in the zone. A 3 hour rated door communicates with the main lube oil building, 3-TB-7-149. The elevator shaft, 3-TB-7-150, and the switchgear room 3-TB-30-153, are separated from the zone by 1-1/2 hour rated doors. Two UL Class A equivalent doors separate the zone from the pump/heat exchanger area, 3-TB-9-148C. Nonrated doors connect the zone to the full flow condensate polisher demineralizer area, 3-TB-30-148H, and the exterior. Watertight doors communicate to 3-SE-(-15)-136 and 3-SE-(-5)-135A.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revision of Figure 8-37, Sheet 3.

Conclusions

The ionization detection system is expected to detect the products of combustion from an incipient fire and alert the control room for prompt response by the fire department. Local heat detectors are also available. A water spray system is provided locally and manual suppression equipment is available. These fire protection features will adequately mitigate the consequences of fire.

The fire boundaries between 3-TB-7-148A and 3-TB-7-149, 3-SE-(-15)-136, 3-SE-(-5)-135A were evaluated. The boundaries and associated fire protection features were found to be adequate to prevent the propagation of fire between the fire areas. The design basis fire is insufficient to breach the barriers defining the zone/fire area.

Appendix R compliance for fire area 2-TB-(-9)-148 is discussed in fire zone 2-TB-7-148A.

FPS **FIRE AREA/ZONE:** 3-TB-9-148C

AREA: 6841 sq.ft. **DESCRIPTION:** UNIT 3 PUMP/HEAT EXCHANGE AREA

DESIGN BASIS FIRE

Fire Loading Category:	Minimal
Fire Loading - Max Permiss	13,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	none
Hose Stations	(1)
Portable Extinguishers	yes
Detectors (type)	none

FIRE RESISTANCE RATING

Walls	3hr/148A, HC/others
Floor, Ceiling, Roof	NR, no roof
Penetrations	NP/149
Fixed Openings	OP/exterior OP/149
Doors	NR/2-TB-7-148B, L/3-TB-9-148F,,A/3-TB-7-149, (2) X/3-TB-7-148A

HOT STANDBY SYSTEMS

	Equipment	Valves	Cable
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater			
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS

	Equipment	Valves	Cable
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)			

ESSENTIAL ELECTRIC SYSTEMS

	Equipment	MCC and Switchgear	Cable
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			A
Summary			A

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	NO

FIRE AREA/ZONE 3-TB-9-148C

Location

Intake Structure - El. 9'-0" - Unit 3 Circulating Water Pump/Heat Exchanger Area - 6841 square feet - Figure 8-37

Fire Loading

Fire loading category - Minimal
Maximum permissible fire loading - 13,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible fire loading is based on an evenly distributed loading of combustible materials.

Design Basis Fire

The design basis fire is postulated to be a fire that would involve mostly cable insulation.

The design basis fire is conservatively based on the simultaneous total combustion of all combustibles in the zone.

Fire Protection Equipment

Manual fire fighting equipment is available within the zone. No fire detection equipment is provided within the zone.

Construction

The zone is not enclosed. A 3 hour rated reinforced concrete wall separates the area from the turbine building (3-TB-7-148A). The zone is separated from the adjacent saltwater cooling pump room (3-TB-9-148F) and main lube oil building (3-TB-7-149) by heavy concrete walls. A nonrated door communicates with the access road (2-TB-7-148B). A bullet-resistant door opens to the saltwater cooling pump room (3-TB-9-148F). A 3 hour rated door separates the area from the main lube oil building. Two UL Class A equivalent doors separate the zone from Zone 3-148A.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revision of Figure 8-37, sheet 3.

Conclusions

Manual suppression is available in the zone and is adequate to extinguish a fire. Detection is not provided. Heavy concrete walls and rated, nonrated and bullet-resistant doors separate the zone from adjacent safety related areas.

The design basis fire is insufficient to breach the barriers defining the zone/fire area.

Appendix R compliance for fire area 2-TB-(-9)-148 is discussed in fire zone 2-TB-7-148A.

FPS **FIRE AREA/ZONE:** 3-TB-9-148F

AREA: 3250 sq.ft. **DESCRIPTION:** UNIT 3 SALTWATER PUMP ROOM

DESIGN BASIS FIRE

Fire Loading Category:	Minimal
Fire Loading - Max Permiss	160,000.0 Btu's/sq.f

FIRE PROTECTION (AVAILABLE)

Suppression (type)	wet pipe sprinklers
Hose Stations	none, (1) in yard
Portable Extinguishers	yes
Detectors (type)	ionization

FIRE RESISTANCE RATING

Walls	HC
Floor, Ceiling, Roof	HC
Penetrations	C, P, NP/148C, NP/148B, NP/exterior
Fixed Openings	OP/148E, CH/exterior
Doors	L/3-TB-9-148C, L/2-TB-7-148B

HOT STANDBY SYSTEMS	**Equipment**	**Valves**	**Cable**
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC	A,B		A,B
Auxiliary Feedwater			
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water	A,B	A,B	A,B
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS	**Equipment**	**Valves**	**Cable**
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)	A,B	A,B	A,B

ESSENTIAL ELECTRIC SYSTEMS	**Equipment**	**MCC and Switchgear**	**Cable**
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			A,B
Summary			A,B

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	NO

FIRE AREA/ZONE 3-TB-9-148F

Location

Intake Structure - El. (-9'-0") - Unit 3 Salt Water Cooling Pump Room - 3250 square feet - Figure 8-37

Fire Loading

Fire loading category - Minimal
Maximum permissible fire loading - 160,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible fire loading is based on an evenly distributed loading of combustible materials.

Design Basis Fire

The design basis fire is postulated to be a fire that would involve mostly cable insulation and oil.

The design basis fire is conservatively based on the simultaneous total combustion of all combustibles in the zone.

Fire Protection Equipment

The zone contains an automatic wet pipe sprinkler system. Manual fire fighting equipment is available within the zone. Hose streams are available from yard hydrants or portable equipment. Ionization smoke detectors, located throughout the zone, provide early warning alarm in the control room.

Construction

The walls defining the zone are nonrated reinforced concrete construction with an approximate thickness of 12 inches. The ceiling and floor are also heavy concrete construction. Two bullet-resistant doors separate the zone from adjacent zones 3-TB-9-148C and 2-TB-7-148B. The zone communicates with the adjacent saltwater cooling pipe tunnel (2-TB-(-9)-148E) through an unsealed piping penetration.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revision of Figure 8-37, sheet 3.

Conclusions

Smoke generated by the design basis fire will be vented to the outside through the louvers in the exterior wall of the zone. Portable smoke exhaust fans may be used if additional smoke removal capability is required.

The ionization detection system is expected to detect the products of combustion from an incipient fire and alert the control room for prompt response by the fire department. Wet pipe sprinklers and portable extinguishers are provided in the zone. These fire protection features will adequately mitigate the consequences of fire.

FIRE AREA/ZONE 3-TB-9-148F

The design basis fire is insufficient to breach the barriers defining the zone/fire area.

A deviation from the requirements of 10CFR50 Appendix R, III.G.2 has been accepted for (1) redundant safe shutdown equipment in zones 2-TB-9-148F and 3-TB-9-148F separated by greater than 20 feet with limited intervening combustibles and partial detection, and (2) for lack of area-wide suppression and detection in the Turbine Building fire area 148.

Appendix R compliance for fire area 2-TB-(-9)-148 is discussed in fire zone 2-TB-7-148A.

FPS | **FIRE AREA/ZONE:** 3-TB-8-148G

AREA: 880 sq.ft. **DESCRIPTION:** CORRIDOR

DESIGN BASIS FIRE

Fire Loading Category:	Minimal
Fire Loading - Max Permiss	13,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	none
Hose Stations	none
Portable Extinguishers	none
Detectors (type)	none

FIRE RESISTANCE RATING

Walls	3hr/7,81,135A,2A, others HC
Floor, Ceiling, Roof	2hr, HC/floor grade
Penetrations	QC/135A
Fixed Openings	OD/148A
Doors	(2) W/3-SE-9-150-135A, W/3-PE-9-2A

HOT STANDBY SYSTEMS

	Equipment	Valves	Cable
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater			
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS

	Equipment	Valves	Cable
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)			

ESSENTIAL ELECTRIC SYSTEMS

	Equipment	MCC and Switchgear	Cable
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			
Summary			

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	YES

FPS **FIRE AREA/ZONE:** 3-TB-30-148H

AREA: 9000 sq.ft. **DESCRIPTION:** FFCPD AREA

DESIGN BASIS FIRE

Fire Loading Category:	Low
Fire Loading - Max Permiss	40,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	none
Hose Stations	(4)
Portable Extinguishers	yes
Detectors (type)	ionization, heat

FIRE RESISTANCE RATING

Walls	1hr/153, NR/others
Floor, Ceiling, Roof	NR
Penetrations	none
Fixed Openings	OP/exterior
Doors	(3)NR/3-TB-8-148A, NR/3-TB-30-153

HOT STANDBY SYSTEMS

	Equipment	Valves	Cable
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater			
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS

	Equipment	Valves	Cable
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)			

ESSENTIAL ELECTRIC SYSTEMS

	Equipment	MCC and Switchgear	Cable
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			
Summary			

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	NO

FPS **FIRE AREA/ZONE:** 3-TB-7-149

AREA: 1554 sq.ft. **DESCRIPTION:** MAIN LUBE OIL BUILDING

DESIGN BASIS FIRE

Fire Loading Category:	High
Fire Loading - Max Permiss	2,666,441.0 Btu's/s(

FIRE PROTECTION (AVAILABLE)

Suppression (type)	water spray system, wet pipe sprinklers
Hose Stations	none,(1)in 3-TB-7-148A
Portable Extinguishers	yes
Detectors (type)	ionization, heat detectors

FIRE RESISTANCE RATING

Walls	HC/148C, others 3hr
Floor, Ceiling, Roof	HC/floor, 2hr/ceiling
Penetrations	P, C, D, NP/148C, QC/148A
Fixed Openings	OP/148C, louvers
Doors	(2)A/3-TB-7-148A, A/3-TB-9-148C

HOT STANDBY SYSTEMS

	Equipment	Valves	Cable
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater			
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS

	Equipment	Valves	Cable
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)			

ESSENTIAL ELECTRIC SYSTEMS

	Equipment	MCC and Switchgear	Cable
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			
Summary			

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	NO

FPS **FIRE AREA/ZONE:** 3-TB-7-150

AREA: 500 sq.ft. **DESCRIPTION:** ELEVATOR SHAFT

DESIGN BASIS FIRE

Fire Loading Category:	Minimal
Fire Loading - Max Permiss	13,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	none
Hose Stations	none,(1) in adjacent zone each floor
Portable Extinguishers	yes, adjacent
Detectors (type)	ionization in elev. machine room

FIRE RESISTANCE RATING

Walls	2hr
Floor, Ceiling, Roof	HC
Penetrations	none
Fixed Openings	louver
Doors	(2)B/3-TB-7-148A, NR/exterior

HOT STANDBY SYSTEMS

	Equipment	Valves	Cable
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater			
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS

	Equipment	Valves	Cable
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)			

ESSENTIAL ELECTRIC SYSTEMS

	Equipment	MCC and Switchgear	Cable
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			
Summary			

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	NO

FPS | **FIRE AREA/ZONE:** 3-TB-30-153

AREA: 4176 sq.ft. **DESCRIPTION:** SWITCHGEAR ROOM

DESIGN BASIS FIRE

Fire Loading Category:	Low
Fire Loading - Max Permiss	40,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	none
Hose Stations	none, (1) in 3-TB-7-148a
Portable Extinguishers	yes, adjacent
Detectors (type)	ionization

FIRE RESISTANCE RATING

Walls	3hr/142B, 1hr/others
Floor, Ceiling, Roof	2hr
Penetrations	C, P, D, ND/148A
Fixed Openings	louvers, MH/148A
Doors	NR/exterior, B/3-TB-7-148A,,NR/2-TB-30-148H

HOT STANDBY SYSTEMS	**Equipment**	**Valves**	**Cable**
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater			
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS	**Equipment**	**Valves**	**Cable**
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)			

ESSENTIAL ELECTRIC SYSTEMS	**Equipment**	**MCC and Switchgear**	**Cable**
220 KV (AC)			X
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			X
Summary			X

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	NO

FIRE AREA/ZONE 3-TB-30-153

Location

Turbine Building - El. 30' -0" - Switchgear Room - 4176 square feet

Fire Loading

Fire loading category - Low
Maximum permissible fire loading - 40,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible fire loading is based on an evenly distributed loading of combustible materials.

Design Basis Fire

The design basis fire involves mostly cable insulation and is conservatively based on the simultaneous total combustion of all combustibles in the zone.

Fire Protection Equipment

The zone contains no automatic suppression systems or hose stations, and a minimum of one portable extinguisher. There are ionization detectors located in the zone to provide early warning alarm to the control room. Yard hydrants and portable extinguishers in adjacent areas are also available to provide fire fighting capability.

Construction

The east area boundary is a 3 hour rated wall where it interfaces with 3-CT-(-2)-142B. Other walls have 1 hour ratings. The floor and ceiling have a 2 hour rating. There are non-rated penetrations and dampers leading to adjacent areas. Two non-rated doors separate the area from the yard and the FFCPC area. A 1-1/2 hour rated door separates the area from zone 148A.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revision of Figure 8-38, sheet 3.

Conclusions

The ionization detectors are expected to detect the products of combustion from an incipient fire and alert the control room for prompt action by the fire department. The available manual fire fighting equipment is adequate to extinguish the fire. These fire protection features will adequately mitigate the consequences of the fire and confine it to the subject fire area.

The design basis fire is insufficient to breach the barriers defining the fire area.

Fire Area 3-TB-30-153 Appendix R Compliance

Safe shutdown capability in the subject fire area will be provided utilizing Train A systems. Functionally redundant components protected from fire damage will be utilized to achieve safe shutdown.

One train of systems necessary to achieve hot standby and cold shutdown conditions independent of the subject fire area will be free of fire damage. Therefore, this fire area complies with the criteria of 10CFR50, Appendix R, Section III.G.1.

FPS **FIRE AREA/ZONE:** 3-TB-72-154A

AREA: 49680 sq.ft. **DESCRIPTION:** TURBINE GENERATOR DECK

DESIGN BASIS FIRE

Fire Loading Category:	Minimal
Fire Loading - Max Permiss	13,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	CO2 for generator bearings
Hose Stations	(4)
Portable Extinguishers	yes
Detectors (type)	local heat detectors

FIRE RESISTANCE RATING

Walls	none
Floor, Ceiling, Roof	HC, no roof
Penetrations	NC/148A, NP/148A
Fixed Openings	MH/148A, metal shroud/148A
Doors	none

HOT STANDBY SYSTEMS

	Equipment	Valves	Cable
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater			
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS

	Equipment	Valves	Cable
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)			

ESSENTIAL ELECTRIC SYSTEMS

	Equipment	MCC and Switchgear	Cable
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			
Summary			

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	NO

FIRE AREA/ZONE 3-TB-72-154A

Location

Turbine Building - El. 72'-0" - Turbine Generator Deck - 49,680 square feet

Fire Loading

Fire loading category - Minimal
Maximum permissible fire loading - 13,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible fire loading is based on an evenly distributed loading of combustible materials.

Design Basis Fire

The design basis fire is postulated to be a fire that would involve mostly Hydraulic oil. The design basis fire is conservatively based on simultaneous total combustion of all combustibles in the fire zone.

Fire Protection Equipment

The zone contains CO_2 suppression system for the generator bearings, hose stations, portable extinguishers and local heat detectors.

Construction

The zone floor is of heavy concrete construction. A metal hatch provides access to zone 3-TB-7-148A. Unsealed cabling and piping penetrations run into zone 3-TB-7-148A. There are no walls or doors in the zone.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revision of Figure 8-14, sheet 3.

Conclusions

The fixed temperature rate of rise heat detectors provide early warning alarm to the control room. The CO_2 suppression system, hose stations and portable equipment available is adequate to extinguish the design basis fire.

Manual suppression equipment is provided in the fire zone. A CO_2 suppression system is provided for the generator bearings. The fire zone contains local heat detectors. These fire protection features will adequately mitigate the consequences of fire.

The design basis fire is insufficient to breach the barriers defining the zone/fire area.

Fire Area 3-TB-72-154 Appendix R Compliance

Safe shutdown capability will be provided by utilizing Train A systems.

One train of systems necessary to achieve hot standby and cold shutdown conditions independent of the subject fire area will be free of fire damage. Therefore, this fire area complies with the criteria of 10CFR50, Appendix R, III.G.1.

Section 3CT
Tab

UNIT 3 CABLE TUNNELS

The Unit 3 Cable Tunnel fire area (a portion of which is in the Safety Equipment building) contains part of or all of the following systems, which can be used for, or support, safe shutdown and cooldown:

- Shutdown Cooling
- Auxiliary Feedwater
- Component Cooling Water
- Saltwater Cooling Water
- Essential Electric Systems
- Diesel Generator Systems
- Main Feedwater
- Main Steam
- HVAC
- Engineered Safety Feature
- Emergency Chilled Water

The barrier, penetration, and door ratings are noted in the matrices.

The types of protection/detection equipment available in or near the tunnels consist of the following:

- Portable extinguishers.
- Smoke and fixed temperature rate of rise heat detectors.
- Fixed water spray systems. The detectors used to automatically operate the spray systems will be fixed temperature rate of rise heat detectors.
- Hose streams from yard hydrants or portable equipment.

Fire Area/Zone	Contains Safe Shutdown Equipment/Cables	Contains Safety-Related Equipment/Cables	Figure No.
3-CT-(-2)-142B	Yes	Yes	8-33, 8-42
3-CT-16-142C	Yes	Yes	8-27, 8-28, 8-29, 8-30, 8-35, 8-36, 8-42

FPS | **FIRE AREA/ZONE:** 3-CT-(-2)-142B

AREA: 7253 sq.ft. | **DESCRIPTION:** ELECTRICAL CABLE TUNNEL

DESIGN BASIS FIRE

Fire Loading Category:	Medium
Fire Loading - Max Permiss	160,000.0 Btu's/sq.f

FIRE PROTECTION (AVAILABLE)

Suppression (type)	water spray system
Hose Stations	none, hydrants on yard main
Portable Extinguishers	yes
Detectors (type)	ionization, heat detectors

FIRE RESISTANCE RATING

Walls	HC/137A,136, NR/142A,142C, others 3hr
Floor, Ceiling, Roof	2hr/see text, HC/floor grade
Penetrations	C, SG, D, NC/200B
Fixed Openings	OP/142A, OP/142C, M/exterior
Doors	B/3-SE-(-2)-176

HOT STANDBY SYSTEMS	**Equipment**	**Valves**	**Cable**
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			A,B
HVAC			a,B
Auxiliary Feedwater			a,A,B,C
Engineered Safety Feature			A,B,C,D
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			A,B

COLD SHUTDOWN SYSTEMS	**Equipment**	**Valves**	**Cable**
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)			a,A,B,C,D

ESSENTIAL ELECTRIC SYSTEMS	**Equipment**	**MCC and Switchgear**	**Cable**
220 KV (AC)			X
4160 V (AC)			A,B
480 V (AC)			A,B
120 V (AC)			
125 V (DC)			
Electric Panels			A,B,X
Summary			A,B,X

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	YES

FIRE AREA/ZONE 3-CT-(-2)-142B

Location

Cable Tunnel - El. (-2'-6") - Electrical Cable Tunnel - 7253 square feet - Figures 8-33, 8-42

Fire Loading

Fire loading category - Medium
Maximum permissible fire loading - 160,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible fire loading is based on an evenly distributed loading.

Design Basis Fire

The design basis fire is postulated to be a fire that would involve mostly cable insulation.

The design basis fire is conservatively based on the simultaneous total combustion of all combustibles in the zone.

Fire Protection Equipment

The zone contains an automatic water spray system, with fixed temperature rate of rise actuation. Actuation by the heat detectors results in control room annunciation. Manual fire fighting equipment is available within the zone. In addition, hose streams are available from yard hydrants or portable equipment. Ionization smoke detectors, located throughout the zone, provide early warning alarm in the control room.

Construction

The walls defining the zone are reinforced concrete with a 3 hour rating except the walls adjoining areas 3-SE-(-15)-136 and 3-SE-(-15)-137A. The walls to these two areas is part of a double wall configuration. The walls on the 3-SE-(-15)-136 and 3-SE-(-15)-137A side (of the double wall) are 3 hour rated so in essence three hour separation is provided between electrical cable tunnel and these two areas. The walls to Zone 3-161C, D & E are also part of a double wall configuration. With both walls being 3 hour rated, two manholes approximately 10'x6'-6" (3-161E & D) and a cable vault approximately 17'x8' (3-161C) comprise this interface. The ceiling is 2 hour rated as is the floor to other fire area/zones. The ceiling has nonrated cable penetrations to the Unit Auxiliary and Reserve Auxiliary transformer termination enclosures in the Yard Area (2-YD-30-200B) above. The floor to grade is nonrated heavy concrete construction. The zone is open to the safety equipment building electrical tunnel (3-SE-30-142A), and to the cable shaft (3-CT-16-142C) which are zones of the same fire area. Four covered manholes provide access to the tunnel at ground level. A 1-1/2 hour rated fire door is provided to fire area 3-SE-(-2)-176.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revisions of Figures 8-33 and 8-42, sheet 3.

Cable for the following systems is wrapped in Fire Zone 3-142B:

Auxiliary Feedwater - Train A
HVAC - Train A

Conclusions

The ionization detection system is expected to detect the products of combustion from an incipient fire and alert the control room for prompt response by the fire department. Portable suppression equipment is available. The water spray system may also be actuated from one of the manual pull stations located throughout the zone. The available portable equipment is adequate to extinguish the fire during its initial stages of growth.

In the event the fire achieves sufficient intensity, the fixed temperature rate of rise heat detectors will actuate the water spray system automatically. Actuation by the heat detectors is alarmed in the control room. The water spray system will control and suppress the fire until the fire department arrives and completes the extinguishment with portable equipment.

Should automatic water spray system fail to actuate, the fire department will be utilized to extinguish the fire.

The fire boundaries between 3-CT-(-2)-142B and 3-SE-(-15)-136, and 3-SE-(-15)-137A were evaluated. The boundaries and associated fire protection features were found to be adequate to prevent the propagation of fire between the fire areas.

The fire boundaries between 3-CT-(-2)-142B and 2-YD-30-200B were evaluated. The boundaries and associated fire protection features were found to be adequate to prevent the propagation of fire between the fire areas.

A deviation from the requirements of 10CFR50 Appendix R, III.G.2 has been accepted for fire area 3-142 to the extent it requires the separation of redundant safe shutdown trains by 20 feet separation with no intervening combustibles and 1 hour rated barriers with suppression and detection. The fire detection and suppression systems in this area/zone were evaluated and shown to provide a level of protection equivalent to the requirements Appendix R.

Appendix R compliance for fire area 3-CT-(-2)-142 is discussed in fire zone 3-SE-30-142A.

FPS **FIRE AREA/ZONE:** 3-CT-16-142C

AREA: 150 sq.ft. **DESCRIPTION:** CABLE SHAFT

DESIGN BASIS FIRE

Fire Loading Category:	High
Fire Loading - Max Permiss	(SEE TEXT)

FIRE PROTECTION (AVAILABLE)

Suppression (type)	water spray
Hose Stations	none, hydrants on yard main
Portable Extinguishers	none, adjacent
Detectors (type)	ionization, heat detectors

FIRE RESISTANCE RATING

Walls	NR/142B, others 3hr
Floor, Ceiling, Roof	2hr/ceiling, HC/floor
Penetrations	C, P
Fixed Openings	OP/142B
Doors	none

HOT STANDBY SYSTEMS	**Equipment**	**Valves**	**Cable**
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater			
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			A

COLD SHUTDOWN SYSTEMS	**Equipment**	**Valves**	**Cable**
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)			A

ESSENTIAL ELECTRIC SYSTEMS	**Equipment**	**MCC and Switchgear**	**Cable**
220 KV (AC)			X
4160 V (AC)			A,B
480 V (AC)			A
120 V (AC)			
125 V (DC)			
Electric Panels			A
Summary			A,B,X

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	YES

FIRE AREA/ZONE 3-CT-16-142C

Location

Cable Tunnel - El. 16'-6" - Cable Shaft - 150 square feet - Figures 8-27, 8-28, 8-29, 8-30, 8-35, 8-36, 8-42.

Fire Loading

Fire loading category - High (Note 2)
Maximum permissible fire loading - 160,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible fire loading is based on an evenly distributed loading of combustible materials.

Note 2: The fire loading category shown above is distorted because this zone is a vertical cable chase with a very small floor area relative to its height.

Design Basis Fire

The design basis fire is postulated to be a fire that involve mostly cable insulation and plastic (i.e., chemgrate).

The design basis fire is conservatively based on the simultaneous total combustion of all combustibles in the zone.

Fire Protection Equipment

The zone contains an automatic water spray system with fixed temperature rate of rise actuation. Actuation by the heat detectors results in local and control room annunciation. Manual fire fighting equipment is available in adjacent zone 3-CT-(-2)-142B. In addition, hose streams are available from yard hydrants or portable equipment. An ionization smoke detector, located at the top of the cable shaft, provides early warning alarm in the control room.

Construction

The walls are 3 hour rated reinforced concrete construction. The zone is open to zone 3-CT-(-2)-142B. The ceiling is 2 hour rated concrete construction. The floor to grade is nonrated heavy concrete construction. Cable fire stops are provided for the vertical cable trays.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revisions of Figures 8-27, 8-28, 8-29, 8-30, 8-35, 8-36, and 8-42, sheet 3.

Conclusions

The ionization detection system is expected to detect the products of combustion from an incipient fire and alert the control room for prompt response by the fire department. Portable suppression equipment is available. The available portable equipment is adequate to extinguish the fire during its initial stages of growth.

In the event the fire achieves sufficient intensity, the fixed temperature rate of rise heat detectors will actuate the water spray system automatically. Actuation by the heat detectors is alarmed in the control room. The water spray system will control and suppress the fire until the fire department arrives and completes the extinguishment with portable equipment.

Should the automatic spray system fail to actuate, the fire department will be utilized to extinguish the fire.

A deviation from the requirements of 10CFR50, Appendix R has been accepted for fire area 3-142 to the extent it requires the separation of redundant safe shutdown trains by 20 foot separation with no intervening combustibles and 1 hour rated barriers with detection and suppression. The fire detection and suppression systems in this area/zone were evaluated and shown to provide a level of protection equivalent to the requirements of Appendix R.

Appendix R compliance for fire area 3-CT-(-2)-142 is discussed in fire zone 3-SE-30-142A.

Section 3DG Tab

UNIT 3 DIESEL GENERATOR BUILDING

The Unit 3 Diesel Generator building is a reinforced concrete structure which contains the diesel generators, fuel oil storage day tanks and support equipment. The Diesel Generator Building is divided into six (6) fire areas. The barrier, penetration and door ratings are noted in the matrices.

The Diesel Generator Building contains part of or all of the following systems:

- Diesel Generator Systems
- Essential Electric Systems

The type of fire protection/detection equipment available in or near this building consists of the following:

- Portable extinguishers
- Pre-action sprinkler systems are provided to protect the diesel generator systems.
- Smoke and infrared detectors.
- Standpipe system with manual hose stations.

Fire Area/Zone	Contains Safe Shutdown Equipment/Cables	Contains Safety-Related Equipment/Cables	Figure No.
3-DG-30-155	Yes	Yes	8-41
3-DG-30-156	No	No	8-41
3-DG-30-157	No	No	8-41
3-DG-30-158	Yes	Yes	8-41
3-DG-20-159	Yes	Yes	8-41
3-DG-20-160	Yes	Yes	8-41

FPS **FIRE AREA/ZONE:** 3-DG-30-155

AREA: 2128 sq.ft. **DESCRIPTION:** DIESEL GENERATOR RM. B

DESIGN BASIS FIRE

Fire Loading Category:	Medium
Fire Loading - Max Permiss	160,000.0 Btu's/sq.f

FIRE PROTECTION (AVAILABLE)

Suppression (type)	automatic pre-action sprinkler sys.
Hose Stations	(2),hydrants on fire main
Portable Extinguishers	none, adjacent
Detectors (type)	infrared, ionization

FIRE RESISTANCE RATING

Walls	3hr/156,157,158, HC/160,exterior
Floor, Ceiling, Roof	2hr/ceiling, HC/floor
Penetrations	NC/exterior, NP/exterior
Fixed Openings	OP/exterior, louvers/exterior
Doors	(2) A/3-DG-30-157, (2) A/3-DG-30-156

HOT STANDBY SYSTEMS	**Equipment**	**Valves**	**Cable**
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater			
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems	B,N	B	B

COLD SHUTDOWN SYSTEMS	**Equipment**	**Valves**	**Cable**
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)	B,N	B	B

ESSENTIAL ELECTRIC SYSTEMS	**Equipment**	**MCC and Switchgear**	**Cable**
220 KV (AC)			
4160 V (AC)			B
480 V (AC)		B	B
120 V (AC)	B		
125 V (DC)			
Electric Panels	B		B
Summary	B	B	B

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	YES

FIRE AREA/ZONE 3-DG-30-155

Location

Diesel Generator Building - El. 30'-0" - Diesel Generator Room B - 2128 square feet - Figure 8-41

Fire Loading

Fire loading category - Medium
Maximum permissible fire loading - 160,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible loading is based on an evenly distributed loading of combustible materials.

Design Basis Fire

The design basis fire is postulated to be a fire that would involve mostly diesel fuel and lube oil.

The design basis fire is conservatively based on the simultaneous total combustion of all combustibles in the area.

Fire Protection Equipment

The area contains an automatic pre-action sprinkler system with infrared detector actuation. Actuation of the infrared detectors results in local and control room annunciation. Manual fire fighting equipment is available within the area and outside the east and west entrances to the building. Ionization smoke detectors, located in the area, provide early warning alarm in the control room.

Construction

The north wall, adjoining area 2-DG-30-158, is 3 hour rated reinforced concrete construction. The walls separating the area from the stairwells (3-DG-30-156 and 3-DG-30-157) are also 3 hour rated. The area's exterior walls are nonrated reinforced concrete with an approximate thickness of 3 feet. The ceiling is 2 hour rated. The floor to grade is heavy concrete construction. Two 3 hour rated doors open to the stairwells (3-DG-30-156 and 3-DG-30-157). Louvered ventilation openings communicate with the exterior.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revision of Figure 8-41, sheet 3.

Conclusions

The ionization and infrared detectors are expected to detect the fire in its initial stages of growth and alert the control room for prompt response by the fire department. The activation of the infrared detectors releases a tripping device to open the pre-action valve, allowing water to pressurize the sprinkler system. Sprinkler flow is initiated when further rise in ambient temperature causes the fusible links on the closed sprinkler heads to melt.

The design basis fire is insufficient to breach the fire barriers which separate the area from adjacent areas.

Fire Area 3-DG-30-155 Appendix R Compliance

Safe shutdown capability will be provided by utilizing Train A systems. Functionally redundant components protected from fire damage will be utilized in conjunction with operator action on manual or disabled components to achieve safe shutdown.

One train of systems necessary to achieve hot standby and cold shutdown conditions independent of the subject fire area will be free of fire damage. Therefore, this fire area complies with the criteria of 10CFR50, Appendix R, III.G.1.

FPS | **FIRE AREA/ZONE:** 3-DG-30-156

AREA: 220 sq.ft. **DESCRIPTION:** STAIRCASE

DESIGN BASIS FIRE

Fire Loading Category:	Minimal
Fire Loading - Max Permiss	160,000.0 Btu's/sq.f

FIRE PROTECTION (AVAILABLE)

Suppression (type)	none
Hose Stations	none
Portable Extinguishers	yes, adjacent
Detectors (type)	none

FIRE RESISTANCE RATING

Walls	3hr/155,158, HC/exterior
Floor, Ceiling, Roof	2hr/ceiling, HC/floor
Penetrations	C
Fixed Openings	none
Doors	X/exterior, (2)A/3-DG-30-155,,(2) A/3-DG-30-158

HOT STANDBY SYSTEMS

	Equipment	Valves	Cable
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater			
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS

	Equipment	Valves	Cable
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)			

ESSENTIAL ELECTRIC SYSTEMS

	Equipment	MCC and Switchgear	Cable
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			
Summary			

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	NO

FPS

FIRE AREA/ZONE: 3-DG-30-157

AREA: 220 sq.ft. **DESCRIPTION:** STAIRCASE

DESIGN BASIS FIRE

Fire Loading Category:	Minimal
Fire Loading - Max Permiss	160,000.0 Btu's/sq.f

FIRE PROTECTION (AVAILABLE)

Suppression (type)	none
Hose Stations	none
Portable Extinguishers	yes, adjacent
Detectors (type)	none

FIRE RESISTANCE RATING

Walls	3hr/155,158, HC/exterior
Floor, Ceiling, Roof	2hr/ceiling, HC/floor
Penetrations	C
Fixed Openings	none
Doors	X/exterior, (2) A/3-DG-30-155,,(2) A/3-DG-30-158

HOT STANDBY SYSTEMS

	Equipment	Valves	Cable
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater			
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS

	Equipment	Valves	Cable
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)			

ESSENTIAL ELECTRIC SYSTEMS

	Equipment	MCC and Switchgear	Cable
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			
Summary			

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	NO

FPS **FIRE AREA/ZONE:** 3-DG-30-158

AREA: 2128 sq.ft. **DESCRIPTION:** DIESEL GENERATOR RM. A

DESIGN BASIS FIRE

Fire Loading Category:	Medium
Fire Loading - Max Permiss	160,000.0 Btu's/sq.f

FIRE PROTECTION (AVAILABLE)

Suppression (type)	automatic pre-action sprinkler sys.
Hose Stations	(2),hydrants on fire main
Portable Extinguishers	none, adjacent
Detectors (type)	infrared, ionization

FIRE RESISTANCE RATING

Walls	3hr/155,156,157, HC/159,exterior
Floor, Ceiling, Roof	2hr/ceiling, HC/floor
Penetrations	NC/exterior, NP/exterior
Fixed Openings	OP/exterior, louvers/exterior
Doors	(2) A/3-DG-30-157, (2) A/3-DG-30-156

HOT STANDBY SYSTEMS	**Equipment**	**Valves**	**Cable**
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater			
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems	A,N	A,A*	A

COLD SHUTDOWN SYSTEMS	**Equipment**	**Valves**	**Cable**
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)	A,N	A,A*	A

ESSENTIAL ELECTRIC SYSTEMS	**Equipment**	**MCC and Switchgear**	**Cable**
220 KV (AC)			
4160 V (AC)			A
480 V (AC)		A	A
120 V (AC)	A		
125 V (DC)			
Electric Panels	A		A
Summary	A	A	A

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	YES

FIRE AREA/ZONE 3-DG-30-158

Location

Diesel Generator Building - El. 30'-0" - Diesel Generator Room A - 2128 square feet - Figure 8-41

Fire Loading

Fire loading category - Medium
Maximum permissible fire loading - 160,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible loading is based on an evenly distributed loading of combustible materials.

Design Basis Fire

The design basis fire is postulated to be a fire that would involve mostly diesel fuel and lube oil.

The design basis fire is conservatively based on the simultaneous total combustion of all combustibles in the area.

Fire Protection Equipment

The area contains an automatic pre-action sprinkler system with infrared detector actuation. Actuation of the infrared detectors results in local and control room annunciation. Manual fire fighting equipment is available within the area or outside the east and west entrances to the building. Ionization smoke detectors, located in the area, provide early warning alarm in the control room.

Construction

The south wall, adjoining 3-DG-30-155, is 3 hour rated reinforced concrete construction. The walls separating the area from the stairwells (3-DG-30-156 and 3-DG-30-157) are also 3 hour rated. The area's exterior walls are nonrated reinforced concrete with an approximate thickness of 3 feet. Two 3 hour rated doors open to the stairwells (3-DG-30-156 and 3-DG-30-157). Louvered ventilation openings communicate with the exterior. The ceiling is 2 hour rated concrete construction. The floor to grade is nonrated heavy concrete construction.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revision of Figure 8-41, sheet 3.

Conclusions

The ionization and infrared detectors are expected to detect the fire in its initial stages of growth and alert the control room for prompt response by the fire department. The activation of the infrared detectors releases a tripping device to open the pre-action valve, allowing water to pressurize the sprinkler system. Sprinkler flow is initiated when further rise in ambient temperature causes the fusible links on the closed sprinkler heads to melt.

The design basis fire is insufficient to breach the fire barriers which separate the area from adjacent areas.

Fire Area 3-DG-30-158 Appendix R Compliance

Safe shutdown capability will be provided by utilizing Train B systems. Functionally redundant components protected from fire damage will be utilized in conjunction with operator action on manual or disabled components to achieve safe shutdown.

One train of systems necessary to achieve hot standby and cold shutdown conditions independent of the subject fire area will be free of fire damage. Therefore, this fire area complies with the criteria of 10CFR50, Appendix R, III.G.1.

FPS **FIRE AREA/ZONE:** 3-DG-20-159

AREA: 345 sq.ft. **DESCRIPTION:** DIESEL FUEL TRANSFER PUMP RM. A

DESIGN BASIS FIRE

Fire Loading Category:	Minimal
Fire Loading - Max Permiss	13,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	none
Hose Stations	hydrants on fire main
Portable Extinguishers	yes, adjacent
Detectors (type)	none

FIRE RESISTANCE RATING

Walls	south 3hr, others HC
Floor, Ceiling, Roof	2hr/ceiling, HC/floor
Penetrations	P, C, NP/exterior
Fixed Openings	CH/exterior, OH/exterior, MH/exterior
Doors	none

HOT STANDBY SYSTEMS

	Equipment	Valves	Cable
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater			
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems	A,N		A

COLD SHUTDOWN SYSTEMS

	Equipment	Valves	Cable
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)	A,N		A

ESSENTIAL ELECTRIC SYSTEMS

	Equipment	MCC and Switchgear	Cable
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			A
Summary			A

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	YES

FIRE AREA/ZONE 3-DG-20-159

Location

Outside Diesel Generator Building - El. 20'-0" - Diesel Fuel Transfer Pump Room A - 345 square feet - Figure 8-41

Fire Loading

Fire loading category - Minimal
Maximum permissible fire loading - 13,000 Btu/sq. ft.

Note: Diesel Fuel Storage Tank is located directly below the transfer pump room and is not postulated to contribute to the design basis fire.

Design Basis Fire

A fire is not expected to occur in this area during normal operation. The maximum credible fire is postulated to involve transient combustible materials.

Fire Protection Equipment

There is no fire fighting or fire detection equipment in the area. Manual fire fighting equipment is available outside the west entrance to the diesel generator building. Hose streams are available from yard hydrants or portable equipment.

Construction

The area is entirely below ground. The south wall, which separates the area from the redundant fuel transfer pump room, is reinforced concrete with a 3 hour rating. The north, west, and east walls are reinforced concrete construction with an approximate thickness of 18 inches. The ceiling is 2 hour rated. The floor to grade is nonrated heavy concrete construction. The area is accessed through hatches at ground level.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104 refer to the latest revision of Figure 8-41, sheet 3.

Conclusions

The design basis fire is insufficient to breach the fire barriers which separate the area from adjacent areas.

Fire Area 3-DG-20-159 Appendix R Compliance

Safe shutdown capability will be provided by utilizing Train B systems. Functionally redundant components protected from fire damage will be utilized in conjunction with operator action on manual or disabled components to achieve safe shutdown.

One train of systems necessary to achieve hot standby and cold shutdown conditions independent of the subject fire area will be free of fire damage. Therefore, this fire area complies with the criteria of 10CFR50, Appendix R, III.G.1.

FPS **FIRE AREA/ZONE:** 3-DG-20-160

AREA: 345 sq.ft. **DESCRIPTION:** DIESEL FUEL TRANSFER PUMP RM. B

DESIGN BASIS FIRE

Fire Loading Category:	Minimal
Fire Loading - Max Permiss	13,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	none
Hose Stations	hydrants on fire main
Portable Extinguishers	yes, adjacent
Detectors (type)	none

FIRE RESISTANCE RATING

Walls	north 3hr, others HC
Floor, Ceiling, Roof	2hr/ceiling, HC/floor
Penetrations	P, C, NP/exterior
Fixed Openings	CH/exterior, MH/exterior, OH/exterior
Doors	none

HOT STANDBY SYSTEMS	**Equipment**	**Valves**	**Cable**
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater			
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems	B,N		B

COLD SHUTDOWN SYSTEMS	**Equipment**	**Valves**	**Cable**
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)	B,N		B

ESSENTIAL ELECTRIC SYSTEMS	**Equipment**	**MCC and Switchgear**	**Cable**
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			B
Summary			B

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	YES

FIRE AREA/ZONE 3-DG-20-160

Location

Outside Diesel Generator Building - El. 20'-0" - Diesel Fuel Transfer Pump Room B - 345 square feet - Figure 8-41

Fire Loading

Fire loading category - Minimal
Maximum permissible fire loading - 13,000 Btu/sq. ft.

Note: Diesel Fuel Storage Tank is located directly below the transfer pump room and is not postulated to contribute to the design basis fire.

Design Basis Fire

A fire is not expected to occur in this area during normal operation. The maximum credible fire is postulated to involve transient combustible materials.

Fire Protection Equipment

There is no fire fighting or fire detection equipment in the area. Manual fire fighting equipment is available outside the west entrance to the diesel generator building. Hose streams are available from yard hydrants or portable equipment.

Construction

The area is entirely below ground. The north wall, which separates the area from the redundant fuel transfer pump room, is reinforced concrete with a 3 hour rating. The east, south, and west walls are reinforced concrete construction with an approximate thickness of 18 inches. The ceiling is 2 hour rated. The floor to grade is nonrated heavy concrete construction. The area is accessed through hatches at ground level.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revision of Figure 8-41, sheet 3.

Conclusions

The design basis fire is insufficient to breach the fire barriers which separate the area from adjacent areas.

Fire Area 3-DG-20-160 Appendix R Compliance

Safe shutdown capability will be provided by utilizing Train A systems. Functionally redundant components protected from fire damage will be utilized in conjunction with operator action on manual or disabled components to achieve safe shutdown.

One train of systems necessary to achieve hot standby and cold shutdown conditions independent of the subject fire area will be free of fire damage. Therefore, this fire area complies with the criteria of 10CFR50, Appendix R, III.G.1.

Section 3TK
Tab

UNIT 3 TANK BUILDING

The Unit 3 Tank Building is a separate building which houses auxiliary feedwater pumps, refueling water storage tanks, and the condensate storage tanks. The Tank Building is divided into (5) fire areas. Each of these fire areas is separated from the others by fire resistant and heavy concrete barriers.

The Tank Building contains part of or all of the following systems, which can be used for, or support, safe shutdown and cooldown:

- Auxiliary Feedwater
- Emergency Chilled Water
- Main Steam
- Electrical Panels
- Engineered Safety Features
- Chemical and Volume Control

The types of fire protection/detection equipment available in or near this building consists of the following:

- Portable extinguishers.
- A pre-action sprinkler system is provided to protect the auxiliary feedwater pumps.
- Deluge systems are provided to protect auxiliary feedwater pumps P-504 and P-140.
- Smoke, infrared, and fixed temperature rate of rise heat detectors.
- Hose streams from yard hydrants or portable equipment.

Fire Area/Zone	Contains Safe Shutdown Equipment/Cables	Contains Safety-Related Equipment/Cables	Figure No.
3-TK-30-161A	Yes	Yes	8-41
3-TK-(-2)-161B	Yes	Yes	8-27, 8-28, 8-32, 8-41
3-TK-18-161C	Yes	Yes	8-41
3-TK-25-161D	Yes	Yes	8-41
3-TK-25-161E	Yes	Yes	8-41
3-TK-30-163	Yes	Yes	8-41
3-TK-30-164	Yes	Yes	8-41
3-TK-30-165	Yes	No	8-41
3-TK-30-166	Yes	Yes	8-41

FPS

FIRE AREA/ZONE: 3-TK-30-161A

AREA: 1725 sq.ft. **DESCRIPTION:** AFW PUMP RM.

DESIGN BASIS FIRE

Fire Loading Category:	Low
Fire Loading - Max Permiss	160,000.0 Btu's/sq.f

FIRE PROTECTION (AVAILABLE)

Suppression (type)	pre-action sprinkler, deluge P-504, P-140
Hose Stations	none, hydrant on yard main
Portable Extinguishers	yes
Detectors (type)	infrared, ionization, local heat detectors

FIRE RESISTANCE RATING

Walls	HC
Floor, Ceiling, Roof	HC
Penetrations	NP/ext, NC/ext, P, C, NP/145B
Fixed Openings	louvers, OH/161B, OP/exterior, NP/163, NP/145B
Doors	(2)NR/exterior

HOT STANDBY SYSTEMS

	Equipment	Valves	Cable
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC	A,B		A,B
Auxiliary Feedwater	A,B,C,N	A,B,C,N	A,B,C
Engineered Safety Feature			A,B,C,D
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS

	Equipment	Valves	Cable
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)	A,B,C,N	A,B,C,N	A,B,C,D

ESSENTIAL ELECTRIC SYSTEMS

	Equipment	MCC and Switchgear	Cable
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels	A,B,C		A,B,C
Summary	A,B,C		A,B,C

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	YES

FIRE AREA/ZONE 3-TK-30-161A

Location

Tank Building - El. 30'-0" - Auxiliary Feedwater Pump Room - 1725 square feet - Figure 8-41

Fire Loading

Fire loading category - Low
Maximum permissible fire loading - 160,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible fire loading is based on an evenly distributed loading of combustible materials.

Design Basis Fire

The design basis fire is postulated to be a fire that would involve mostly cable insulation and oil.

The design basis fire is conservatively based on the simultaneous total combustion of all combustibles in the zone.

Fire Protection Equipment

The zone contains an automatic pre-action sprinkler system, with infrared flame detector actuation. Water spray systems, with fixed temperature rate of rise actuation, are provided for auxiliary feedwater pumps P-504 and P-140. Actuation by the heat detectors or the infrared detectors results in control room annunciation. Manual fire fighting equipment is located within the zone. An ionization smoke detector, located in the zone, provides early warning alarm in the control room.

Construction

The floor, ceiling and walls are nonrated reinforced concrete construction with an approximate thickness of 2 feet. A partial height fire partition separates auxiliary feedwater pumps P-504 and P-141. Two nonrated doors open to the exterior. The area has a double wall interface with 3-142B, on the north. Two manholes and a cable vault (fire zones 161C, D, and E) comprise the interface.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revision of Figure 8-41, sheet 3.

Conclusions

The ionization and infrared detectors are expected to detect the fire in its initial stages of growth and alert the control room for prompt response by the fire department. The fire department then enters the pump room and extinguishes the fire with portable equipment or manually actuates the water spray systems as needed to protect safe shutdown equipment. The activation of the infrared detectors releases a tripping device to open the pre-action valve, allowing water to pressurize the sprinkler system. Sprinkler flow is initiated when the further rise in ambient temperature causes the fusible links on the closed sprinkler heads to melt. Water spray systems with fixed temperature rate of rise actuation are installed locally over Pumps P-504 and P-140 to prevent propagation of a pump fire to involve more than one auxiliary feedwater pump. Pump P-141 is protected by a partial height concrete fire partition, which protects it from redundant pumps.

The closed gravity feed lube oil system is installed in this zone to provide adequate lubrication of the auxiliary feedwater pump motor bearings in the event steam supply line to pump P-140 driver breaks. This system consists of an oil supply tank located on the roof for each motor to Train A and B pumps, fusible link oil release valves, and a gravity drain tank by each motor. The rise in ambient temperature above 212°F due to the steam line break or a fire will cause the fusible link valves to open. Following this, combustible oil will be fed through the pump bearings and to a collection tank at the total rate of 2.68 gpm. The maximum amount of the oil introduced into the room is 120 gallons. This amount of oil will increase fire loading in the room by approximately 9,240 BTU/sq. ft. A metal shroud is provided around the turbine driven AFW pump lube oil system, in order to protect the adjacent pumps from oil spray, which could create a fire hazard in the event of a lube oil line rupture.

The smoke generated by the design basis fire will be vented through the openings in the exterior wall. Portable smoke exhaust fans may be used if additional smoke removal capability is required.

Loss of one train of the auxiliary feedwater pumps and HVAC units is to be expected as a result of the postulated design basis fire. At least one auxiliary feedwater pump will remain available.

The fire area/zone boundaries were evaluated. The design basis fire is insufficient to breach the barriers defining the zone/fire area.

Fire Area 3-TK-(-2)-161 Appendix R Compliance

Safe shutdown capability will be provided by utilizing Train A or B systems. Safe shutdown analysis demonstrates that Train A or B AFW systems may be disabled by fire. At least one of the trains will remain available. Functionally redundant components will remain available and will be utilized in conjunction with operator action on manual or disabled components to achieve safe shutdown.

One train of systems necessary to achieve hot standby and cold shutdown for a fire in area 3-161 has been evaluated to remain available for safe shutdown in accordance with 10CFR50, Appendix R, III.G.1 and III.G.2.b and c. A deviation from the requirements of 10CFR50 Appendix R, III.G.2.b has been requested for intervening combustibles between the auxiliary feedwater pumps and valves in zone 3-TK-30-161A. A deviation from the requirements of 10CFR50 Appendix R, III.G.2.c has been requested for one hour wrap without automatic suppression and detection in zone 3-TK-(-2)-161B. The fire detection and suppression systems in these areas/zones were evaluated and shown to provide a level of protection equivalent to the requirements of the applicable sections of Appendix R.

FPS | **FIRE AREA/ZONE:** 3-TK-(-2)-161B

AREA: 2506 sq.ft. | **DESCRIPTION:** AFW PIPE TUNNEL

DESIGN BASIS FIRE

Fire Loading Category:	Minimal
Fire Loading - Max Permiss	13,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	none
Hose Stations	none
Portable Extinguishers	none, adjacent
Detectors (type)	none

FIRE RESISTANCE RATING

Walls	3hr/136,137A,138,142B, others HC
Floor, Ceiling, Roof	2hr/142A, 142B, 145B, 173, 176, HC/161A, grade
Penetrations	SG, P, C, QP/136, QP/138, NP/176
Fixed Openings	OH/161A, OP/176
Doors	none

HOT STANDBY SYSTEMS	**Equipment**	**Valves**	**Cable**
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam		A,B	A,B
HVAC			
Auxiliary Feedwater	A,B,N	A,B	a,A,B
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS	**Equipment**	**Valves**	**Cable**
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)	A,B,N	A,B	a,A,B

ESSENTIAL ELECTRIC SYSTEMS	**Equipment**	**MCC and Switchgear**	**Cable**
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			A,B
Summary			A,B

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	NO

FIRE AREA/ZONE 3-TK-(-2)-161B

Location

Tank Building - El. (-2-6') - Auxiliary Feedwater Pipe Tunnel - 2506 square feet - Figures 8-27, 8-28, 8-32, 8-41

Fire Loading

Fire loading category - Minimal
Maximum permissible fire loading - 13,000 Btu/sq. ft.

Design Basis Fire

A fire is not expected to occur during normal operations. The maximum credible fire is postulated to involve transient combustible materials.

Fire Protection Equipment

No fire fighting or fire detection equipment is provided within the zone. Manual fire fighting equipment is available in adjacent zone 3-TK-30-161A.

Construction

The walls separating the zone from 3-CT-(-2)-142B, 3-SE-(-15)-136, 3-SE-(-15)-137A, and 3-SE-(-15)-138 (single wall section), are three hour rated heavy concrete barriers. The walls to 3-TK-30-161A, 3-SE-(-2)-176 and 3-SE-(-15)-138 (double wall section), as well as to the exterior are nonrated heavy concrete barriers, approximately 18 inches thick. The wall to containment is also nonrated heavy concrete but is approximately 4' thick. The floor and ceiling barriers are two hour rated except those that go to the exterior which are nonrated heavy concrete. The zone is open to the auxiliary feedwater pump room (3-TK-30-161A).

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revisions of Figures 8-27, 8-28, 8-32, and 8-41, sheet 3.

Cable for the system is wrapped:

Auxiliary Feedwater - Train A (3HV-4730)

Conclusions

Propagation of the transient combustible fire through the open access hatch to adjacent zone 3-TK-30-161A is postulated, but is not expected to occur. Safe shutdown systems in the zone above (i.e., 3-161A) are protected by infrared and ionization detectors, and an automatic pre-action sprinkler system.

The fire boundaries between 3-TK-(-2)-161B and 3-SE-(-2)-176, 3-SE-(-15)-136 and 3-SE-(-15)-138 were evaluated. The fire boundaries and associated fire protection features were found to be adequate to prevent the propagation of fire beyond the fire boundaries.

The design basis fire is insufficient to breach the barriers defining the zone/fire area.

Southern California Edison has committed to wrap the control cables for the Train A AFW isolation valve in this fire zone. A deviation from the requirements of 10CFR50 Appendix R, III.G.2.c has been requested for one hour wrap without automatic suppression and detection in zone 3-TK-(-2)-161B. The fire detection and suppression systems in these areas/zones were evaluated and shown to provide a level of protection equivalent to the requirements of the applicable sections of Appendix R.

Appendix R compliance for fire area 3-TK-(-2)-161 is discussed in fire zone 3-TK-30-161A.

FPS **FIRE AREA/ZONE:** 3-TK-18-161C

AREA: 85 sq.ft. **DESCRIPTION:** AFW PUMP ROOM CABLE VAULT

DESIGN BASIS FIRE

Fire Loading Category:	Low
Fire Loading - Max Permiss	80,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	NONE
Hose Stations	NONE
Portable Extinguishers	NONE, ADJACENT
Detectors (type)	NONE

FIRE RESISTANCE RATING

Walls	3HR/142B HC/OTHERS
Floor, Ceiling, Roof	HC/FLOOR
Penetrations	D,C
Fixed Openings	OH
Doors	NONE

HOT STANDBY SYSTEMS	Equipment	Valves	Cable
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			B
Auxiliary Feedwater			A,B
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS	Equipment	Valves	Cable
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)			A,B

ESSENTIAL ELECTRIC SYSTEMS	Equipment	MCC and Switchgear	Cable
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			A,B
Summary			A,B

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	NO

FIRE AREA/ZONE 3-TK-18-161C

Location

Tank Building - El. 18'-0" Auxiliary Feedwater Pump Room cable vault - 85 square feet - Fig. 8-26-

Fire Loading

Fire loading category - Low
Maximum permissible fire loading - 80,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible fire loading is based on an evenly distributed loading of combustible materials.

Design Basis Fire

The design basis fire is postulated to be a fire that would involve mostly cable insulation.

Fire Protection Equipment

Manual fire fighting equipment is available within fire zone 3-161A.

Construction

The floor, and three walls are nonrated reinforced concrete construction with an approximate thickness of 2 feet. The north wall is three hour rated and separates the zone from 3-142B. The ceiling is open to 3-161A.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revision of Figure 8-26, sheet 3.

Conclusions

The fire area boundaries between 3-TK-18-161C and 3-CT-(-2)-142B was evaluated. The fire boundaries and associated fire protection features were found to be adequate to prevent the propagation of fire beyond the fire boundaries.

The design basis fire is insufficient to breach the barriers defining the zone/fire area.

Appendix R compliance for fire area 3-TK-(-2)-161 is discussed in fire zone 3-TK-30-161A.

FPS **FIRE AREA/ZONE:** 3-TK-25-161D

AREA: 50 sq.ft. **DESCRIPTION:** AFW PUMP ROOM MANHOLE

DESIGN BASIS FIRE

Fire Loading Category:	Minimal
Fire Loading - Max Permiss	80,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	NONE
Hose Stations	NONE
Portable Extinguishers	NONE, ADJACENT
Detectors (type)	NONE

FIRE RESISTANCE RATING

Walls	3HR/142B, HC/OTHERS
Floor, Ceiling, Roof	HC/FLOOR, CEILING MH/CEILING
Penetrations	C
Fixed Openings	MH
Doors	NONE

HOT STANDBY SYSTEMS	Equipment	Valves	Cable
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			B
Auxiliary Feedwater			B,C
Engineered Safety Feature			B
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS	Equipment	Valves	Cable
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)			B,C

ESSENTIAL ELECTRIC SYSTEMS	Equipment	MCC and Switchgear	Cable
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			B,C
Summary			B,C

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	NO

FIRE AREA/ZONE 3-TK-25-161D

Location

Tank Building - El. 25'-0" Auxiliary Feedwater Pump Room Manhole - 50 square feet - Fig. 8-26-

Fire Loading

Fire loading category - Minimal
Maximum permissible fire loading - 80,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible fire loading is based on an evenly distributed loading of combustible materials.

Design Basis Fire

The design basis fire is postulated to be a fire that would involve mostly cable insulation.

Fire Protection Equipment

Manual fire fighting equipment is available within fire zone 3-161A.

Construction

The floor, ceiling, and three walls are nonrated reinforced concrete construction with an approximate thickness of 2 feet. The north wall is three hour rated and separates the zone from 3-142B. A three foot diameter steel manhole cover provides access from zone 3-161A.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revision of Figure 8-26, sheet 3.

Conclusions

The fire area boundaries between 3-TK-25-161D and 3-CT-(-2)-142B was evaluated. The fire boundaries and associated fire protection features were found to be adequate to prevent the propagation of fire beyond the fire boundaries.

The design basis fire is insufficient to breach the barriers defining the zone/fire area.

Appendix R compliance for fire area 3-TK-(-2)-161 is discussed in fire zone 3-TK-30-161A.

FPS **FIRE AREA/ZONE:** 3-TK-25-161E

AREA: 70 sq.ft. **DESCRIPTION:** AFW PUMP ROOM MANHOLE

DESIGN BASIS FIRE

Fire Loading Category:	Minimal
Fire Loading - Max Permiss	80,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	NONE
Hose Stations	NONE
Portable Extinguishers	NONE, ADJACENT
Detectors (type)	NONE

FIRE RESISTANCE RATING

Walls	3HR/142B, HC/OTHERS
Floor, Ceiling, Roof	HC/FLOOR, CEILING MH/CEILING
Penetrations	C
Fixed Openings	MH
Doors	NONE

HOT STANDBY SYSTEMS	Equipment	Valves	Cable
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			A
Auxiliary Feedwater			A,C
Engineered Safety Feature			A
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS	Equipment	Valves	Cable
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)			A,C

ESSENTIAL ELECTRIC SYSTEMS	Equipment	MCC and Switchgear	Cable
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			A,C
Summary			A,C

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	NO

FIRE AREA/ZONE 3-TK-25-161E

Location

Tank Building - El. 25'-0" Auxiliary Feedwater Pump Room Manhole - 70 square feet - Fig. 8-26-

Fire Loading

Fire loading category - Minimal
Maximum permissible fire loading - 80,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible fire loading is based on an evenly distributed loading of combustible materials.

Design Basis Fire

The design basis fire is postulated to be a fire that would involve mostly cable insulation.

Fire Protection Equipment

Manual fire fighting equipment is available within fire zone 3-161A.

Construction

The floor, ceiling, and three walls are nonrated reinforced concrete construction with an approximate thickness of 2 feet. The north wall is three hour rated and separates the zone from 3-142B. A three foot diameter steel manhole cover provides access from zone 3-161A.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revision of Figure 8-26, sheet 3.

Conclusions

The fire area boundaries between 3-TK-25-161E and 3-CT-(-2)-142B was evaluated. The fire boundaries and associated fire protection features were found to be adequate to prevent the propagation of fire beyond the fire boundaries.

The design basis fire is insufficient to breach the barriers defining the zone/fire area.

Appendix R compliance for fire area 3-TK-(-2)-161 is discussed in fire zone 3-TK-30-161A.

FPS **FIRE AREA/ZONE:** 3-TK-30-163

AREA: 1087 sq.ft. **DESCRIPTION:** REFUEL WTR. STORAGE TK.

DESIGN BASIS FIRE

Fire Loading Category:	Minimal
Fire Loading - Max Permiss	13,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	none
Hose Stations	none, hydrant on yard main
Portable Extinguishers	none
Detectors (type)	none

FIRE RESISTANCE RATING

Walls	HC
Floor, Ceiling, Roof	floor HC, no roof
Penetrations	P, C, NC/161A, NP/161A
Fixed Openings	none
Doors	none

HOT STANDBY SYSTEMS	**Equipment**	**Valves**	**Cable**
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control	N		
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater		N	A,B
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS	**Equipment**	**Valves**	**Cable**
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)	N	N	A,B

ESSENTIAL ELECTRIC SYSTEMS	**Equipment**	**MCC and Switchgear**	**Cable**
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			
Summary			

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	NO

FIRE AREA/ZONE 3-TK-30-163

Location

Tank Building - El. 30'-0" - Refueling Water Storage Tank - 1087 square feet - Figure 8-41

Fire Loading

Fire loading category - Minimal
Maximum permissible fire loading - 13,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible fire loading is based on an evenly distributed loading of combustible materials.

Design Basis Fire

The design basis fire is postulated to be a fire that would involve mostly cable insulation.

The design basis fire is conservatively based on the simultaneous total combustion of all combustibles in the area.

Fire Protection Equipment

There is no fire fighting or fire detection equipment within the area. Manual hose streams are available from yard hydrants or portable equipment.

Construction

The walls defining the area are nonrated reinforced concrete construction with an approximate thickness of 2 feet. The floor is heavy concrete construction. No roof is provided.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revision of Figure 8-41, sheet 3.

Conclusions

The available portable equipment is adequate to extinguish the fire.

The low fire loading and the substantial construction of the heavy concrete walls preclude the propagation of the design basis fire beyond the boundaries defining the area.

Fire Area 3-TK-30-163 Appendix R Compliance

Safe shutdown capability will be provided by utilizing Train A or B systems. Functionally redundant components protected from fire damage will be utilized in conjunction with operator action on manual or disabled components to achieve safe shutdown.

One train of systems necessary to achieve hot standby and cold shutdown conditions independent of the subject fire area will be free of fire damage. Therefore, this fire area complies with the criteria of 10CFR50, Appendix R, III.G.1.

FPS **FIRE AREA/ZONE:** 3-TK-30-164

AREA: 743 sq.ft. **DESCRIPTION:** CONDENSATE STORAGE TK.

DESIGN BASIS FIRE

Fire Loading Category:	Minimal
Fire Loading - Max Permiss	13,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	none
Hose Stations	none, hydrant on yard main
Portable Extinguishers	none
Detectors (type)	none

FIRE RESISTANCE RATING

Walls	HC
Floor, Ceiling, Roof	HC
Penetrations	P, C, NC/exterior, NP/exterior
Fixed Openings	none
Doors	NR/exterior

HOT STANDBY SYSTEMS	**Equipment**	**Valves**	**Cable**
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater	N	N	A,B
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS	**Equipment**	**Valves**	**Cable**
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)	N	N	A,B

ESSENTIAL ELECTRIC SYSTEMS	**Equipment**	**MCC and Switchgear**	**Cable**
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			
Summary			

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	NO

FIRE AREA/ZONE 3-TK-30-164

Location

Tank Building - El. 30'-0" - Condensate Storage Tank - 743 square feet - Figure 8-41

Fire Loading

Fire loading category - Minimal
Maximum permissible fire loading - 13,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible fire loading is based on an evenly distributed loading of combustible materials.

Design Basis Fire

The design basis fire is postulated to be a fire that would involve mostly cable insulation.

The design basis fire is conservatively based on the simultaneous total combustion of all combustibles in the area.

Fire Protection Equipment

There is no fire fighting or fire detection equipment within the area. Manual hose streams are available from yard hydrants or portable equipment.

Construction

The walls are nonrated reinforced concrete construction with an approximate thickness of 2 feet. The floor and ceiling are heavy concrete. The exterior door is nonrated.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revision of Figure 8-41, sheet 3.

Conclusions

The available portable equipment is adequate to extinguish the fire.

The low fire loading and the substantial construction of the heavy concrete walls and nonrated doors preclude the propagation of the design basis fire beyond the boundaries defining the area.

Fire Area 3-TK-30-164 Appendix R Compliance

Safe shutdown capability will be provided by utilizing Train A or B systems. Functionally redundant components protected from fire damage will be utilized in conjunction with operator action on manual or disabled components to achieve safe shutdown.

One train of systems necessary to achieve hot standby and cold shutdown conditions independent of the subject fire area will be free of fire damage. Therefore, this fire area complies with the criteria of 10CFR50, Appendix R, III.G.1.

FPS **FIRE AREA/ZONE:** 3-TK-30-165

AREA: 1002 sq.ft. **DESCRIPTION:** CONDENSATE STORAGE TK.

DESIGN BASIS FIRE

Fire Loading Category:	Minimal
Fire Loading - Max Permiss	13,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	none
Hose Stations	none, hydrant on yard main
Portable Extinguishers	none
Detectors (type)	none

FIRE RESISTANCE RATING

Walls	HC
Floor, Ceiling, Roof	HC, no roof
Penetrations	P, C
Fixed Openings	none
Doors	none

HOT STANDBY SYSTEMS	**Equipment**	**Valves**	**Cable**
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control			
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater	N		
Engineered Safety Feature			
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS	**Equipment**	**Valves**	**Cable**
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)	N		

ESSENTIAL ELECTRIC SYSTEMS	**Equipment**	**MCC and Switchgear**	**Cable**
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			
Summary			

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	NO

FIRE AREA/ZONE 3-TK-30-165

Location

Tank Building - El. 30'-0" - Condensate Storage Tank - 1002 square feet - Figure 8-41

Fire Loading

Fire loading category - Minimal
Maximum permissible fire loading - 13,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible fire loading is based on an evenly distributed loading of combustible materials.

Design Basis Fire

The design basis fire is postulated to be a fire that would involve mostly cable insulation.

The design basis fire is conservatively based on the simultaneous total combustion of all combustibles in the area.

Fire Protection Equipment

There is no fire fighting or fire detection equipment within the area. Manual hose streams are available from yard hydrants or portable equipment.

Construction

The area walls are nonrated. The floor is heavy concrete. No roof is provided.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revision of Figure 8-41, sheet 3.

Conclusions

The available portable equipment is adequate to extinguish the fire.

The low fire loading and the substantial construction of the heavy concrete walls preclude the propagation of the design basis fire beyond the boundaries defining the area.

Fire Area 3-TK-30-165 Appendix R Compliance

One train of systems necessary to achieve hot standby and cold shutdown conditions independent of the subject fire area will be free of fire damage. Therefore, this fire area complies with the criteria of 10CFR50, Appendix R, III.G.1.

FPS **FIRE AREA/ZONE:** 3-TK-30-166

AREA: 1091 sq.ft. **DESCRIPTION:** REFUELING WTR. STORAGE TK.

DESIGN BASIS FIRE

Fire Loading Category:	Minimal
Fire Loading - Max Permiss	13,000.0 Btu's/sq.ft.

FIRE PROTECTION (AVAILABLE)

Suppression (type)	none
Hose Stations	none, hydrant on yard main
Portable Extinguishers	none
Detectors (type)	none

FIRE RESISTANCE RATING

Walls	HC
Floor, Ceiling, Roof	floor HC, no roof
Penetrations	P, C, NP/161A,
Fixed Openings	none
Doors	none

HOT STANDBY SYSTEMS	Equipment	Valves	Cable
Reactor Coolant			
Reactor Protection System			
Shutdown Cooling			
Chemical and Volume Control	N		
Main Feedwater			
Main Steam			
HVAC			
Auxiliary Feedwater		A,B	A,B
Engineered Safety Feature			A,B,C,D
Component Cooling Water			
Saltwater Cooling Water			
Emergency Chilled Water			
Diesel Generator Systems			

COLD SHUTDOWN SYSTEMS	Equipment	Valves	Cable
Shutdown Cooling			
CCW (To SDC)			
HVAC			
Summary (Hot and Cold)	N	A,B	A,B,C,D

ESSENTIAL ELECTRIC SYSTEMS	Equipment	MCC and Switchgear	Cable
220 KV (AC)			
4160 V (AC)			
480 V (AC)			
120 V (AC)			
125 V (DC)			
Electric Panels			A,B
Summary			A,B

ASSOCIATED CIRCUITS OF CONCERN

H/I Pressure Interface	NO
Spurious Operation	YES

FIRE AREA/ZONE 3-TK-30-166

Location

Tank Building - El. 30'-0" - Refueling Water Storage Tank - 1091 square feet - Figure 8-41

Fire Loading

Fire loading category - Minimal
Maximum permissible fire loading - 13,000 Btu/sq. ft. (Note 1)

Note 1: The maximum permissible fire loading is based on an evenly distributed loading of combustible materials.

Design Basis Fire

The design basis fire is postulated to be a fire that would involve mostly cable insulation.

The design basis fire is conservatively based on the simultaneous total combustion of all combustibles in the area.

Fire Protection Equipment

There is no fire fighting or fire detection equipment within the area. Manual hose streams are available from yard hydrants or portable equipment.

Construction

The walls of the area are nonrated reinforced concrete construction with an approximate thickness of 2 feet. The floor is heavy concrete. No roof is provided.

Licensee Controlled Specification Barriers

For definition of the barriers requiring surveillance per LCS 3.7.104, refer to the latest revision of Figure 8-41, sheet 3.

Conclusions

The available portable equipment is adequate to extinguish the fire.

The low fire loading and the substantial construction of the barriers preclude the propagation of the design basis fire beyond the boundaries defining the area.

Fire Area 3-TK-30-166 Appendix R Compliance

Safe shutdown capability will be provided by utilizing Train A systems. Functionally redundant components protected from fire damage will be utilized in conjunction with operator action on manual or disabled components to achieve safe shutdown.

One train of systems necessary to achieve hot standby and cold shutdown conditions independent of the subject fire area will be free of fire damage. Therefore, this fire area complies with the criteria of 10CFR50, Appendix R, III.G.1.

Volume 3

Section 8.0
Tab
Drawings

SECTION 8.0

DRAWINGS

Section 8, "Drawings," of the UFHA contains controlled drawings. The set of drawings in Rev. 15 (and subsequent revisions) of the UFHA have been stamped "FOR INFORMATION ONLY". The latest revisions to these controlled drawings may no longer be contained in the UFHA. To obtain the latest revision and/or changes to these drawings, please refer to CDM or the controlled drawings data base (i.e., NCDB/NDMS).

8.0 DRAWINGS

The drawings provided in this section are organized to provide easy access for the users of this report.

SONGS Unit 2 - Fire Area Boundaries

Fig. No.	Sheet No.	Building	Elevation
8-1	1	Containment Structure Penetration Building	9'-0" & 15'-0"
8-2	1	Containment Structure Penetration Building	30'-0"
8-3	1	Containment Structure Penetration Building	45'-0"
8-4	1	Containment Structure Penetration Building	63'-6"
8-5	1	Auxiliary Building (Control Area)	9'-0"
8-6	1	Auxiliary Building (Control Area)	30'-0"
8-7	1	Auxiliary Building (Control Area)	50'-0"
8-8	1	Auxiliary Building (Control Area)	70'-0"
8-9	1	Auxiliary Building (Control Area)	85'-0"
8-10	1	Auxiliary Building (Radwaste Area)	9'-0"
8-11	1	Auxiliary Building (Radwaste Area)	24'-0"
8-12	1	Auxiliary Building (Radwaste Area)	37'-0"
8-13	1	Auxiliary Building (Radwaste Area)	50'-0"
8-14	1	Auxiliary Building (Radwaste Area)	63'-6"
8-14A	1	Auxiliary Building (Radwaste Area)	85'-0"
8-15	1	Safety Equipment Building	(-15'-6") & (-5'-3")
8-16	1	Safety Equipment Building	8'-0"
8-17	1	Safety Equipment Building	30'-6"
8-18	1	Safety Equipment Building	50'-6" & 70'-0"
8-19	1	Fuel Handling Building	17'-6" & 30'-0"
8-20	1	Fuel Handling Building	45'-0" & 63'-6"
8-21	1	Turbine Building	7'-0"
8-22	1	Turbine Building	34'-0" & 43'-0"
8-23	1	Turbine Building	56'-0"
8-24	1	Turbine Building	72'-6"
8-25	1	Cable Tunnel Area	9'-6"
8-26	1	Diesel Generator Building & Tank Building	30'-6"
8-26A	1	Yard Area	30'-0"
8-26B	1	South Yard Facility	30'-0"

Fig. No.	Sheet No.	Building	Elevation
8-1	2	Containment Structure Penetration Building	9'-0" & 15'-0"
8-2	2	Containment Structure Penetration Building	30'-0"
8-3	2	Containment Structure Penetration Building	45'-0"
8-4	2	Containment Structure Penetration Building	63'-6"
8-5	2	Auxiliary Building (Control Area)	9'-0"
8-6	2	Auxiliary Building (Control Area)	30'-0"
8-7	2	Auxiliary Building (Control Area)	50'-0"
8-8	2	Auxiliary Building (Control Area)	70'-0"
8-9	2	Auxiliary Building (Control Area)	85'-0"
8-10	2	Auxiliary Building (Radwaste Area)	9'-0"
8-11	2	Auxiliary Building (Radwaste Area)	24'-0"
8-12	2	Auxiliary Building (Radwaste Area)	37'-0"
8-13	2	Auxiliary Building (Radwaste Area)	50'-0"
8-14	2	Auxiliary Building (Radwaste Area)	63'-6"
8-14A	2	Auxiliary Building (Radwaste Area)	85'-0"
8-15	2	Safety Equipment Building	(-15'-6") & (-5'-3")
8-16	2	Safety Equipment Building	8'-0"
8-17	2	Safety Equipment Building	30'-6"
8-18	2	Safety Equipment Building	50'-6" & 70'-0"
8-19	2	Fuel Handling Building	17'-6" & 30'-0"
8-20	2	Fuel Handling Building	45'-0" & 63'-6"
8-21	2	Turbine Building	7'-0"
8-22	2	Turbine Building	34'-0" & 43'-0"
8-23	2	Turbine Building	56'-0"
8-24	2	Turbine Building	72'-6"
8-25	2	Cable Tunnel Area	9'-6"
8-26	2	Diesel Generator Building & Tank Building	30'-6"
8-26A	2	Yard Area	30'-0"
8-26B	2	South Yard Facility	30'-0"

SONGS Unit 2 - Technical Specification Barriers

Fig. No.	Sheet No.	Building	Elevation
8-1	3	Containment Structure Penetration Building	9'-0" & 15'-0"
8-2	3	Containment Structure Penetration Building	30'-0"
8-3	3	Containment Structure Penetration Building	45'-0"
8-4	3	Containment Structure Penetration Building	63'-6"
8-5	3	Auxiliary Building (Control Area)	9'-0"
8-6	3	Auxiliary Building (Control Area)	30'-0"
8-7	3	Auxiliary Building (Control Area)	50'-0"
8-8	3	Auxiliary Building (Control Area)	70'-0"
8-9	3	Auxiliary Building (Control Area)	85'-0"
8-10	3	Auxiliary Building (Radwaste Area)	9'-0"
8-11	3	Auxiliary Building (Radwaste Area)	24'-0"
8-12	3	Auxiliary Building (Radwaste Area)	37'-0"
8-13	3	Auxiliary Building (Radwaste Area)	50'-0"
8-14	3	Auxiliary Building (Radwaste Area)	63'-6"
8-15	3	Safety Equipment Building	(-15'-6") & (-5'-3")
8-16	3	Safety Equipment Building	8'-0"
8-17	3	Safety Equipment Building	30'-6"
8-18	3	Safety Equipment Building	50'-6" & 70'-0"
8-19	3	Fuel Handling Building	17'-6" & 30'-0"
8-20	3	Fuel Handling Building	45'-0" & 63'-6"
8-21	3	Turbine Building	7'-0"
8-22	3	Turbine Building	34'-0" & 43'-0"
8-23	3	Turbine Building	56'-0"
8-24	3	Turbine Building	72'-6"
8-25	3	Cable Tunnel Area	9'-6"
8-26	3	Diesel Generator Building & Tank Building	30'-6"
8-26A	3	Yard Area	30'-0"

SONGS Unit 2 - Emergency Lighting

Fig. No.	Sheet No.	Building	Elevation
8-1	4	Containment Structure Penetration Building	9'-0" & 15'-0"
8-2	4	Containment Structure Penetration Building	30'-0"
8-3	4	Containment Structure Penetration Building	45'-0"
8-4	4	Containment Structure Penetration Building	63'-6"
8-6	4	Auxiliary Building (Control Area)	30'-0"
8-7	4	Auxiliary Building (Control Area)	50'-0"
8-8	4	Auxiliary Building	70'-0"
8-9	4	Auxiliary Building (Control Area)	85'-0"
8-10	4	Auxiliary Building (Radwaste Area)	9'-0"
8-11	4	Auxiliary Building (Radwaste Area)	24'-0"
8-12	4	Auxiliary Building (Radwaste Area)	37'-0"
8-13	4	Auxiliary Building (Radwaste Area)	50'-0"
8-14	4	Auxiliary Building (Radwaste Area)	63'-6"
8-16	4	Safety Equipment Building	8'-0"
8-17	4	Safety Equipment Building	30'-6"
8-18	4	Safety Equipment Building	50'-6" & 70'-0"
8-21	4	Turbine Building	7'-0"
8-26	4	Diesel Generator Building & Tank Building	30'-6"

SONGS Unit 3 - Fire Area Boundaries

Fig. No.	Sheet No.	Building	Elevation
8-27	1	Containment Structure Penetration Building	9'-0" & 15'-0"
8-28	1	Containment Structure Penetration Building	30'-0"
8-29	1	Containment Structure Penetration Building	45'-0"
8-30	1	Containment Structure Penetration Building	63'-6"
8-31	1	Safety Equipment Building	(-15'-6") & (-5'-3")
8-32	1	Safety Equipment Building	8'-0"
8-33	1	Safety Equipment Building	30'-6"
8-34	1	Safety Equipment Building	50'-6" & 70'-0"
8-35	1	Fuel Handling Building	17'-6" & 30'-0"
8-36	1	Fuel Handling Building	45'-0" & 63'-6"
8-37	1	Turbine Building	7'-0"
8-38	1	Turbine Building	34'-0" & 43'-0"
8-39	1	Turbine Building	56'-0"
8-40	1	Turbine Building	72'-6"
8-41	1	Diesel Generator Building & Tank Building	30'-6"
8-42	1	Cable Tunnel Area	9'-6"

SONGS Unit 3 - Fire Protection Features

Fig. No.	Sheet No.	Building	Elevation
8-27	2	Containment Structure Penetration Building	9'-0" & 15'-0"
8-28	2	Containment Structure Penetration Building	30'-0"
8-29	2	Containment Structure Penetration Building	45'-0"
8-30	2	Containment Structure Penetration Building	63'-6"
8-31	2	Safety Equipment Building	(-15'-6") & (-5'-3")
8-32	2	Safety Equipment Building	8'-0"
8-33	2	Safety Equipment Building	30'-6"
8-34	2	Safety Equipment Building	50'-6" & 70'-0"
8-35	2	Fuel Handling Building	17'-6" & 30'-0"
8-36	2	Fuel Handling Building	45'-0" & 63'-6"
8-37	2	Turbine Building	7'-0"
8-38	2	Turbine Building	34'-0" & 43'-0"
8-39	2	Turbine Building	56'-0"
8-40	2	Turbine Building	72'-6"
8-41	2	Diesel Generator Building & Tank Building	30'-6"
8-42	2	Cable Tunnel Area	9'-6"

SONGS Unit 3 - Technical Specification Barriers

Fig. No.	Sheet No.	Building	Elevation
8-27	3	Containment Structure Penetration Building	9'-0" & 15'-0"
8-28	3	Containment Structure Penetration Building	30'-0"
8-29	3	Containment Structure Penetration Building	45'-0"
8-30	3	Containment Structure Penetration Building	63'-6"
8-31	3	Safety Equipment Building	(-15'-6") & (-5'-3")
8-32	3	Safety Equipment Building	8'-0"
8-33	3	Safety Equipment Building	30'-6"
8-34	3	Safety Equipment Building	50'-6" & 70'-0"
8-35	3	Fuel Handling Building	17'-6" & 30'-0"
8-36	3	Fuel Handling Building	45'-0" & 63'-6"
8-37	3	Turbine Building	7'-0"
8-38	3	Turbine Building	34'-0" & 43'-0"
8-39	3	Turbine Building	56'-0"
8-40	3	Turbine Building	72'-6"
8-41	3	Diesel Generator Building & Tank Building	30'-6"
8-42	3	Cable Tunnel Area	9'-6"

SONGS Unit 3 - Emergency Lighting

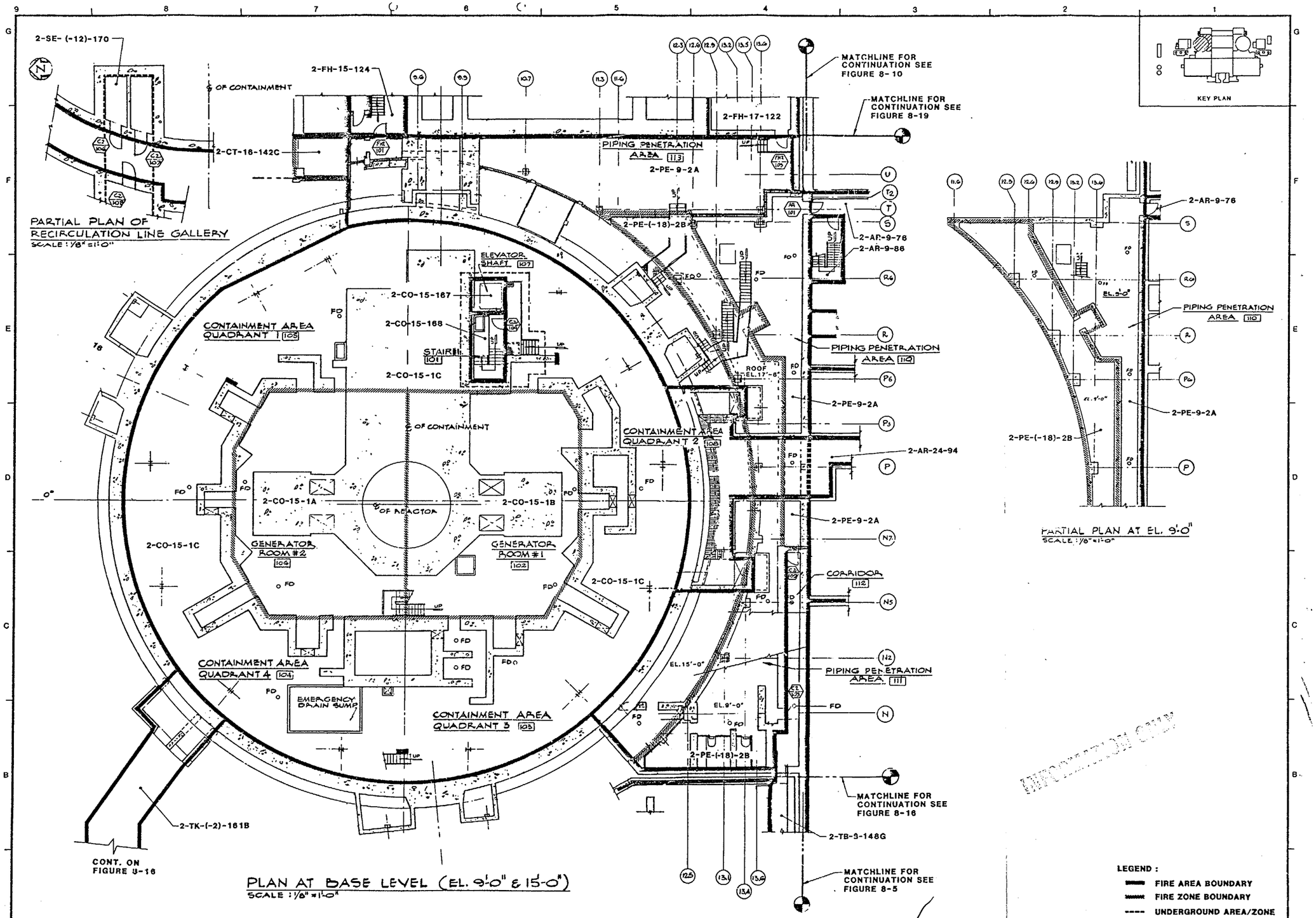
Fig. No.	Sheet No.	Building	Elevation
8-27	4	Containment Structure Penetration Building	9'-0" & 15'-0"
8-28	4	Containment Structure Penetration Building	30'-0"
8-29	4	Containment Structure Penetration Building	45'-0"
8-30	4	Containment Structure Penetration Building	63'-6"
8-32	4	Safety Equipment Building	8'-0"
8-33	4	Safety Equipment Building	30'-6"
8-34	4	Safety Equipment Building	50'-6" & 70'-0"
8-37	4	Turbine Building	7'-0"
8-41	4	Diesel Generator Building & Tank Building	30'-6"

SECTION VIEWS

SONGS Units 2 and 3

Figure No.	Section
8-43	A-A
8-44	B-B
8-45	C-C
8-46	D-D
8-47	E-E
8-48	F-F
8-49	G-G
8-50	H-H

Unit 2
Fire Areas
Tab



REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
0	12 1983	FIRE AREA/ZONE BOUNDARY DEFINITION			

SAN ONOFRE NUCLEAR GENERATING STATION

CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 2 EL. 9'-0" & 15'-0"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-1
REV. 0
SHEET 1 OF 3

83000

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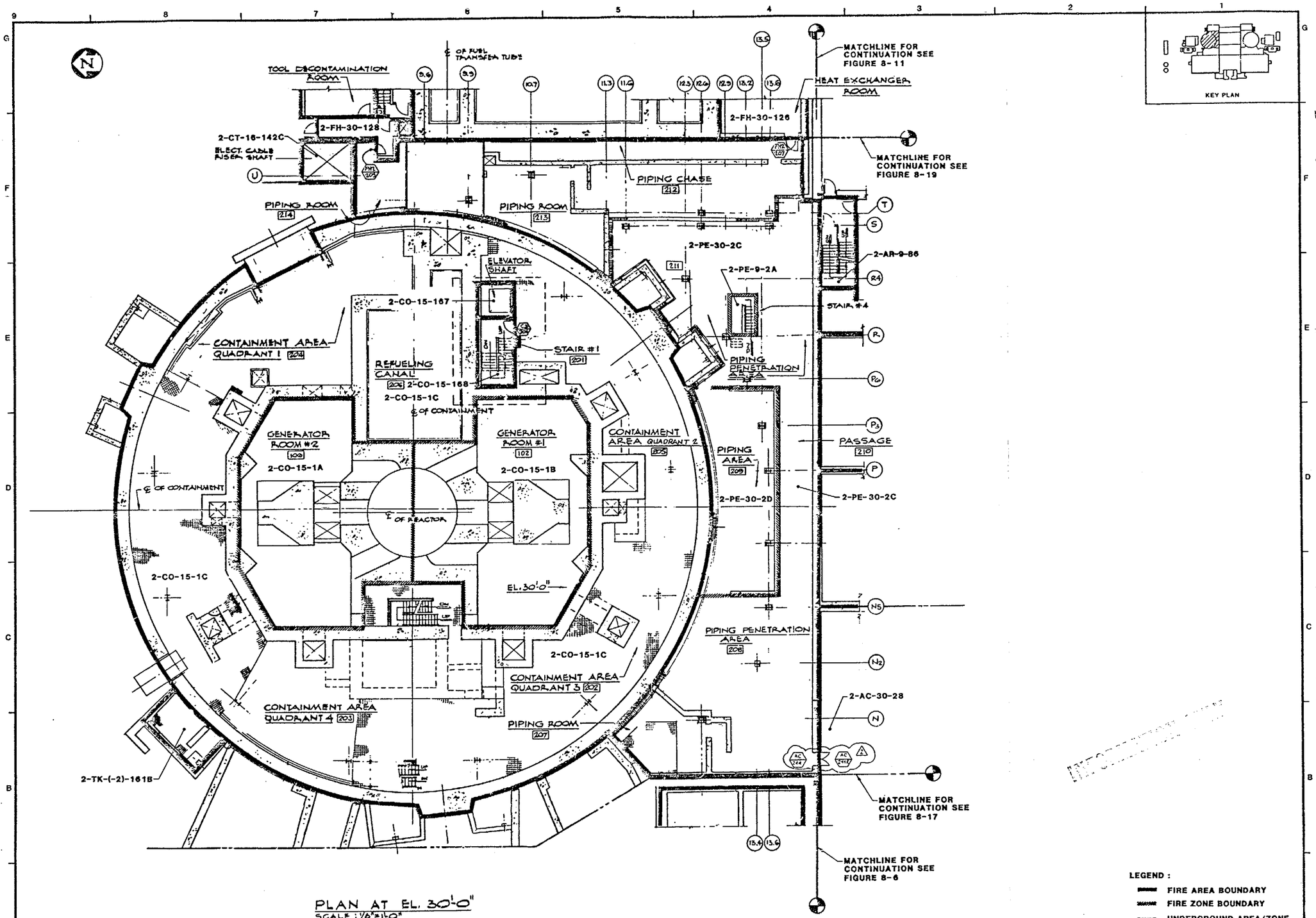


PLAN AT EL. 30'-0"
SCALE: 1/8"=1'-0"

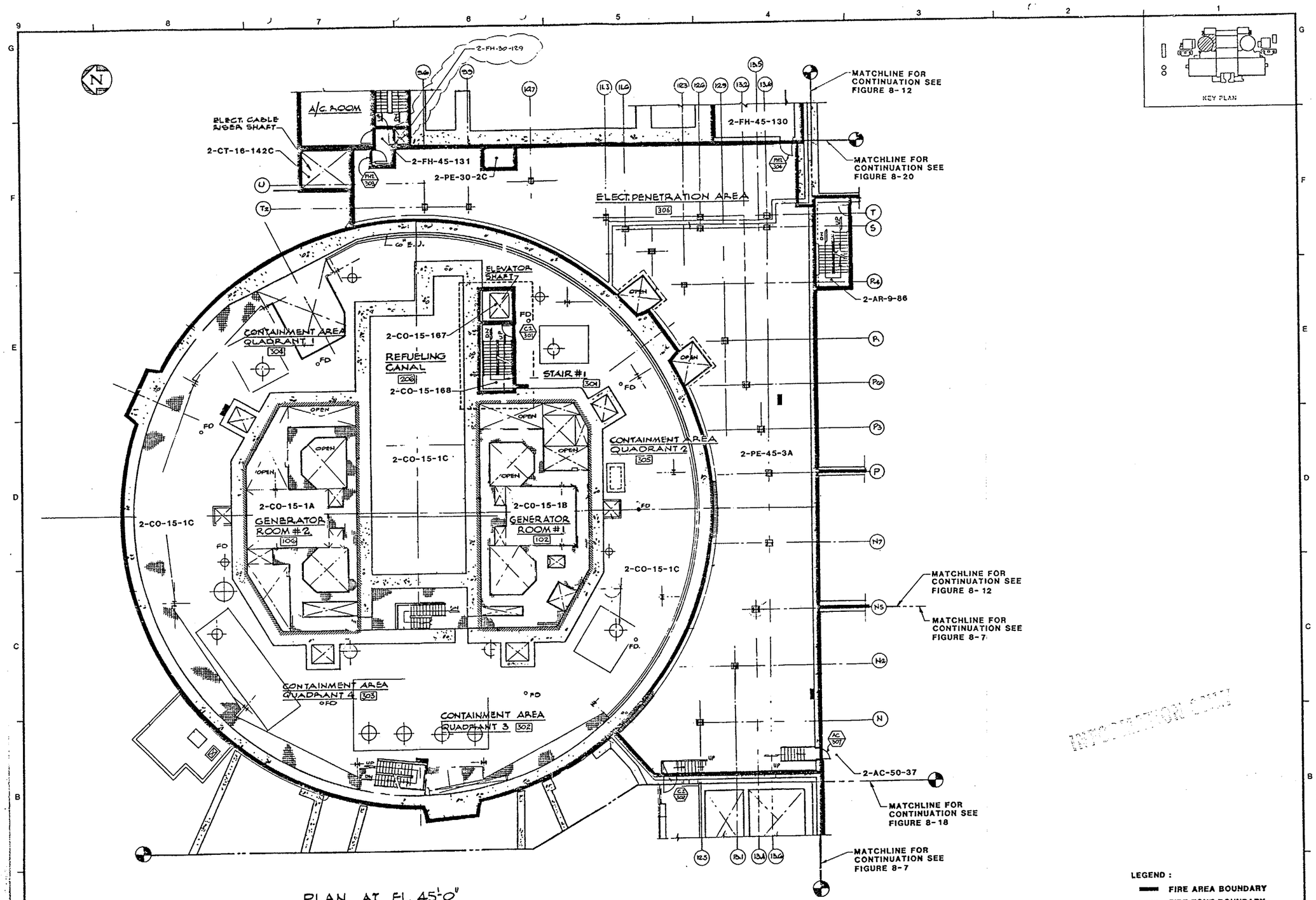
LEGEND:
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

REV.	DATE	DESCRIPTION	DWN.	CHK.	F.E.
2	12-17-86	INCORP CHG PKG SFC42 AS BUILT BY BWFC	T.S.	UP	
1	11-20-84	UPDATED FOR FHA REVISION.			
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION
CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 2 EL. 30'-0"
FIRE AREA BOUNDARY
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-2
REV. 2
SHEET 1 OF 4

83001



PLAN AT EL. 45'-0"
SCALE: 1/8" = 1'-0"

LEGEND:
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC-IIIFPS

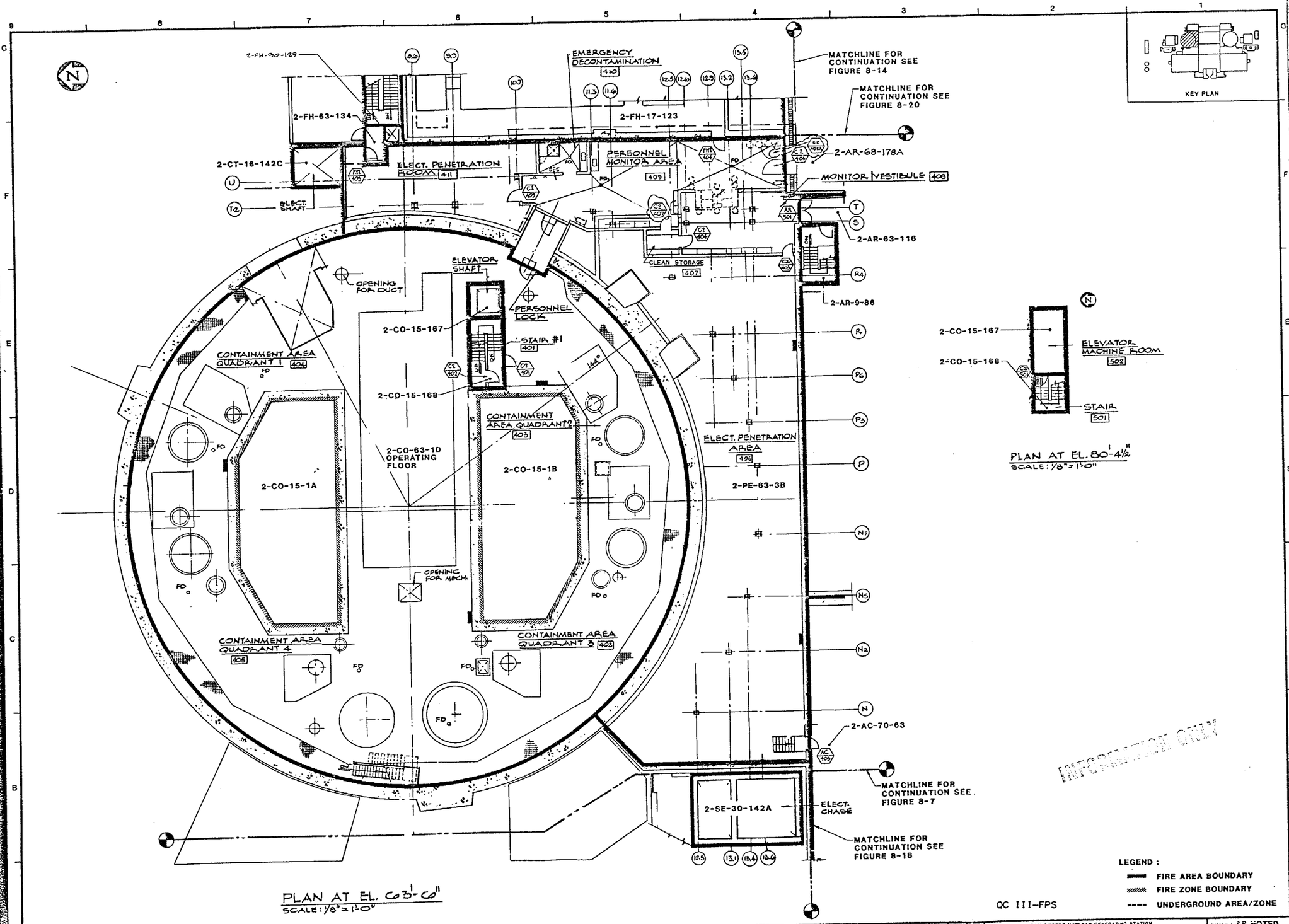
REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
3	1-22-90	RE-BUILT BY FLUOR INC. CHG. PKG SF-026	J.C.		
2	[illegible]	INCORP. CHG. PKG SF-026	BR		
1	11-20-84	UPDATED FOR PHA REVISION			
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION
CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 2 EL. 45'-0"
FIRE AREA BOUNDARY
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-3
REV. 3
SHEET 1 OF 4

2 UFHA REV 6 2/90 1 83002 1

30X



REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
5	6-15-00	INCORPORATES DCN 3	EP		
4	1-9-96	INCORP. DCN 2.	JCL		
3	6-20-94	INCORP. DCN 1	M.L.		
2	12-1-91	AS BUILT BY PLUGGING: 2-FS-W3 SE-017, 2-SEE-DC	J.C.		
1	4-26-89	INCORP. CHANGE PKG. BF-095	TWC		
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS	J.L.	JTC	

SAN ONOFRE NUCLEAR GENERATING STATION

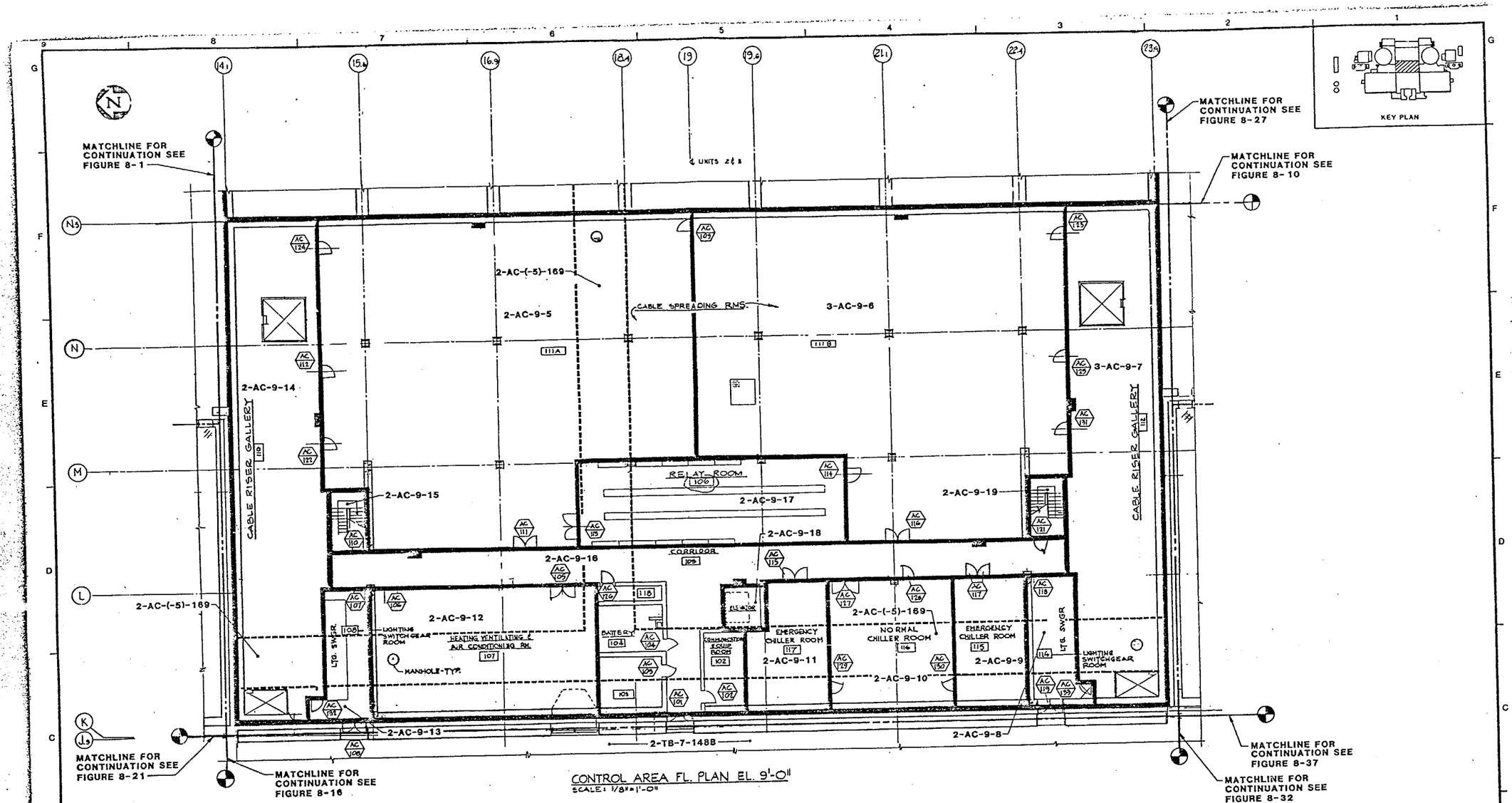
CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 2 EL. 63'-6"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-4
REV. 5
SHEET 1 OF 4

UFHA REV. 11 2/96 83003



CONTROL AREA FL. PLAN EL. 9'-0"
SCALE: 1/8"=1'-0"

INFORMATION ONLY

LEGEND :
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC III-FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
2	1-12-96	INCORP. DCN 2			
1	1-9-96	INCORP. DCN 1.	JCL		
0	2-13-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS		JRC	

SAN ONOFRE NUCLEAR GENERATING STATION

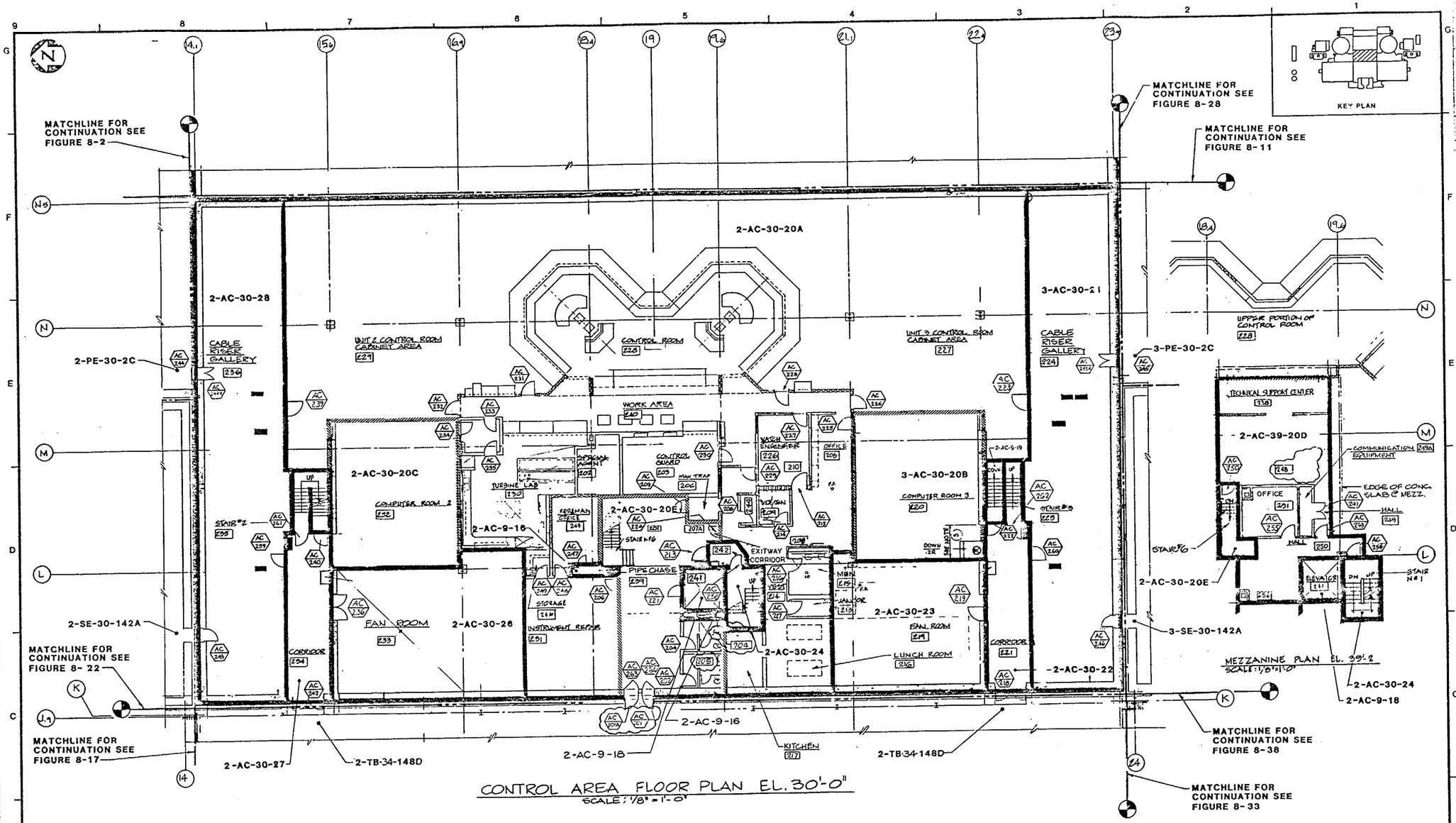
AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 9'-0"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-5
REV. 2
SHEET 1 OF 3

2UFHA REV. 11 2/96 83004



INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC III-FPS

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.	P.E.
7	1-9-96	INCORP. DCN 2.		JCL		
6	4-20-94	INCORP. DCN 1.		HML		
5	1-22-93	AS BUILT BY FLUOR, INC. CHG PKGS SF-1262 & SF-1266	269	JC		
4	4-28-89	INCORPORATE CHANGE PACKAGE SF-1462		RTC		
3	9-28-00	INCORPORATED DCN'S 4 THRU 7		EF		
2	1-9-90	INC. DCN 3		NM		
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS				

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 30'-0"
FIRE AREA BOUNDARY

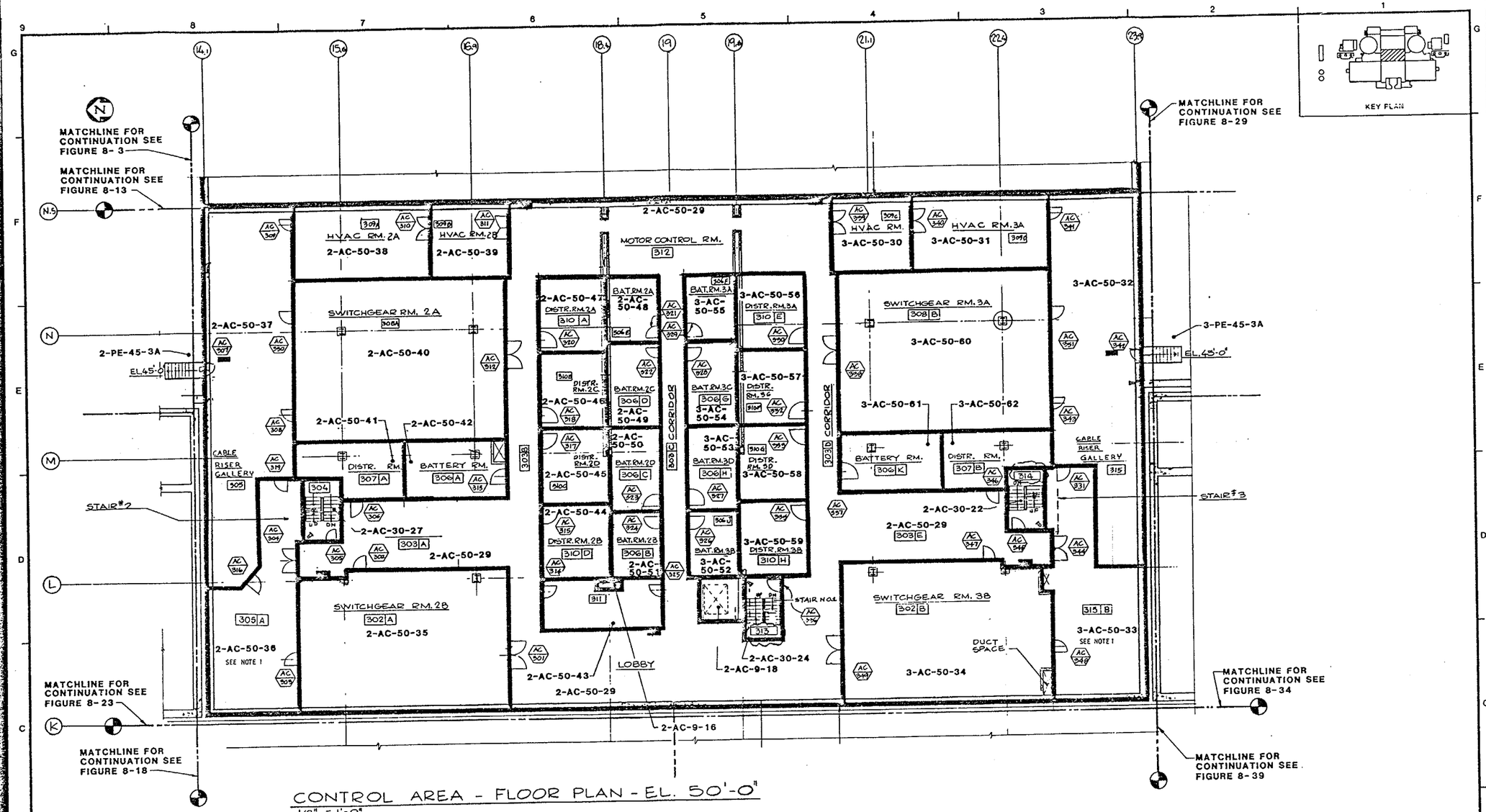
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-6
REV. 9
SHEET 1 OF 4

UFHA REV. 11 2/96

83005



CONTROL AREA - FLOOR PLAN - EL. 50'-0"

1/8" = 1'-0"

NOTE:

1. REFERENCES TO THIS ROOM NUMBER ON CERTAIN ELECTRICAL DRAWINGS MAY NOT DESIGNATE THE "A" OR "B", DESIGNATOR ADDED TO CLARIFY FIRE BARRIER/ PENETRATION SEAL DRAWINGS.

LEGEND:

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QUALITY CLASS III FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
4	10-19-00	INCORPORATED DCN 2	EP		
3	12-15-92	INCORP. DCN 1, AS BUILT.	LGS		
2	--	INCORP CHANGE PKG. SF-021	EP		
1	11-20-84	UPDATED FOR FHA REVISION			
0	12-9-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

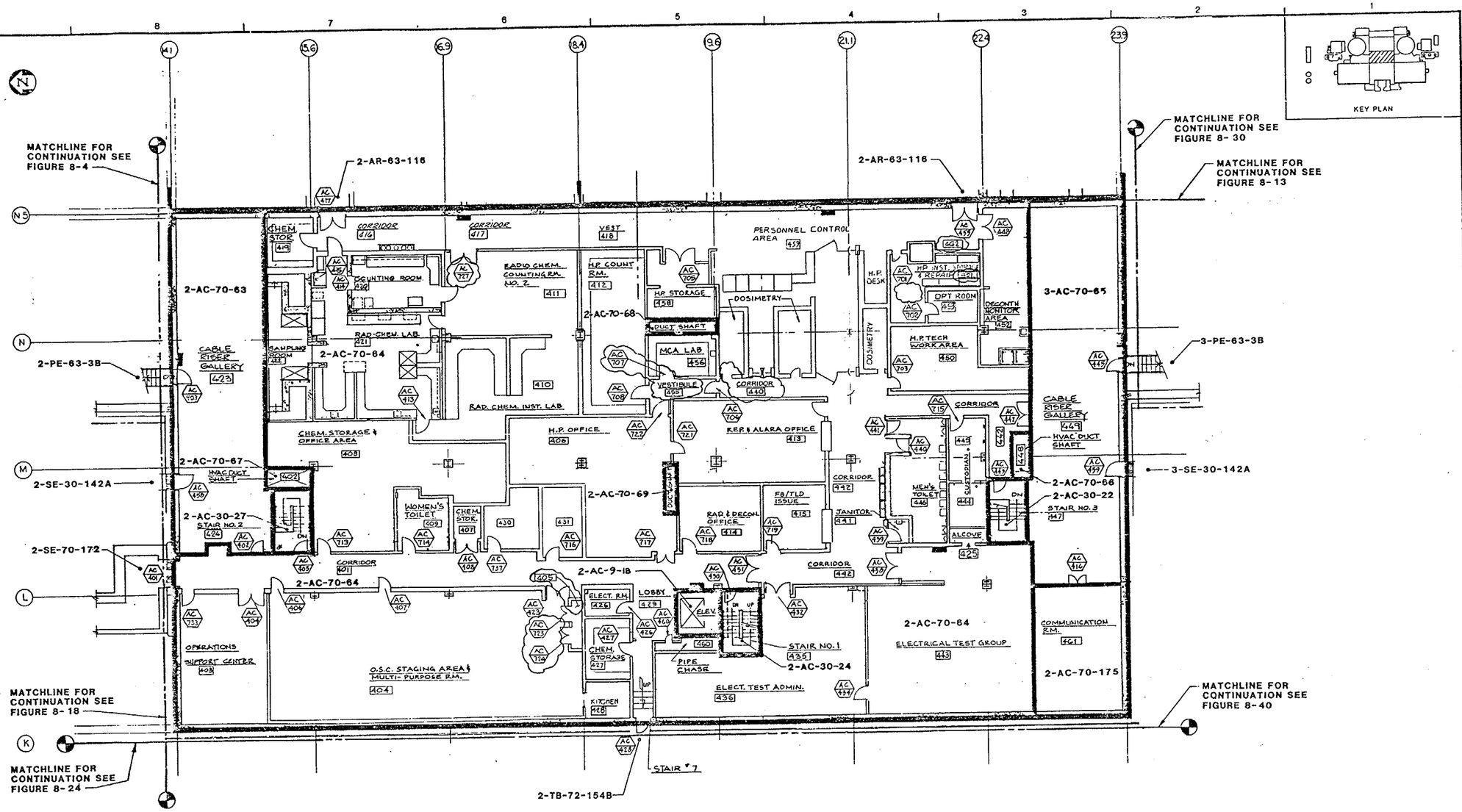
AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 50'-0"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-7
REV. 4
SHEET 1 OF 4

UFHA REV. 9 2/93 83006



CONTROL AREA FLOOR PLAN EL. 70'-0"

SCALE : N.T.S.

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC III-FPS

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.
7	3-19-94	INCORP. DCN 2	—	MVL	
6	3-7-94	INCORP DCN 1, AS BUILT.	—	J.D.	
5	1-22-94	AS BUILT BY FLUORINC-CHG. PKG. SF-065, SF-052	SAT		
10	9-28-00	INCORPORATED DCN'S 5 THRU 9		EF	
9	1-10-98	INCORP DCN 4		MM	
8	1-9-96	INCORP. DCN 3.		JCL	
0	2-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 70'-0
FIRE AREA BOUNDARY

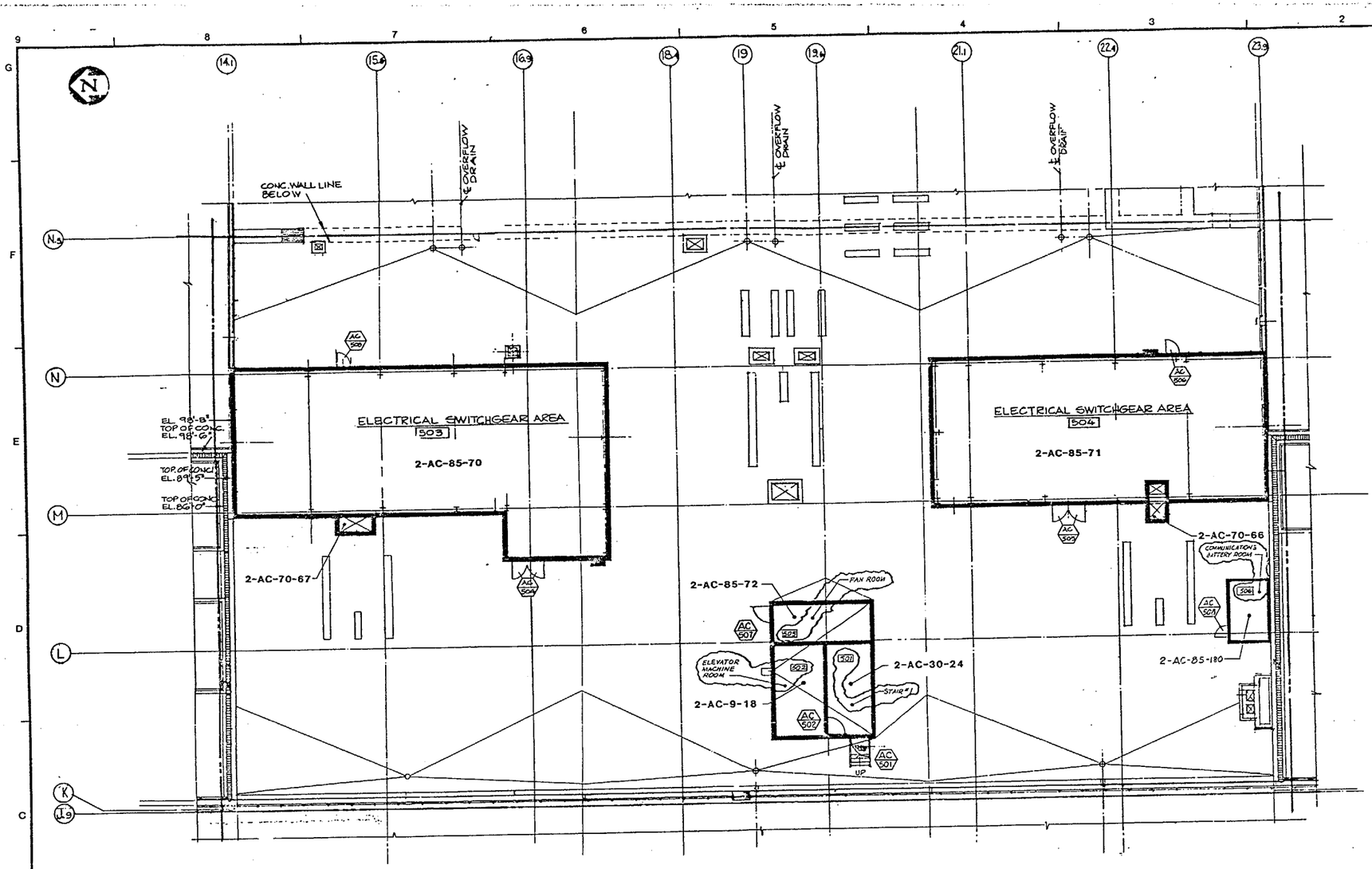
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELLI

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-8
REV. 10
SHEET 1 OF 4

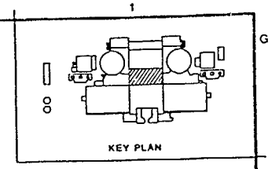
UFHA REV. 11 2/96

83007



CONTROL AREA - ROOF PLAN EL. 85'-0"

SCALE: 1/8" = 1'-0"



INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
3	1-10-88	INCORP DCN # 1	EF		
2	12-17-86	INCORP. CHANGE NOTICE (6-536) AS BUILT BY SWPC			
1	11-18-85	INCORP. CHANGE PKG. SF-020	EG		
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 85'-0"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

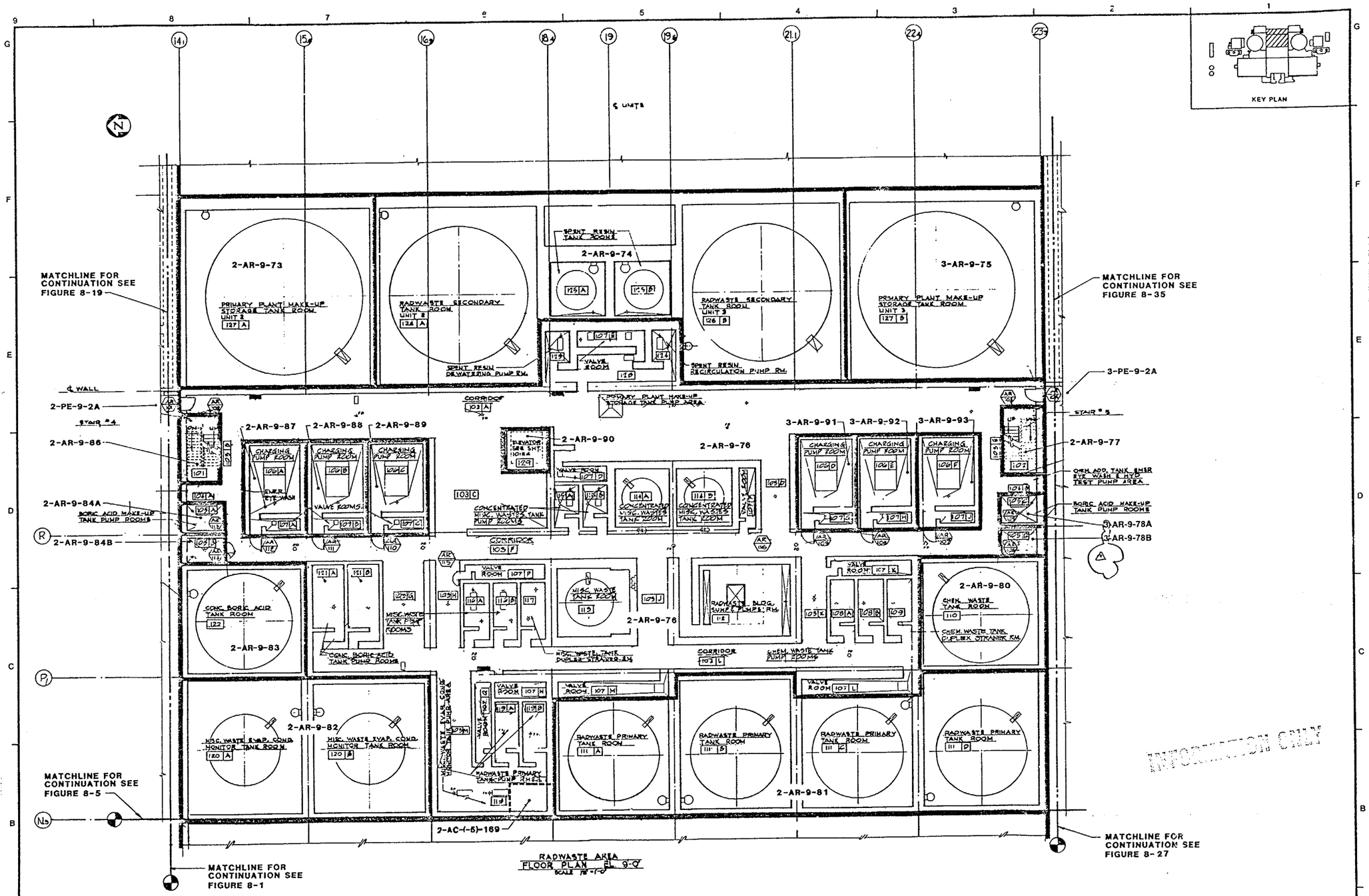
SCALE: AS NOTED

JOB NO. 0310-017

FIGURE NUMBER 8-9 REV. 3

SHEET 1 OF 4

2 URHA REV3 2/87 83008 1



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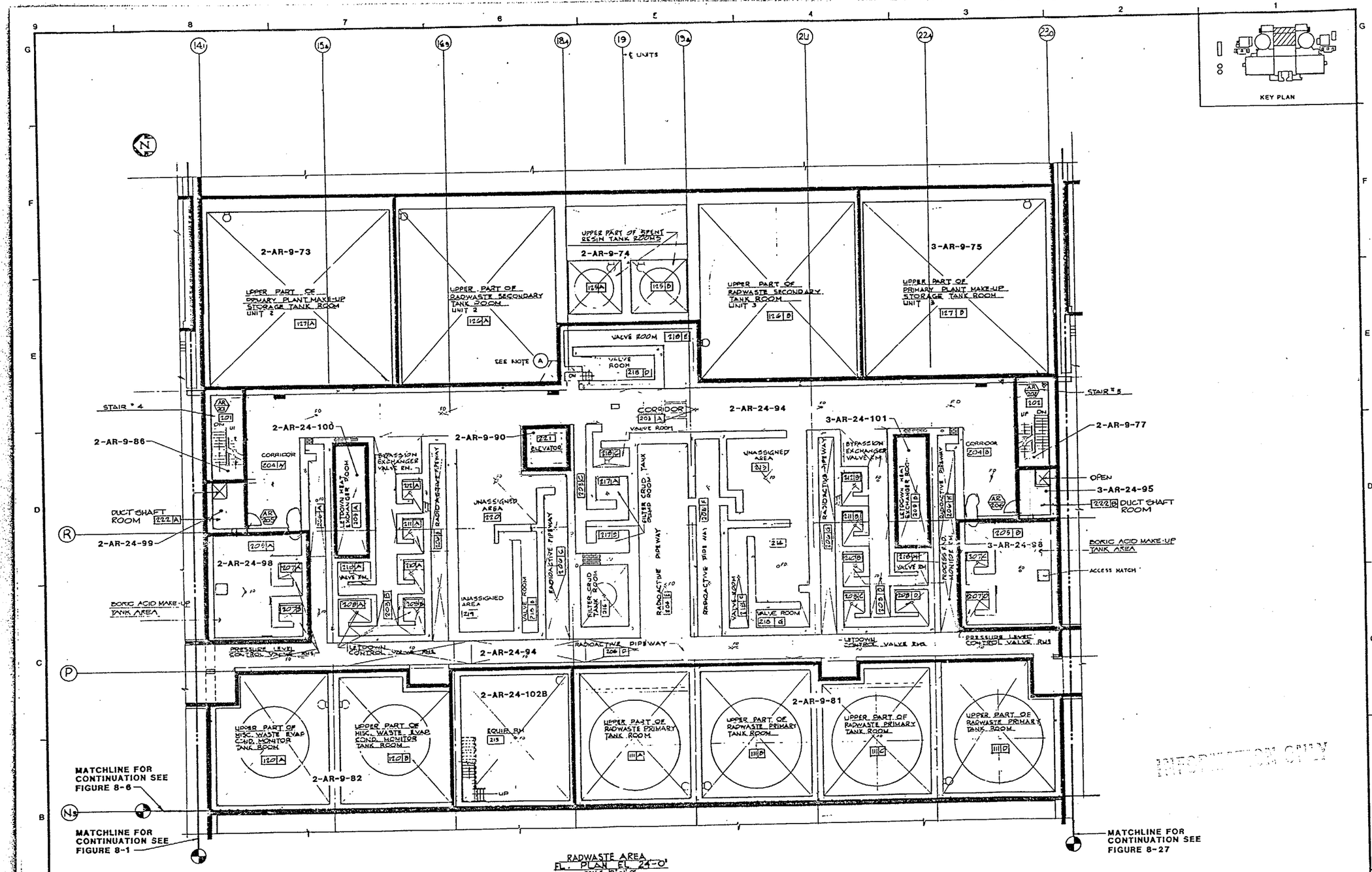


LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

Q.C. III - FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
1	1-10-90	INCORP DCN 1			
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 24'-0"
FIRE AREA BOUNDARY

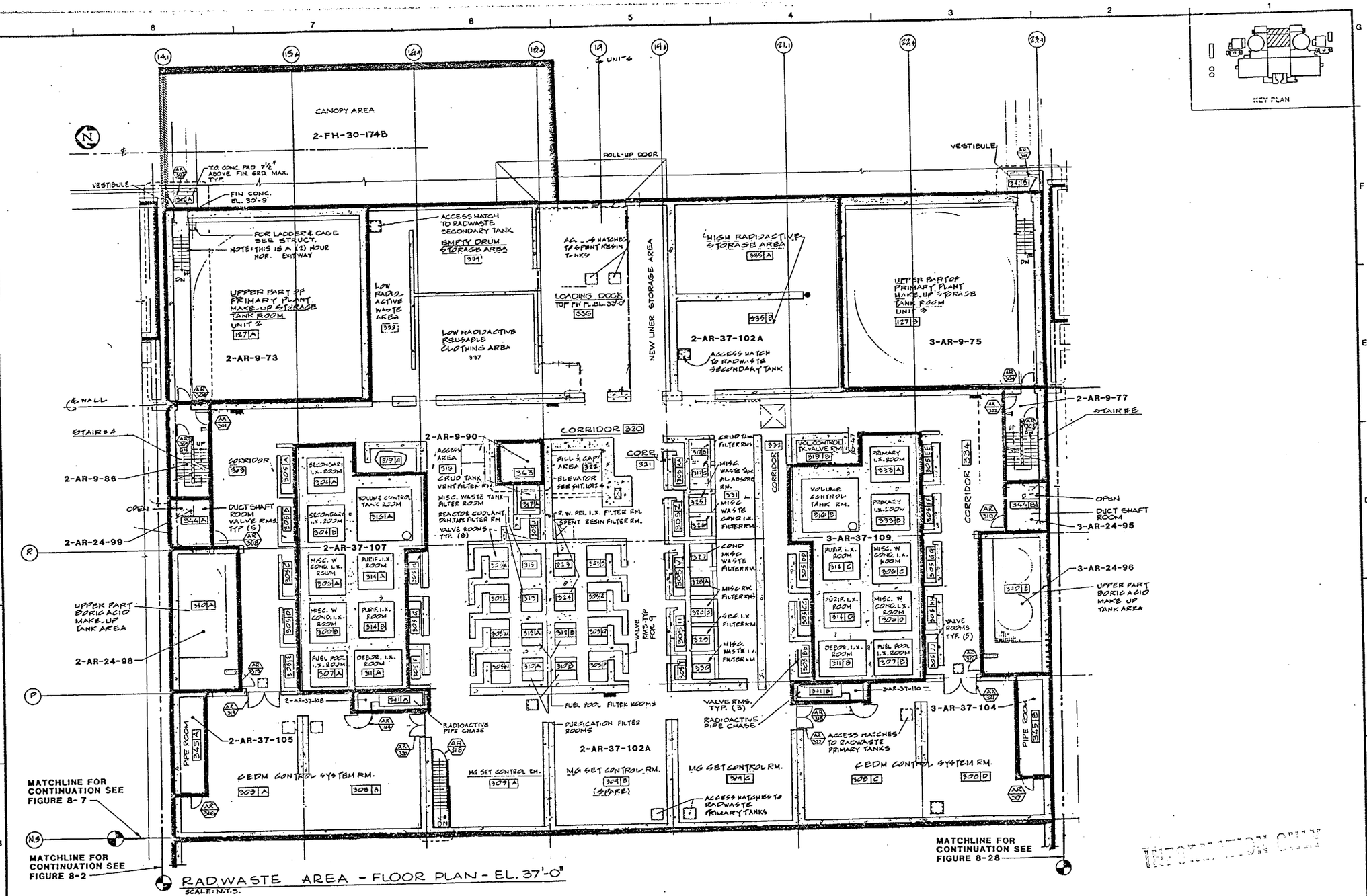
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-11
REV. 1
SHEET 1 OF 4

83010

INFORMATION ONLY



RADWASTE AREA - FLOOR PLAN - EL. 37'-0"
SCALE: N.T.S.

INFORMATION ONLY

LEGEND:

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC-IIIFPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
4	1-10-98	INCORP DCN 1			
3	1-22-96	AS BUILT BY PLUMBING CHG. PKG. 95-0088, 95-0223-QC			
2	4-12-88	INCORP. CHANGE PKG. 87-095			
1	11-11-87	INCORP. CHG. PKG. 87-010			
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 37'-0"
FIRE AREA BOUNDARY

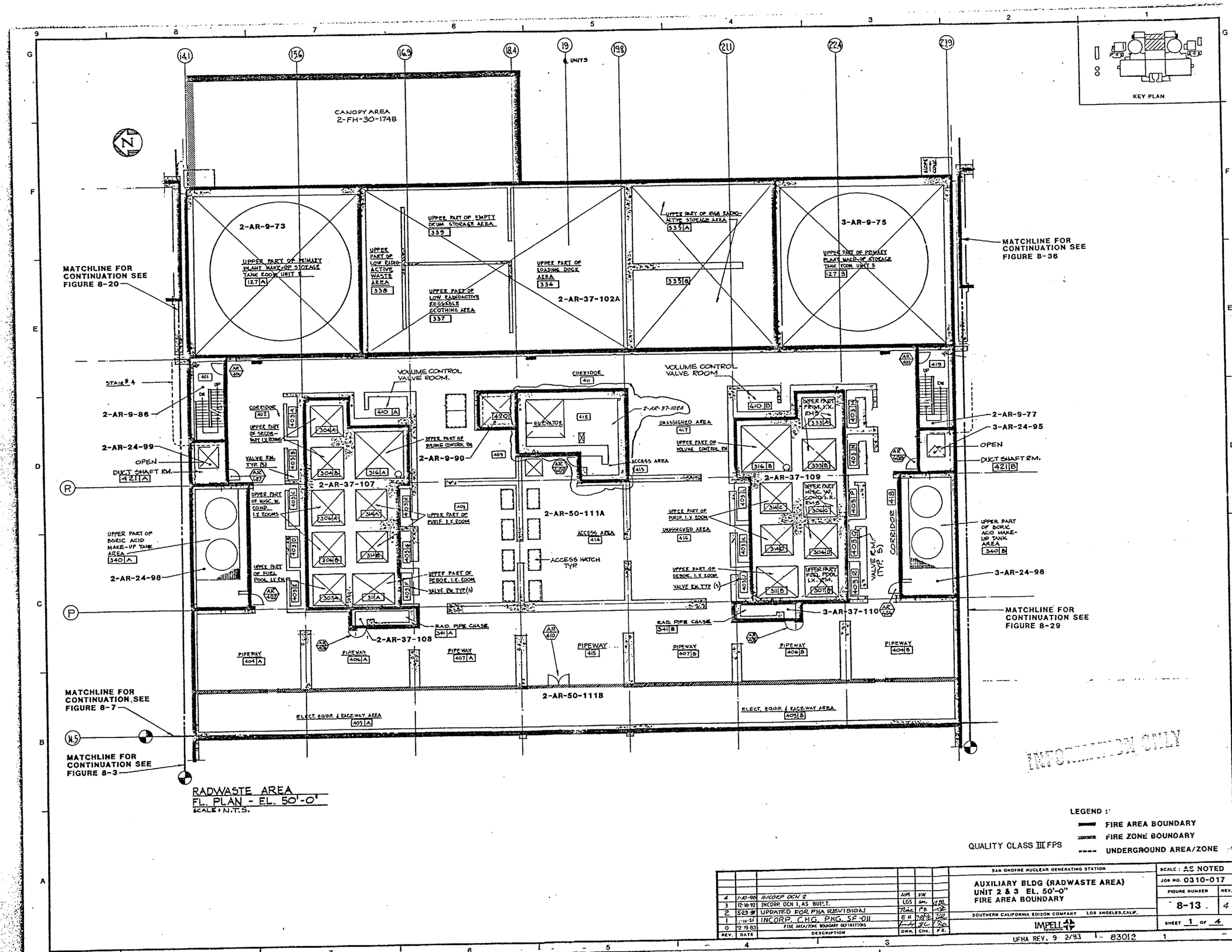
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-12
REV. 4
SHEET 1 OF 4

2 UFHA REV 6 2/90 83011

MICROFILMED FROM



LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QUALITY CLASS III FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
4	1-10-96	INCORP OCN 2	MA	VM	
3	12-16-92	INCORP. OCN 1, AS BUILT.	LGS		
2	5-23-89	UPDATED FOR FHA REVISION			
1	12-18-85	INCORP. CHG. PKG. SF-011	EH		
0	2-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 50'-0"
FIRE AREA BOUNDARY

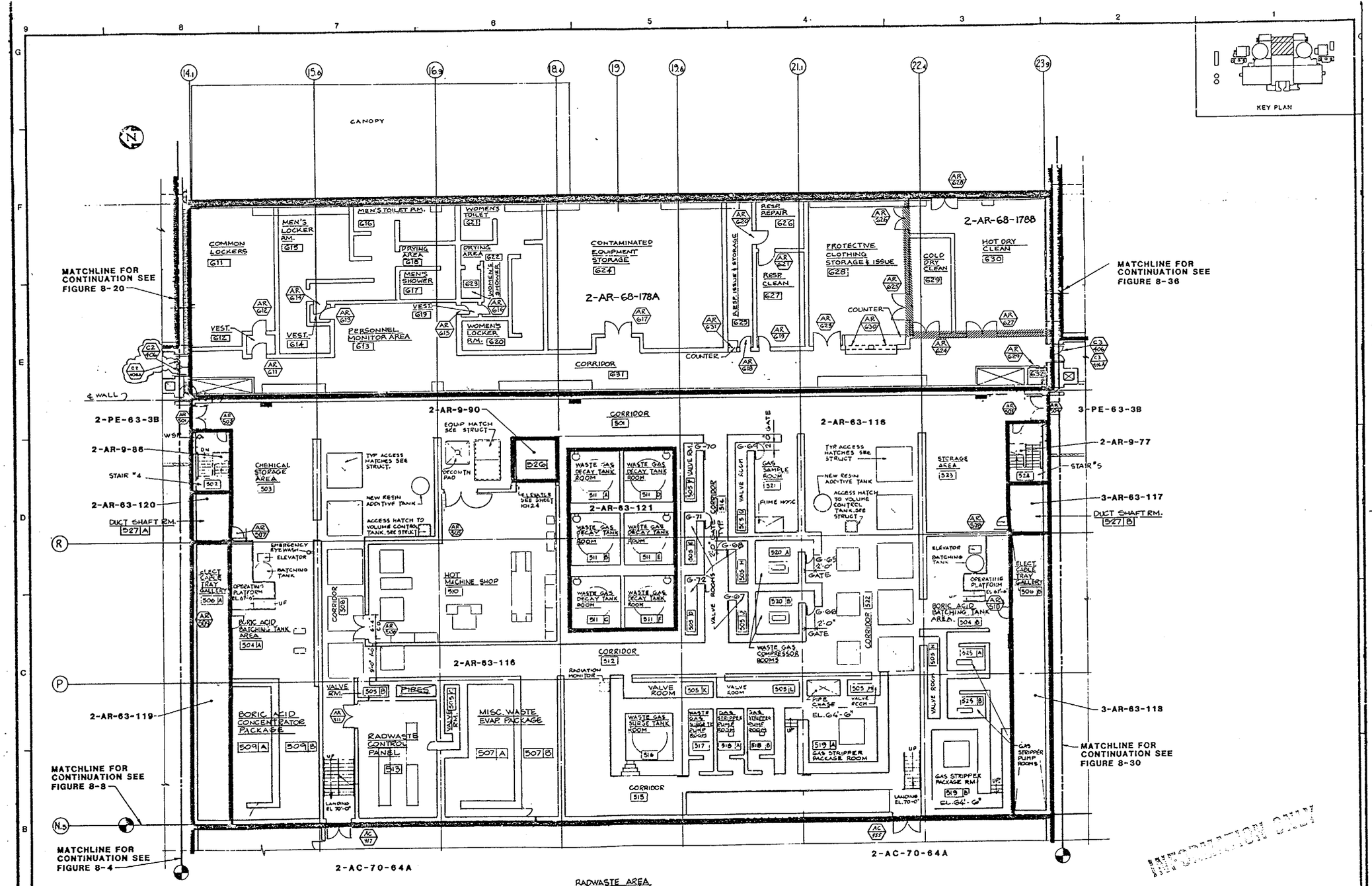
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

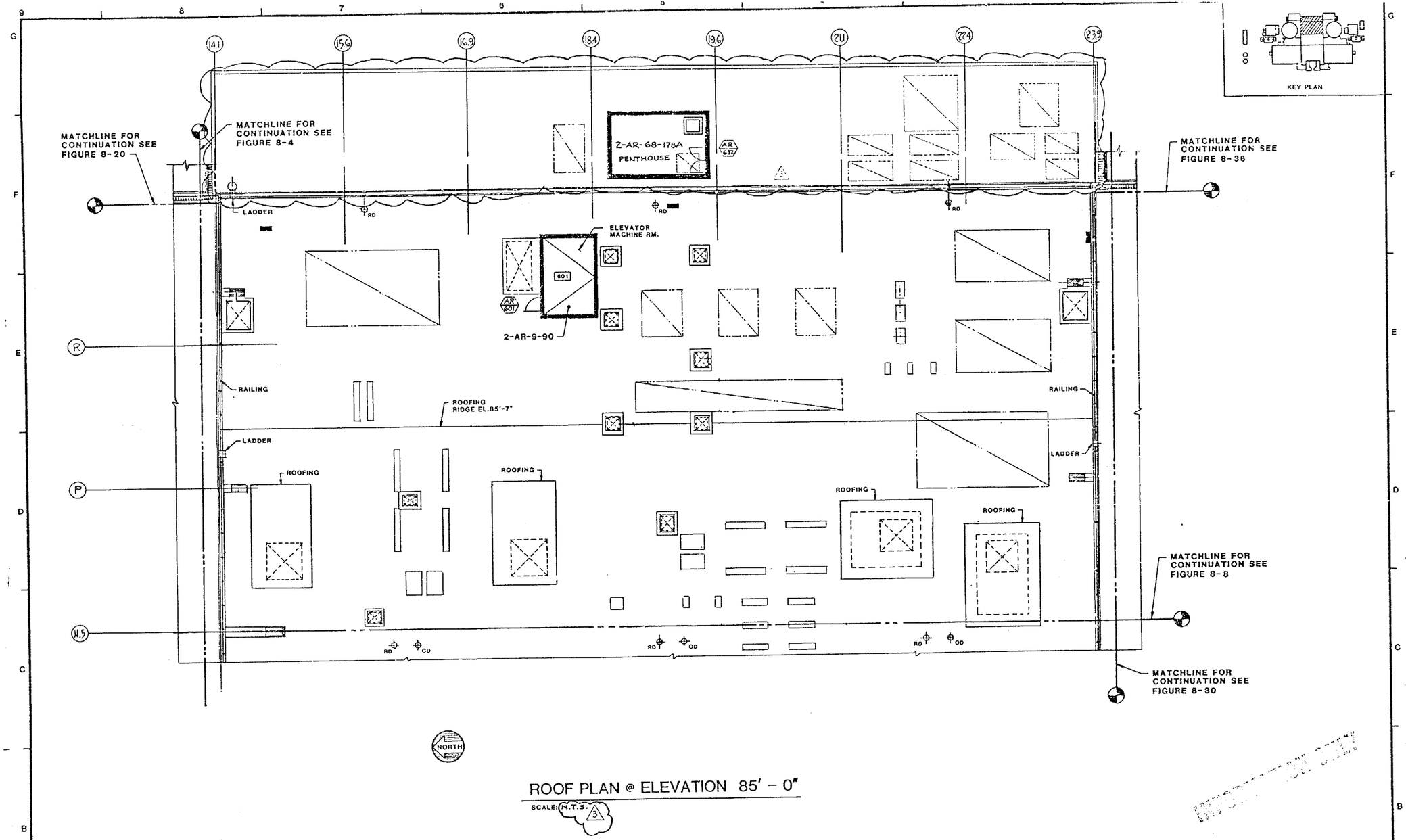
IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-13 REV. 4
SHEET 1 OF 4

UFHA REV. 9 2/93 - 83012

MICROFILMED FROM


KEY PLAN
CANOPY
COMMON LOCKERS 611
MEN'S LOCKER RM. 615
MEN'S TOILET RM. 616
WOMEN'S TOILET 621
DRYING AREA 618
DRYING AREA 625
MEN'S SHOWER 617
WOMEN'S SHOWER 623
VEST. 612
VEST. 614
VEST. 619
PERSONNEL MONITOR AREA 613
WOMEN'S LOCKER RM. 620
CONTAMINATED EQUIPMENT STORAGE 624
2-AR-68-178A
CORRIDOR 631
RESP. REPAIR 626
RESP. ISSUE & STORAGE 625
RESP. CLEAN 627
PROTECTIVE CLOTHING STORAGE & ISSUE 628
COLD DRY CLEAN 629
HOT DRY CLEAN 630
2-AR-68-178B
COUNTER
MATCHLINE FOR CONTINUATION SEE FIGURE 8-20
MATCHLINE FOR CONTINUATION SEE FIGURE 8-36
2-PE-63-3B
3-PE-63-3B
2-AR-9-86
2-AR-9-77
STAIR #4
STAIR #5
2-AR-63-120
3-AR-63-117
DUCT SHAFT RM. 527 A
DUCT SHAFT RM. 527 B
CHEMICAL STORAGE AREA 503
TYP ACCESS HATCHES SEE STRUCT.
NEW RESIN ADDITIVE TANK
ACCESS HATCH TO VOLUME CONTROL TANK, SEE STRUCT.
2-AR-9-90
EQUIP HATCH SEE STRUCT
CONCRETE PAD
ELEVATOR SEE SHEET 1024
CORRIDOR 501
WASTE GAS DECAY TANK ROOM
2-AR-63-121
2-AR-63-116
GAS SAMPLE ROOM 521
FUME HOOK
STORAGE AREA 523
EMERGENCY EYEWASH
ELEVATOR
BATCHING TANK
OPERATING PLATFORM EL. 67'-6"
BORIC ACID BATCHING TANK AREA 504 A
ELECT. CABLE TRAY GALLERY 506 A
ELECT. CABLE TRAY GALLERY 506 B
HOT MACHINE SHOP 510
CORRIDOR 508
CORRIDOR 509
CORRIDOR 512
CORRIDOR 515
CORRIDOR 532
VALVE ROOM
VALVE ROOMS
2'-0" GATE
WASTE GAS COMPRESSOR ROOMS
BORIC ACID BATCHING TANK AREA 504 B
2-AR-63-119
BORIC ACID CONCENTRATOR PACKAGE 509 A
509 B
VALVE RM.
FIBES
RADWASTE CONTROL PANEL 513
MISC. WASTE EVAP. PACKAGE 507 A
507 B
RADIATION MONITOR
WASTE GAS SURGE TANK ROOM 516
WASTE GAS COMPRESSOR PUMP ROOM 517
GAS STRIPPER PUMP ROOM 518 A
GAS STRIPPER HEAT EXCHANGER ROOM 518 B
PIPE CHASE
VALVE RECH.
EL. 64'-6"
GAS STRIPPER PACKAGE ROOM 519 A
GAS STRIPPER PACKAGE RM. 519 B
GAS STRIPPER PUMP ROOMS
3-AR-63-118
MATCHLINE FOR CONTINUATION SEE FIGURE 8-30
MATCHLINE FOR CONTINUATION SEE FIGURE 8-8
MATCHLINE FOR CONTINUATION SEE FIGURE 8-4
2-AC-70-64A
2-AC-70-64A
LANDING EL. 70'-0"
LANDING EL. 70'-0"
RADWASTE AREA
FL. PLAN EL. 63'-6"
SCALE: N.T.S.
INFORMATION ONLY
LEGEND:
FIRE AREA BOUNDARY
FIRE ZONE BOUNDARY
UNDERGROUND AREA/ZONE
QC III-FPS
SAN ONOFRE NUCLEAR GENERATING STATION
AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 63'-6"
FIRE AREA BOUNDARY
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
IMPELL
SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-14
REV. 3
SHEET 1 OF 4
2 UFHA REV. 11 2/96 83013
REV. DATE DESCRIPTION DWN. CHK. P.E.
3 1-9-96 INCORP. DCN 1.
2 1-28-89 INCORPORATE CHANGE PACKAGE BF-144B
1 9-23-86 INCORP. CHANGE PKG. BF-093
0 12-19-83 FIRE AREA/ZONE BOUNDARY, QC INITIALS
30X



ROOF PLAN @ ELEVATION 85' - 0"

SCALE: N.T.S. 3

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
3	4-26-88	INCORP. CHANGE PKG. BF-093			
2	11-5-81	INCORP. CHANGE PKG. SF-009.	RR		
1	1-20-84	UPDATED FOR FHA REVISION			
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS	CDL	JTC	

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 85'-0"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-14A
REV. 3
SHEET 1 OF 2

2 URHA REV.A 8/88

83014

30X

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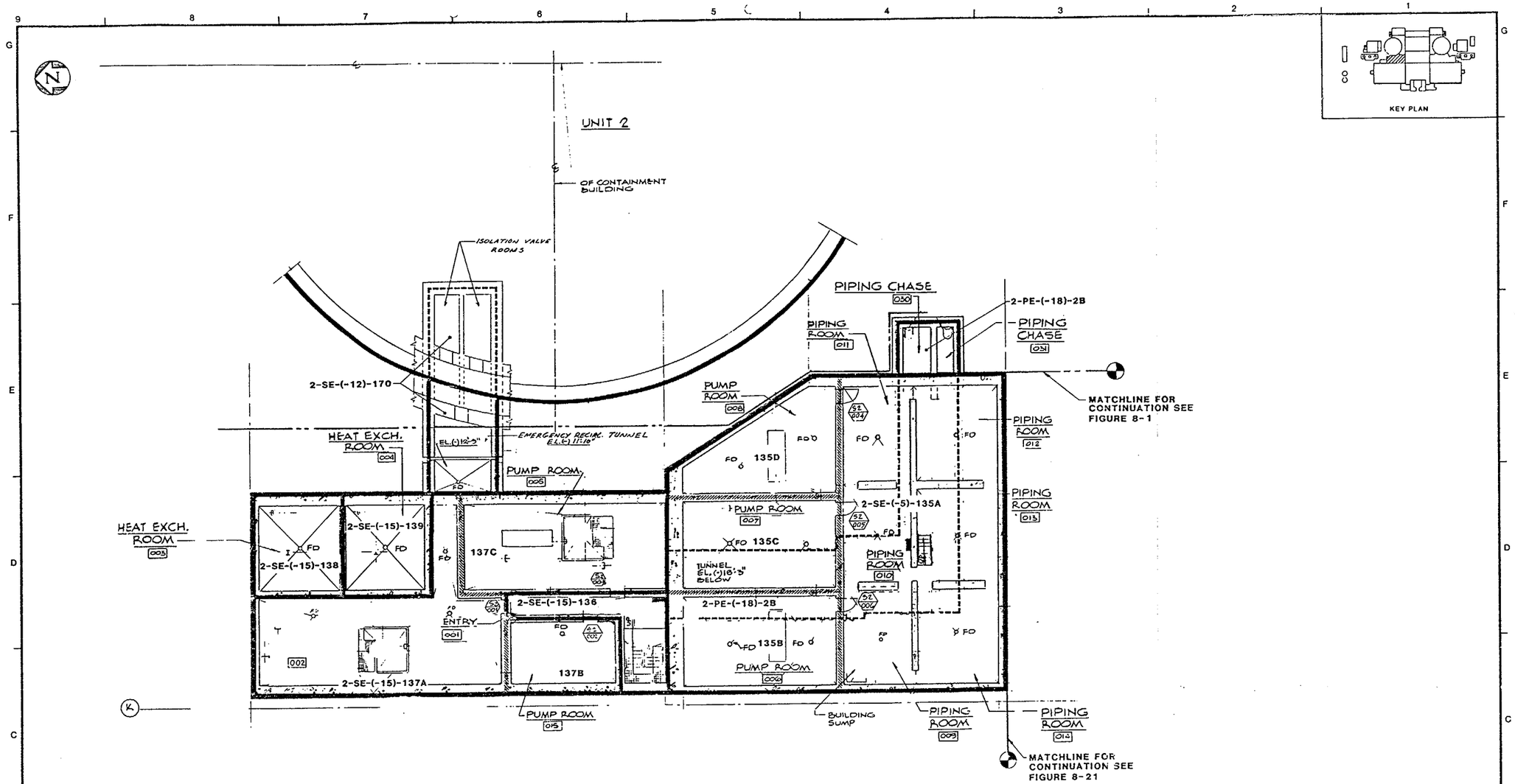
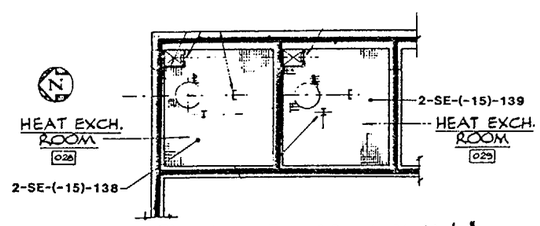


PLAN AT ELEVATION (-) 15'-6 & (-) 5'-3"



PLAN AT PLATFORM EL.(-)2'-0" ABOVE HEAT EXCH. ROOMS
SCALE: 1/8" = 1'-0"

INFORMATION ONLY

LEGEND :
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

REV.	DATE	DESCRIPTION	DWN.	CHK.
0	12-13-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS		

SAN ONOFRE NUCLEAR GENERATING STATION
SAFETY EQUIPMENT BLDG.
UNIT 2 EL.-15'-6" & -5'-3"
FIRE AREA BOUNDARY
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-15 REV. 0
SHEET 1 OF 3

83015

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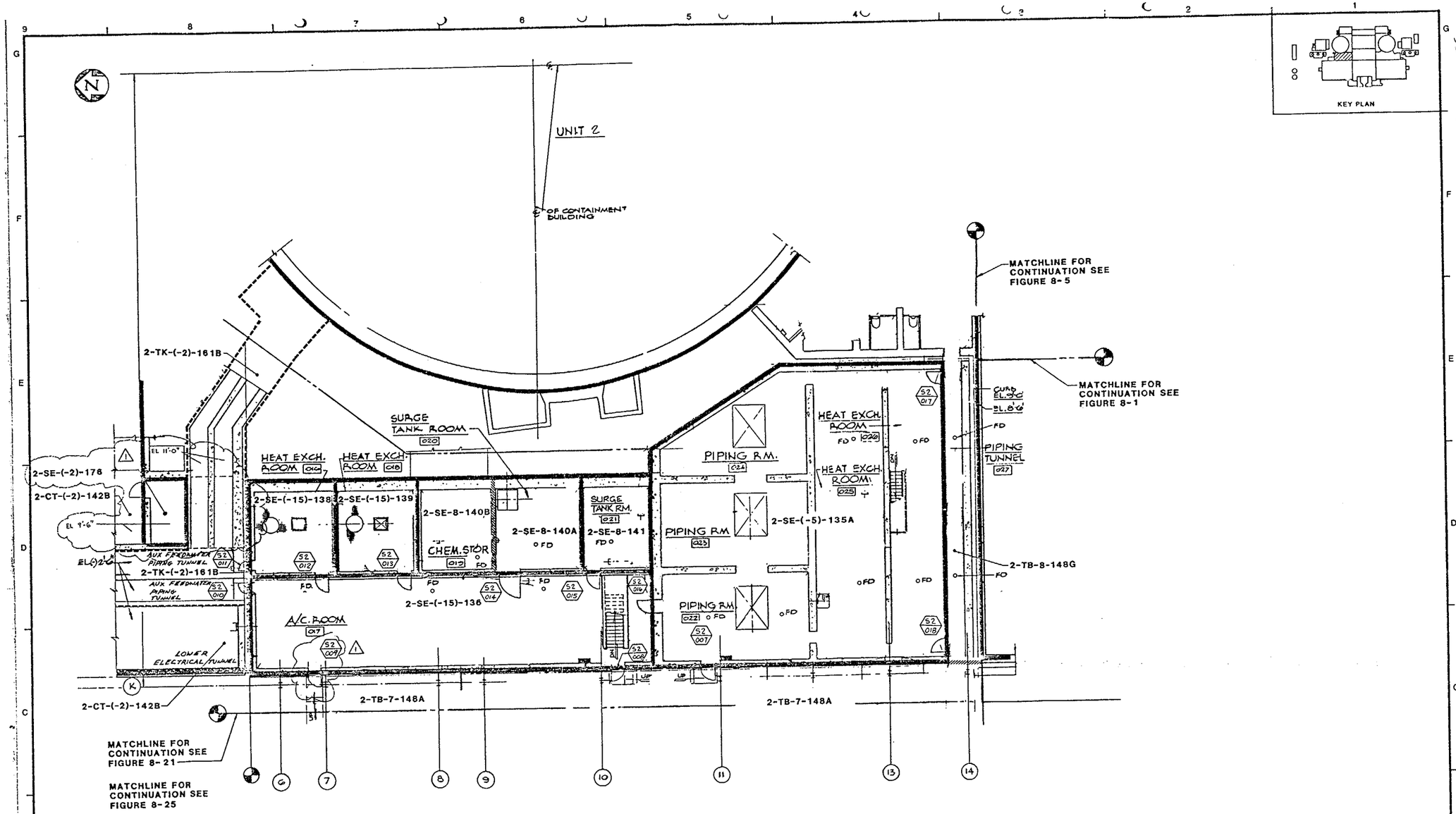

PLAN AT ELEVATION 8'-0"
SCALE : 1/8" = 1'-0"

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC-III FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
1	1-28-91	INCORPORATE CHANGE PACKAGES SF-082 AND SF-084			
0	2-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

SAFETY EQUIPMENT BLDG
UNIT 2 EL. 8'-0"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-16
REV. 1
SHEET 1 OF 4

2 UFHA REV. 6 2/89 83016

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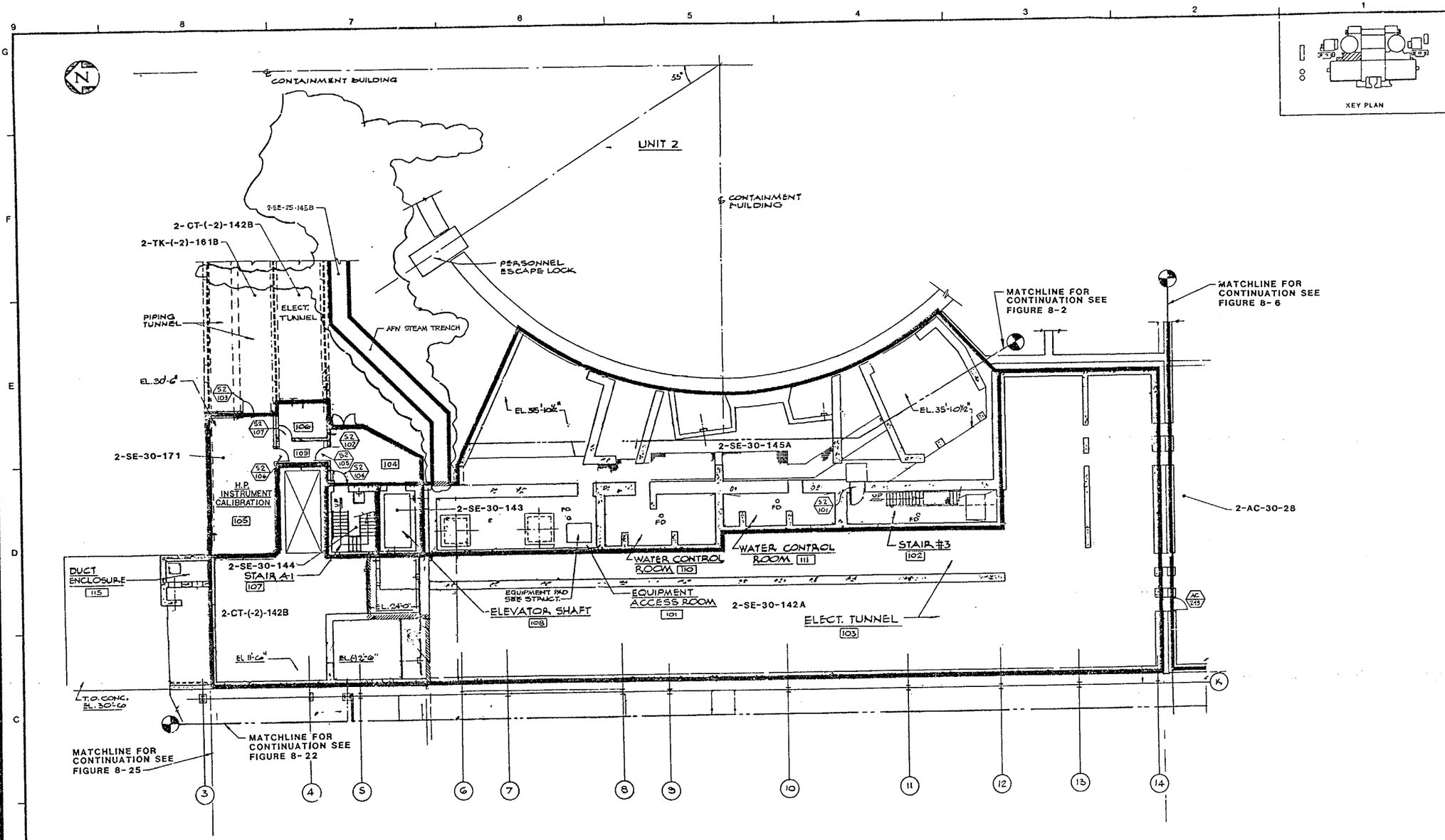


PLAN AT ELEVATION 30'-6"

SCALE: N.T.S.

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC-111FPS

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.
5	10-24-00	INCORPORATE DCN 2		EF	
4	12-16-92	INCORP. DCN 1, AS BUILT.		LGS	
3	2-2-90	AS BUILT BY FLUOR; INCORP PKG SF-087, ADDED QC		P.W.J.	
2	4-28-88	UPDATED FOR FHA REVISION			
1	11-20-84	UPDATED FOR FHA REVISION.			
0	2-19-83	FIRE AREA/ZONE BOUNDARY INTERSECTIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

SAFETY EQUIPMENT BLDG
UNIT 2 EL. 30'-6"
FIRE AREA BOUNDARY

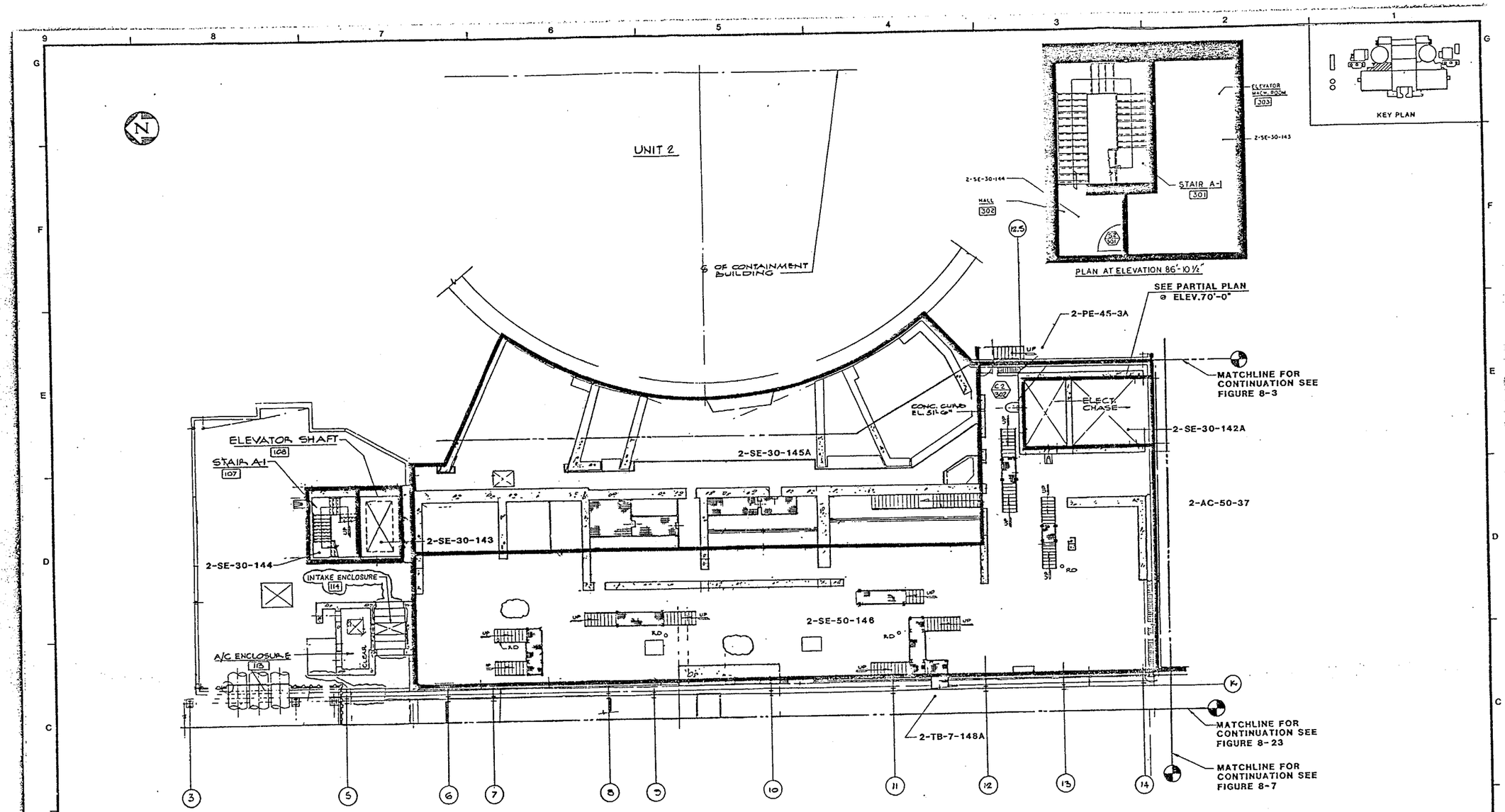
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

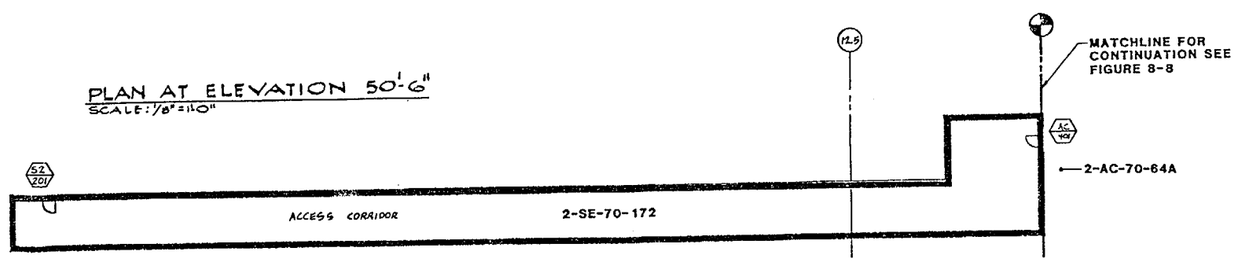
IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-17
REV. 5
SHEET 1 OF 4

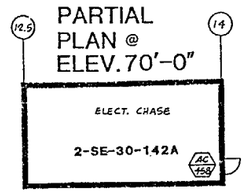
UFHA REV. 9 2/93 83017

INFORMATION ONLY





PARTIAL PLAN @ ELEVATION 70' – 0"
SCALE: 1/8" = 1'-0"



PARTIAL PLAN @ ELEV. 70'-0"

INFORMATION ONLY

LEGEND :
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC-III FPS

REV.	DATE	DESCRIPTION	Q.A.	DWN.	CHK.
4	1-10-98	INC. DCN 1		NM	VM
3	2-2-90	AS BUILT OF FLUOR INC. CHG. FHA-SE-08, ADDED QC	RD	S.S.	
2	5-24-89	UPDATED FOR FHA REVISION			
1	11-15-84	UPDATED FOR FHA REVISION.			
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

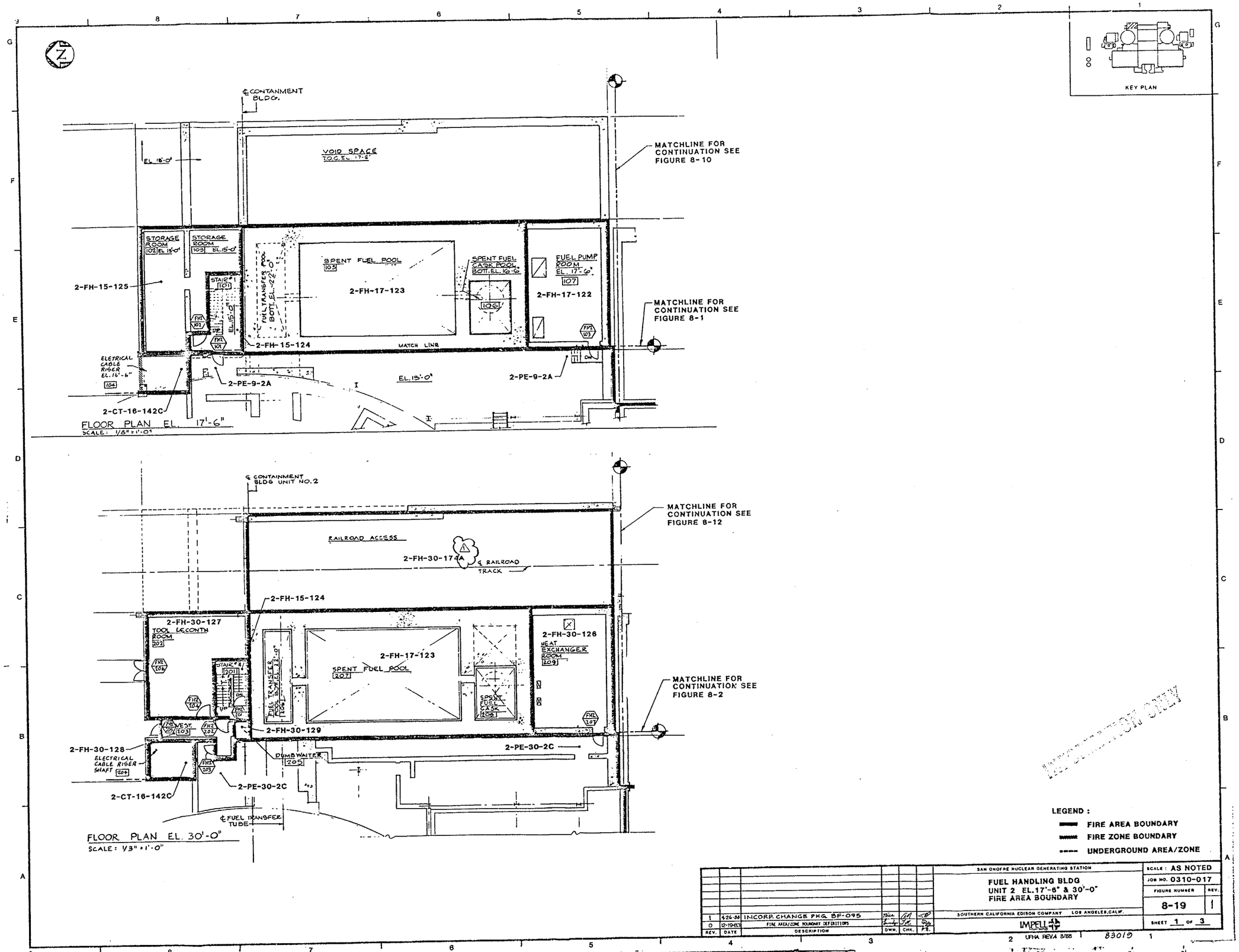
SAFETY EQUIPMENT BLDG
UNIT 2 EL. 50'-6", 70'-0" & 86'-10 1/2"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-18
REV. 4
SHEET 1 OF 4

2 UFHA REV 6 2/90 83018-1



INFORMATION ONLY

LEGEND:

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
1	4-26-88	INCORP. CHANGE PKG. BF-095			
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

FUEL HANDLING BLDG
UNIT 2 EL. 17'-6" & 30'-0"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

UFHA REV.4 8/88

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-19
REV. 1
SHEET 1 OF 3

83019

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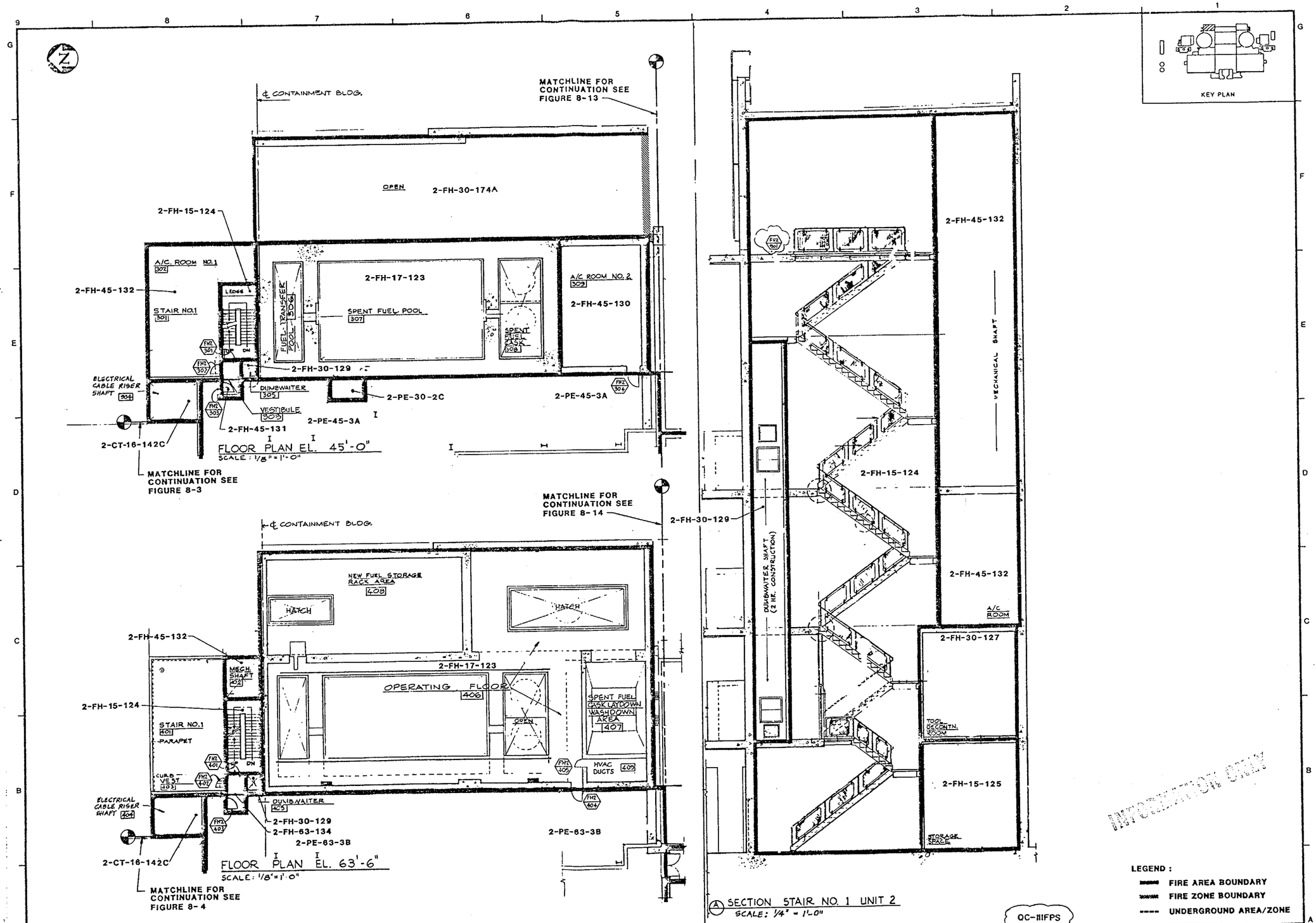
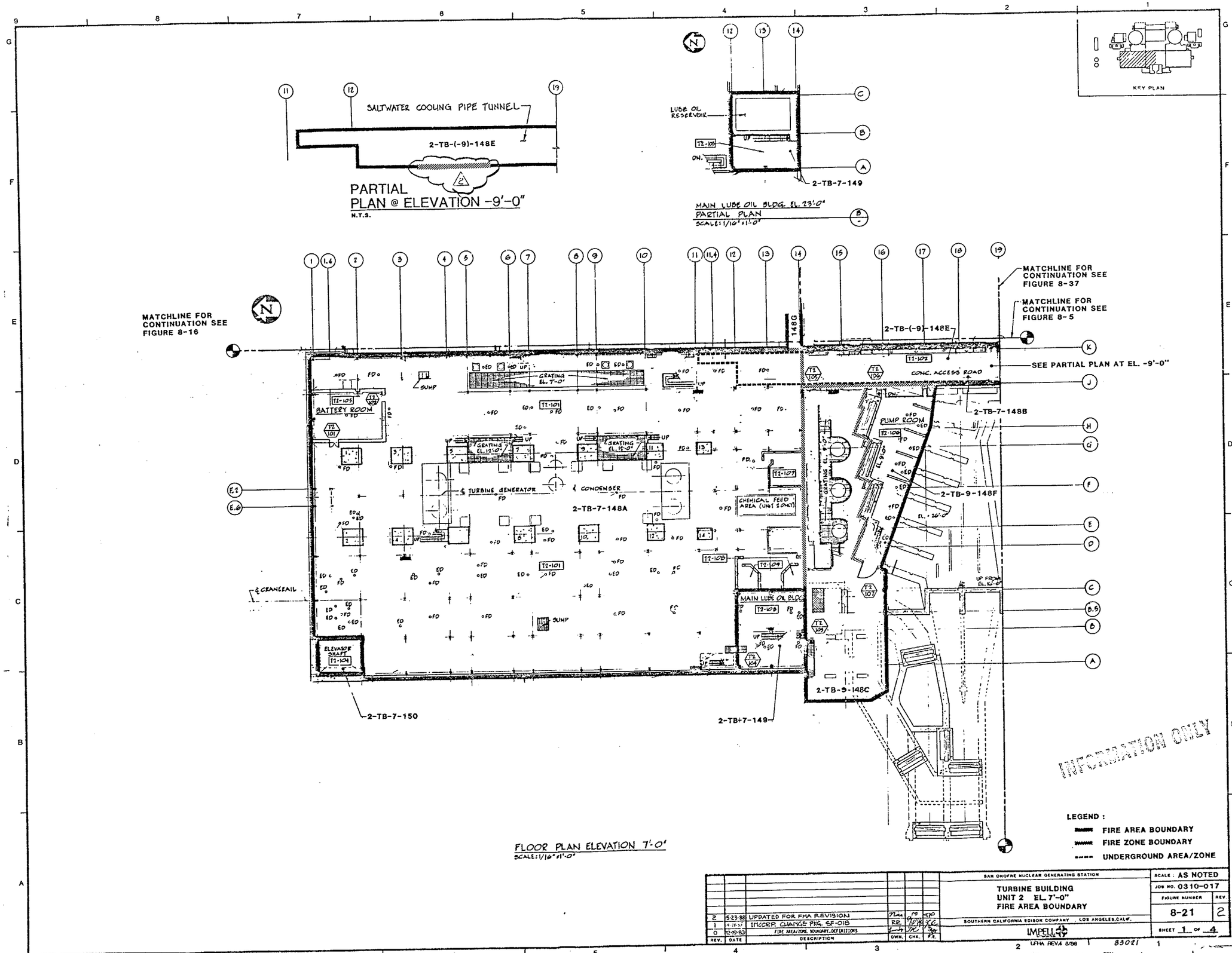
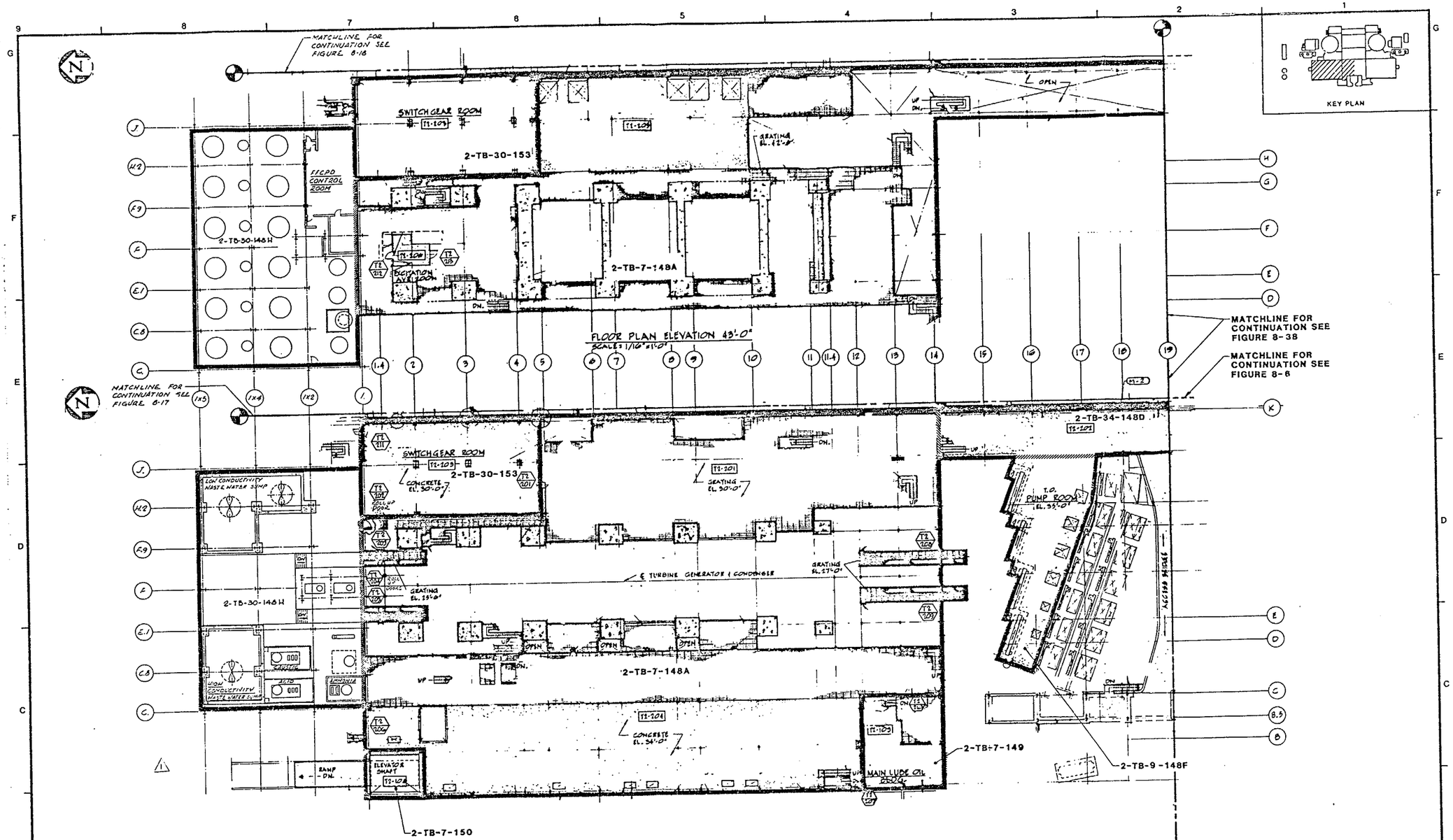

KEY PLAN
℄ CONTAINMENT BLDG.
MATCHLINE FOR CONTINUATION SEE FIGURE 8-13
OPEN
2-FH-30-174A
2-FH-15-124
A/C ROOM NO.1
302
2-FH-45-132
STAIR NO.1
301
LEDGE
FUEL TRANSFER POOL
306
2-FH-17-123
SPENT FUEL POOL
307
SPENT FUEL CASK LAYDOWN
308
A/C ROOM NO. 2
309
2-FH-45-130
FHZ 301
FHZ 307
2-FH-30-129
ELECTRICAL CABLE RISER SHAFT
304
DUMBWAITER
305
2-PE-30-2C
2-PE-45-3A
FHZ 304
FHZ 303
VESTIBULE
303
2-PE-45-3A
2-FH-45-131
2-CT-16-142C
FLOOR PLAN EL. 45'-0"
SCALE: 1/8" = 1'-0"
MATCHLINE FOR CONTINUATION SEE FIGURE 8-3
MATCHLINE FOR CONTINUATION SEE FIGURE 8-14
2-FH-30-129
℄ CONTAINMENT BLDG.
NEW FUEL STORAGE RACK AREA
408
HATCH
HATCH
2-FH-45-132
MECH. SHAFT
402
2-FH-17-123
OPERATING FLOOR
406
OPEN
SPENT FUEL CASK LAYDOWN WASHDOWN AREA
407
2-FH-15-124
STAIR NO.1
401
PARAPET
CURB
VEST
403
FHZ 401
FHZ 407
FHZ 405
HVAC DUCTS
409
FHZ 404
ELECTRICAL CABLE RISER SHAFT
404
DUMBWAITER
405
FHZ 403
2-FH-30-129
2-FH-63-134
2-PE-63-3B
2-PE-63-3B
2-CT-16-142C
FLOOR PLAN EL. 63'-6"
SCALE: 1/8" = 1'-0"
MATCHLINE FOR CONTINUATION SEE FIGURE 8-4
2-FH-45-132
MECHANICAL SHAFT
2-FH-15-124
DUMBWAITER SHAFT (2 HR. CONSTRUCTION)
2-FH-45-132
A/C ROOM
2-FH-30-127
TOOL RECONTN. ROOM
2-FH-15-125
STORAGE SPACE
SECTION STAIR NO. 1 UNIT 2
SCALE: 1/4" = 1'-0"
LEGEND:
FIRE AREA BOUNDARY
FIRE ZONE BOUNDARY
UNDERGROUND AREA/ZONE
INFORMATION ONLY
QC-IIIFPS
SAN ONOFRE NUCLEAR GENERATING STATION
FUEL HANDLING BLDG
UNIT 2 EL. 45'-0" & 63'-6"
FIRE AREA BOUNDARY
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
IMPELL
SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-20
REV. 3
SHEET 1 OF 3
REV. DATE DESCRIPTION DWN. CHK. P.E.
3 1-11-90 AS BUILT BY FLOOR/INC. CHG. PKG SF-088 ADDED QC
2 5-2-88 INCORP. CHANGE PKG. BF-095
1 11-10-87 INCORP CHANGE PKG. SF-018
0 2-19-83 FIRE AREA/ZONE BOUNDARY DEFINITIONS
2 (FHA REV 6 2/80)
83020


SALTWATER COOLING PIPE TUNNEL
2-TB-(-9)-148E
PARTIAL PLAN @ ELEVATION -9'-0"
N.T.S.
LUBE OIL RESERVOIR
2-TB-7-149
MAIN LUBE OIL BLDG. EL. 23'-0"
PARTIAL PLAN
SCALE: 1/16" = 1'-0"
KEY PLAN
MATCHLINE FOR CONTINUATION SEE FIGURE 8-16
MATCHLINE FOR CONTINUATION SEE FIGURE 8-37
MATCHLINE FOR CONTINUATION SEE FIGURE 8-5
SEE PARTIAL PLAN AT EL. -9'-0"
2-TB-(-9)-148E
148G
CONC. ACCESS ROAD
2-TB-7-148B
BATTERY ROOM
PUMP ROOM
GRATING EL. 7'-0"
GRATING EL. 12'-0"
SUMP
℄ TURBINE GENERATOR
℄ CONDENSER
2-TB-7-148A
CHEMICAL FEED AREA (UNIT 2 ONLY)
2-TB-9-148F
℄ CRANERAIL
MAIN LUBE OIL BLDG
ELEVATOR SHAFT
2-TB-7-150
2-TB-7-149
2-TB-9-148C
INFORMATION ONLY
LEGEND :
FIRE AREA BOUNDARY
FIRE ZONE BOUNDARY
UNDERGROUND AREA/ZONE
FLOOR PLAN ELEVATION 7'-0"
SCALE: 1/16" = 1'-0"
SAN ONOFRE NUCLEAR GENERATING STATION
TURBINE BUILDING
UNIT 2 EL. 7'-0"
FIRE AREA BOUNDARY
SOUTHERN CALIFORNIA EDISON COMPANY, LOS ANGELES, CALIF.
IMPELL
UFHA REV.4 8/88
SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-21
REV. 2
SHEET 1 OF 4
2 5-23-88 UPDATED FOR FHA REVISION
1 11-10-87 INCORP. CHANGE PKG. SF-018
0 12-19-83 FIRE AREA/ZONE BOUNDARY DEFINITIONS
REV. DATE DESCRIPTION DWN. CHK. P.E.
83021
30X
MICROFILMED FROM BEST AVAILABLE COPY



FLOOR PLAN ELEVATION 30'-0" & 34'-0"
SCALE: 1/16"=1'-0"

LEGEND :
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

INFORMATION ONLY

QC III-FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
2	1-9-96	INCORP. DCN 1.	JCL		
1	11-17-94	INCORP CHANGE PACKAGE (SF-066) AS BUILT BY BNPC	AO		
0	12-9-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

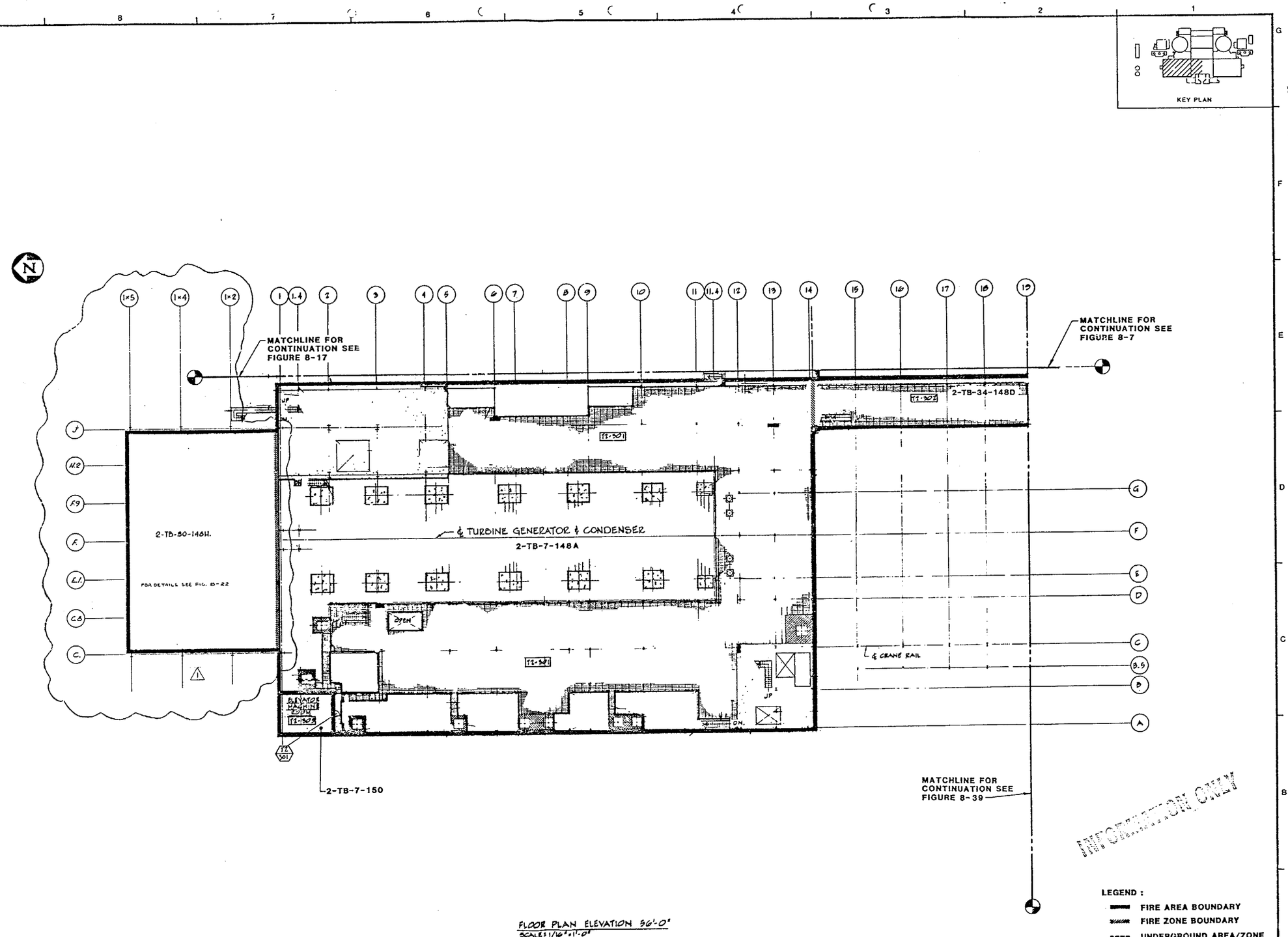
TURBINE BUILDING
UNIT 2 EL. 34'-0" & 43'-0"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-22
REV. 2
SHEET 1 OF 3

2 UFHA REV. 11 2/96 83022



FLOOR PLAN ELEVATION 56'-0"
SCALE: 1/16" = 1'-0"

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
1	12-17-86	INCORP. CHANGE PACKAGE (BF-059) AS BUILT BY BNRC	LA		
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

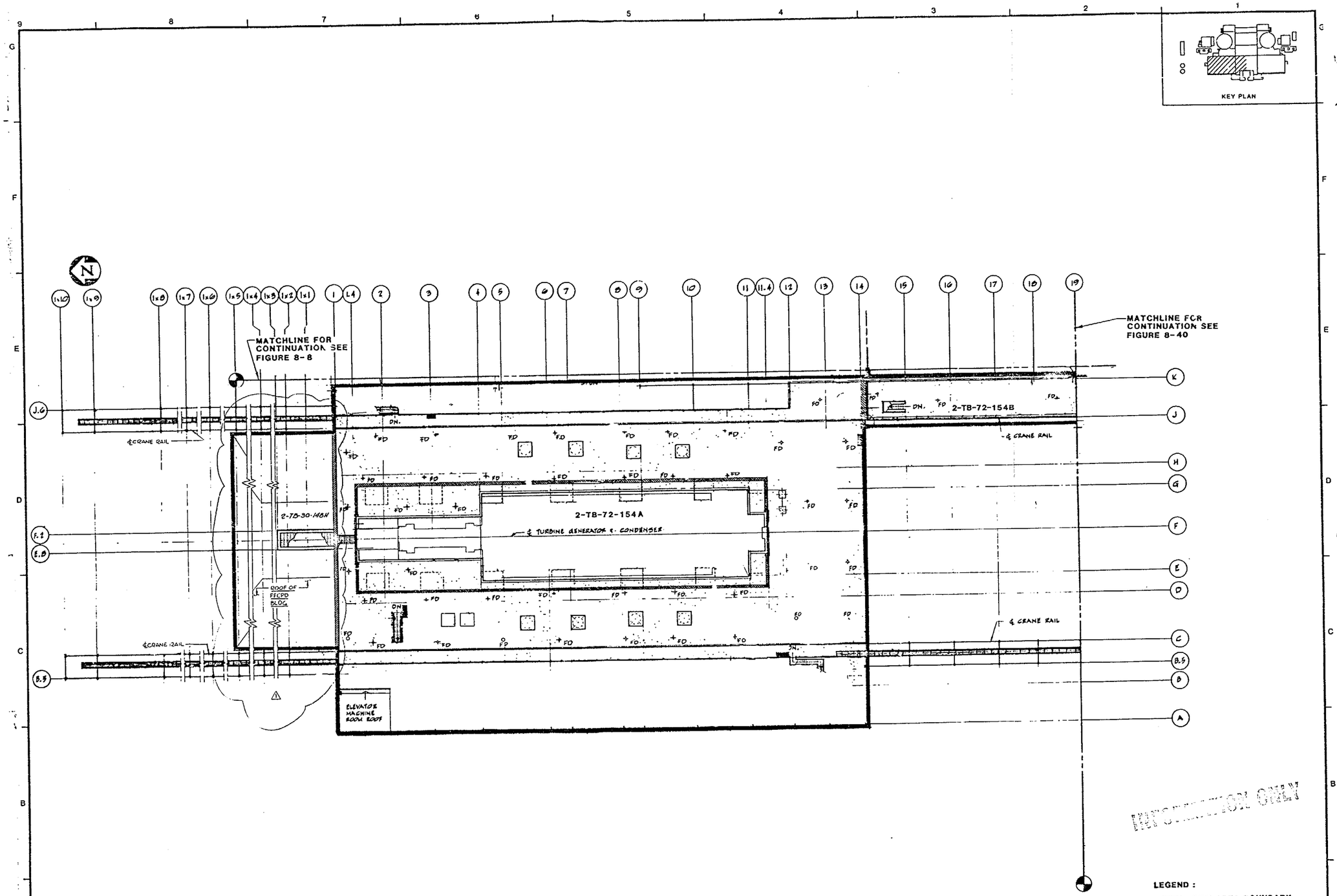
TURBINE BUILDING
UNIT 2 EL. 56'-0"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL Corporation

SCALE:	AS NOTED
JOB NO.	0310-017
FIGURE NUMBER	8-23
REV.	1.
SHEET	1 OF 3

83023



FLOOR PLAN ELEVATION 72'-6"
SCALE: 1/16" = 1'-0"

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
1	12-17-82	INCORP CHANGE PACKAGE (DF-086) AS BUILT DF SHVC			
0	2-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

TURBINE BUILDING
UNIT 2 EL. 72'-6"
FIRE AREA BOUNDARY

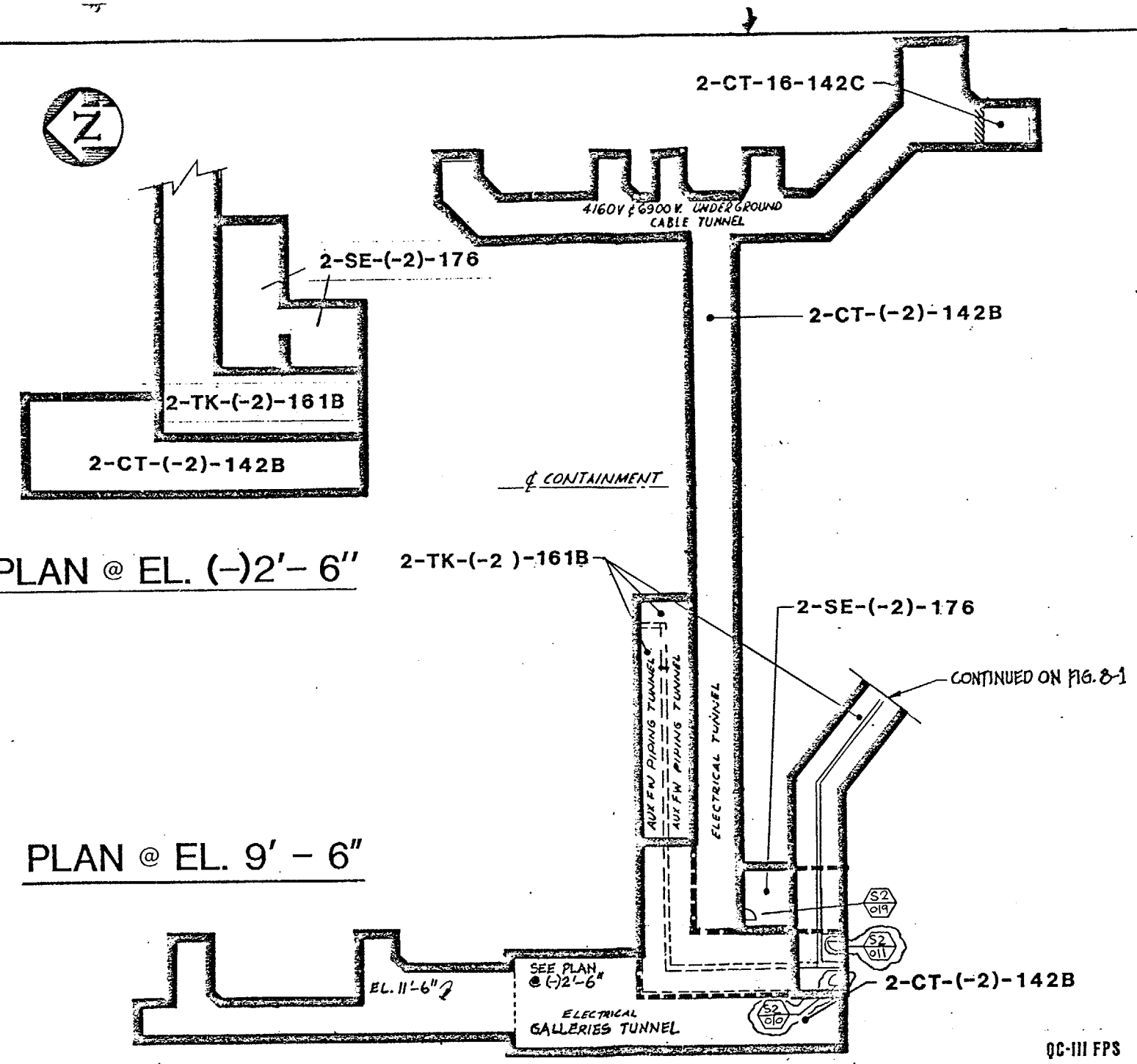
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

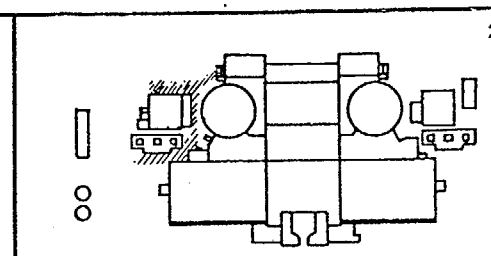
IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-24
REV. 1
SHEET 1 OF 3

83024

INFORMATION ONLY





INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

NOTES :

1) SEE ARCHITECTURAL AND CIVIL-STRUCTURAL DRAWINGS FOR WALL CONSTRUCTION AND CONFIGURATION

QC-III FPS

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.	P.E.
3	1-22-90	AS BUILT BY FLUOR; INC. CHG. PKG. SF-101		S.S.		
2	1-27-87	INCORPORATE CHANGE PACKAGES SF-062 AND SF-064				
1	5-5-88	UPDATED FOR FHA REVISION				
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS				

SAN ONOFRE NUCLEAR GENERATING STATION

CABLE TUNNEL AREA
UNIT 2 EL.9'-6"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE : N.T.S.

JOB NO. 0310-017

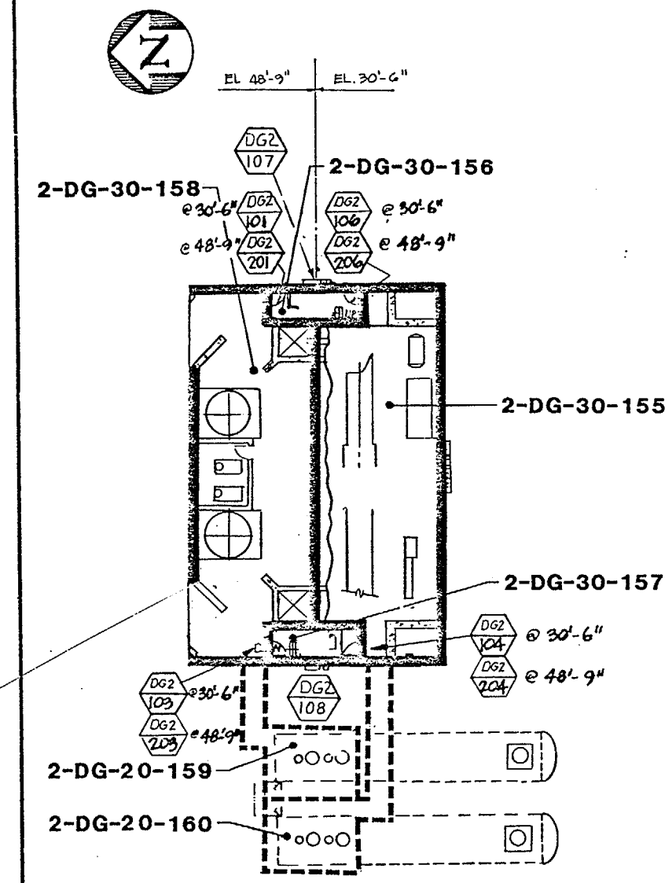
FIGURE NUMBER 8-25 REV. 3

SHEET 1 OF 3

UFHA REV 6 2/90

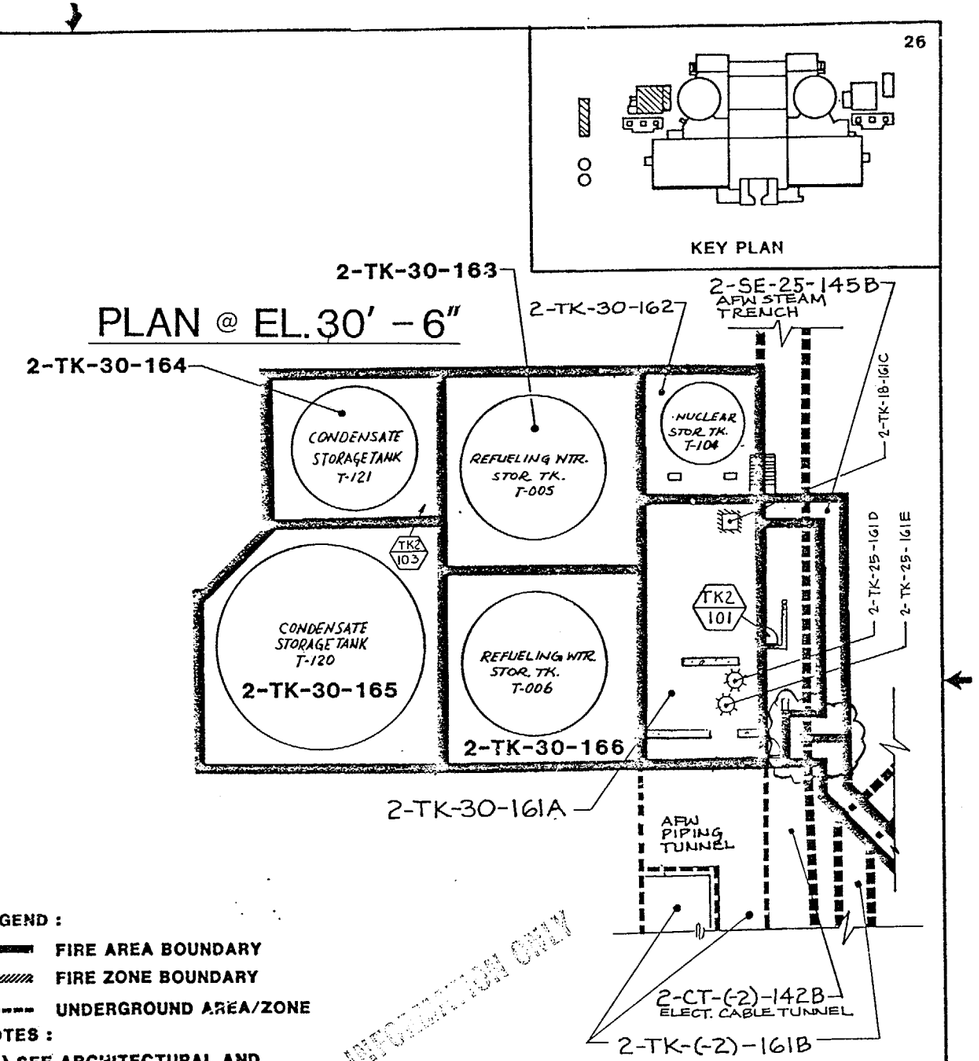
83025

17X



PLAN @ ELEVATION 30' – 6"

AND ELEV. 48'-9"



PLAN @ EL.30' – 6"

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

NOTES :

1) SEE ARCHITECTURAL AND CIVIL-STRUCTURAL DRAWINGS FOR WALL CONSTRUCTION AND CONFIGURATION

INFORMATION ONLY

QC-III FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
6	11-1-00	INCORPORATED DCN 4	EF	VM	
5	1-12-98	INCORPORATED DCN 2 & 3	EF	VM	
4	1-10-96	INCORP. DCN 1	LOD		
3	1-22-90	AS BUILT BY FLUOR INC. CHG PKG SF-086, ADDED QC	P.J. J		
2	5-10-88	UPDATED FOR FHA REVISION			
1	11-20-85	INCORP. CHG. PKG. SF-007	RR		
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

DIESEL GEN. BLDG. & TANK BLDG.
UNIT 2 EL.30'-6"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE : N.T.S.
JOB NO. 0310-017
FIGURE NUMBER 8-26
REV. 6
SHEET 1 OF 4

UFHA REV. 11 2/96

83026

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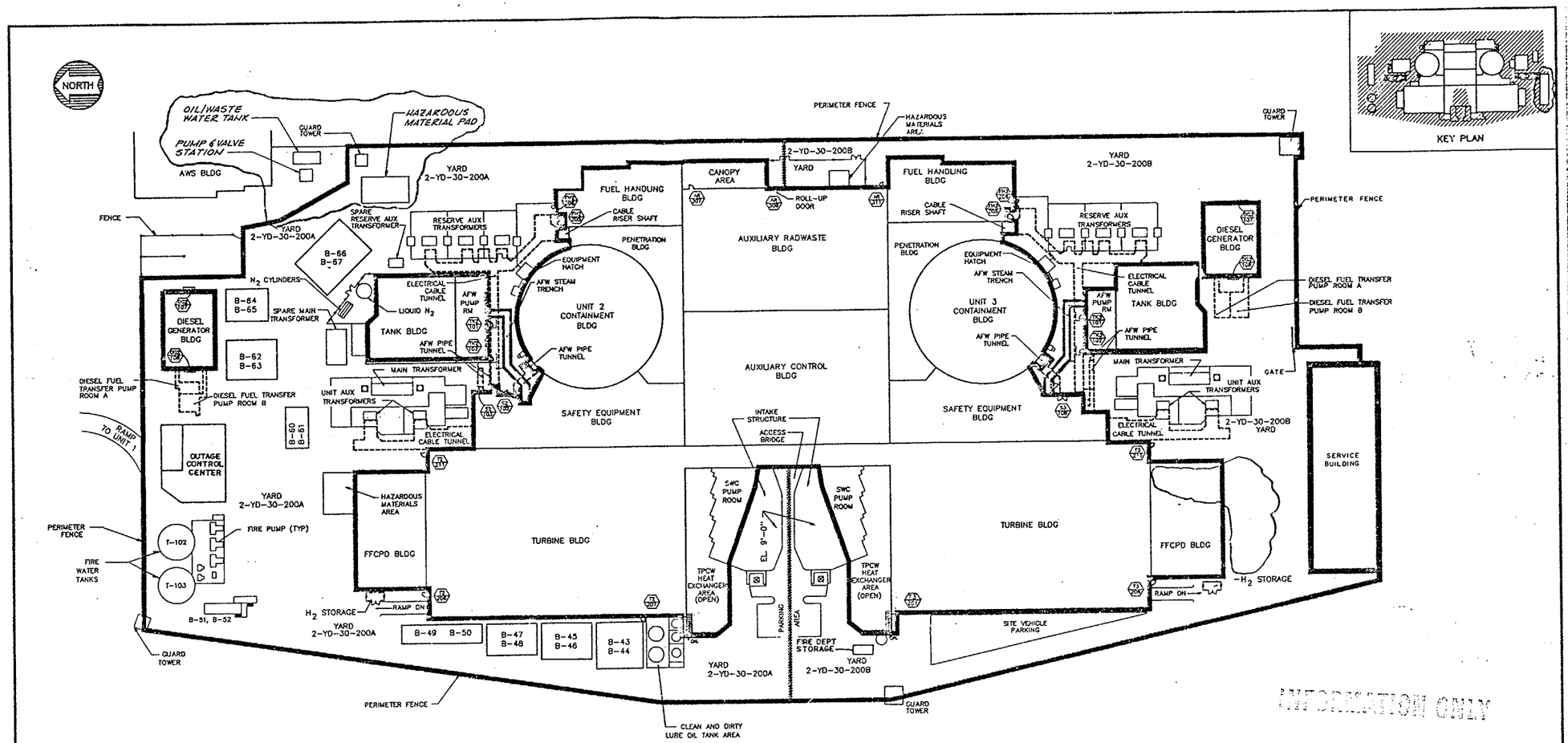

INFORMATION ONLY

LEGEND:
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

PLAN @ ELEVATION 30'-0"

SCALE: N.T.S.

QC-IIIFPS

REV.	DATE	DESCRIPTION	QA/NE	DWN.	CHK.	P.E.
5	1-10-98	INCORP DCN 667		N/A	IGG	
4	1-5-96	INCORP. DCNS. 4 & 5.		JCL		
3	12-15-92	INCORP. DCN 3. AS BUILT.		LGS		
2	1-6-92	INCORP DCN #1 (MMP 3/3-6616,7556) & DCN #2 (MMP 3/3-6775,0250)				
1	1-22-90	AS BUILT BY FLUOR INC. PER CHANGE PACKAGE SF-006 SF-102, SF-112 & SF-127, 10040 QC				
0	7 8 88	FIRE AREA BOUNDARY				

SAN ONOFRE NUCLEAR GENERATING STATION

YARD
UNITS 2 and 3 EL. 30'-0"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

SCALE: AS NOTED
JOB NO. 0310-189
FIGURE NUMBER 8-26A REV. 5
SHEET 1 OF 3

UFHA REV. 11 2/96 83316

24X

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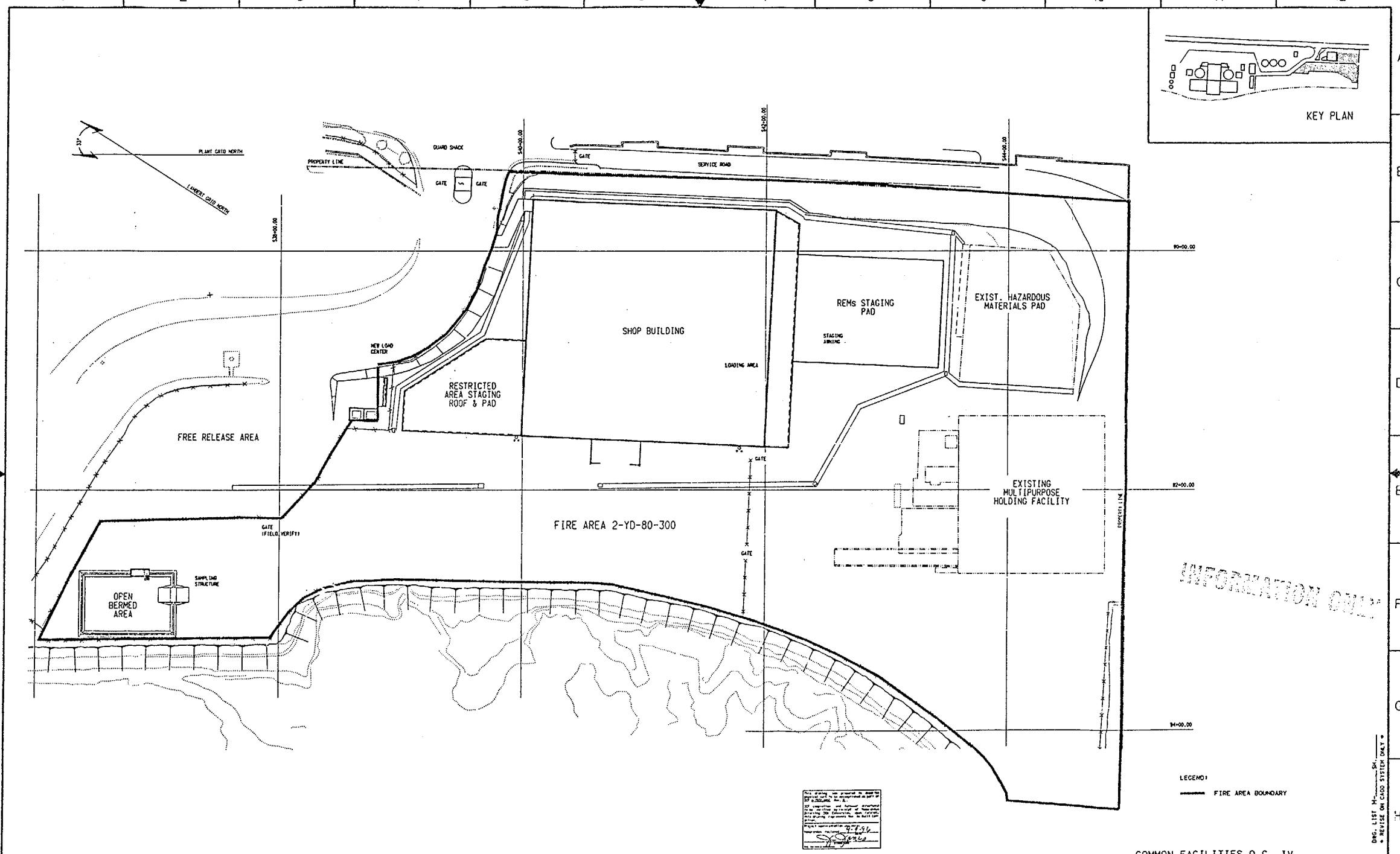
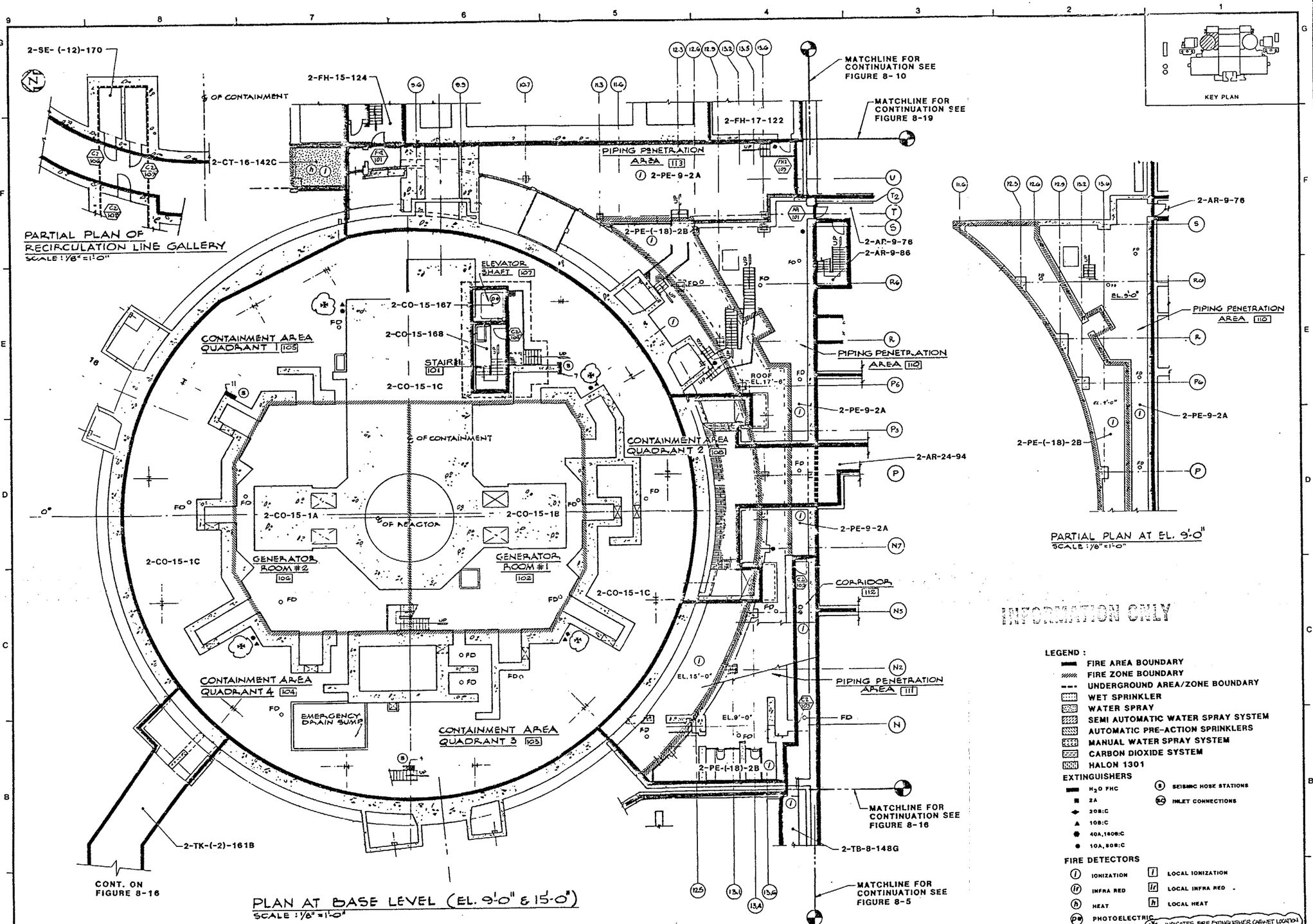

KEY PLAN
PLANT GRID NORTH
LAMBERT GRID NORTH
PROPERTY LINE
GUARD SHACK
GATE
SERVICE ROAD
SHOP BUILDING
LOADING AREA
REMs STAGING PAD
STAGING AREAS
EXIST. HAZARDOUS MATERIALS PAD
NEW LOAD CENTER
RESTRICTED AREA STAGING ROOF & PAD
FREE RELEASE AREA
EXISTING MULTIPURPOSE HOLDING FACILITY
FIRE AREA 2-YD-80-300
GATE (FIELD VERIFY)
OPEN BERMED AREA
SAMPLING STRUCTURE
EXPOSED LINE
INFORMATION ONLY
LEGEND:
FIRE AREA BOUNDARY
COMMON FACILITIES Q.C. IV
SAN ONOFRE NUCLEAR GENERATING STATION
SOUTH YARD FACILITY
PLAN @ EL. 103'-0"
FIRE AREA BOUNDARY
SCALE: N.T.S
JOB NO.
FIGURE NUMBER 8-268
REV. 0
SHEET 1 OF 2
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
0 FOR CONSTRUCTION
REV. DATE DESCRIPTION DWN. CHK. P.C.
83319

30X

Unit 2
Features
Tab



INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C
- (S) SEISMIC HOSE STATIONS
- (S/C) INLET CONNECTIONS

FIRE DETECTORS

- (I) IONIZATION
- (Ir) INFRA RED
- (h) HEAT
- (PE) PHOTOELECTRIC
- [I] LOCAL IONIZATION
- [Ir] LOCAL INFRA RED
- [h] LOCAL HEAT

(FE) INDICATES FIRE EXTINGUISHER CABINET LOCATION

QC-IIIFPS

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.
2	11-01-10	INCORPORATED DCN 1		EP	VK
1	2260	AS BUILT OF FLOOR INCORPORATE SPRINKLERS		S.S.	
0	12282	FIRE PROTECTION FEATURES			

SAN ONOFRE NUCLEAR GENERATING STATION

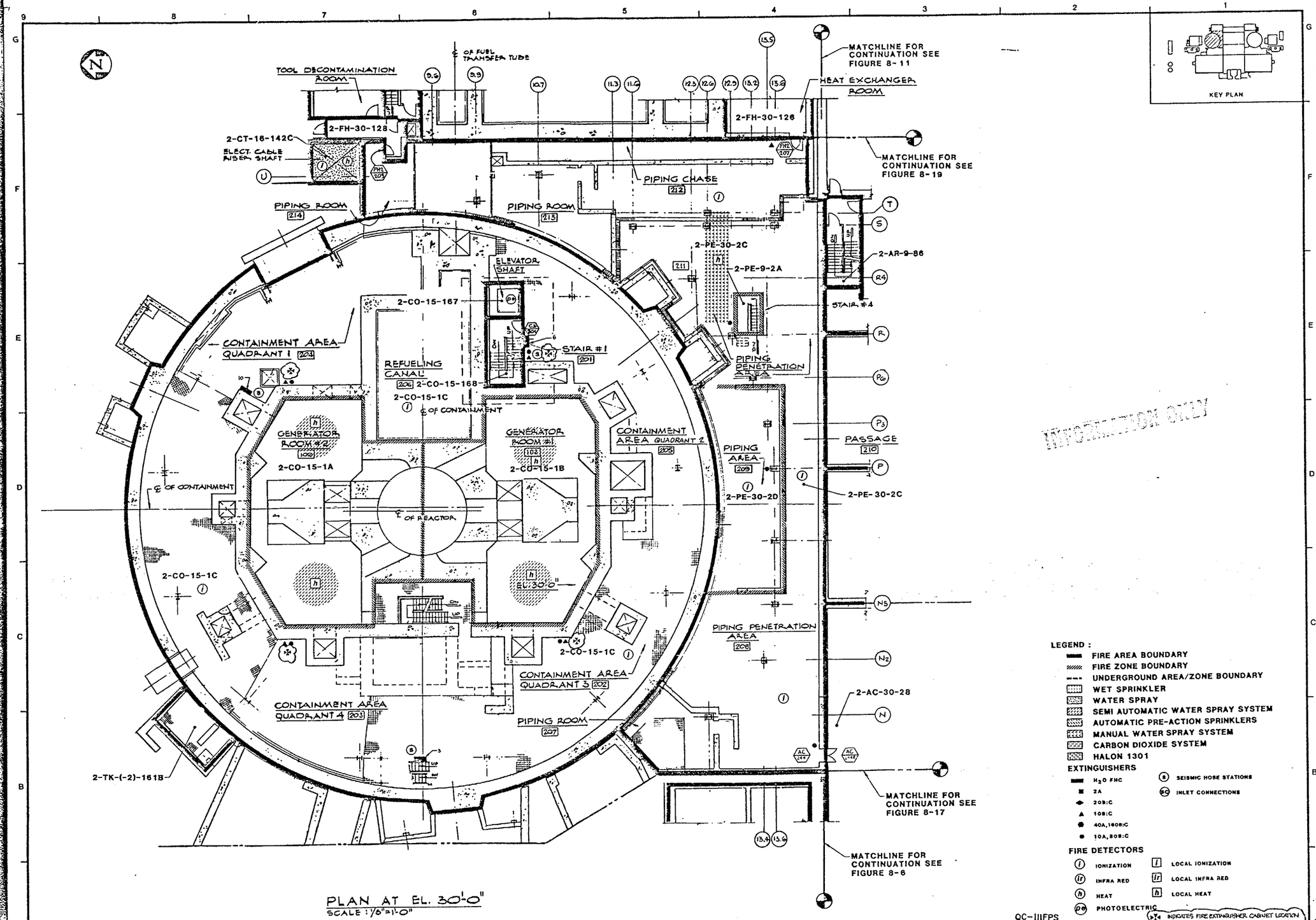
CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 2 EL. 9'-0" & 15'-0"
FIRE PROTECTION FEATURES

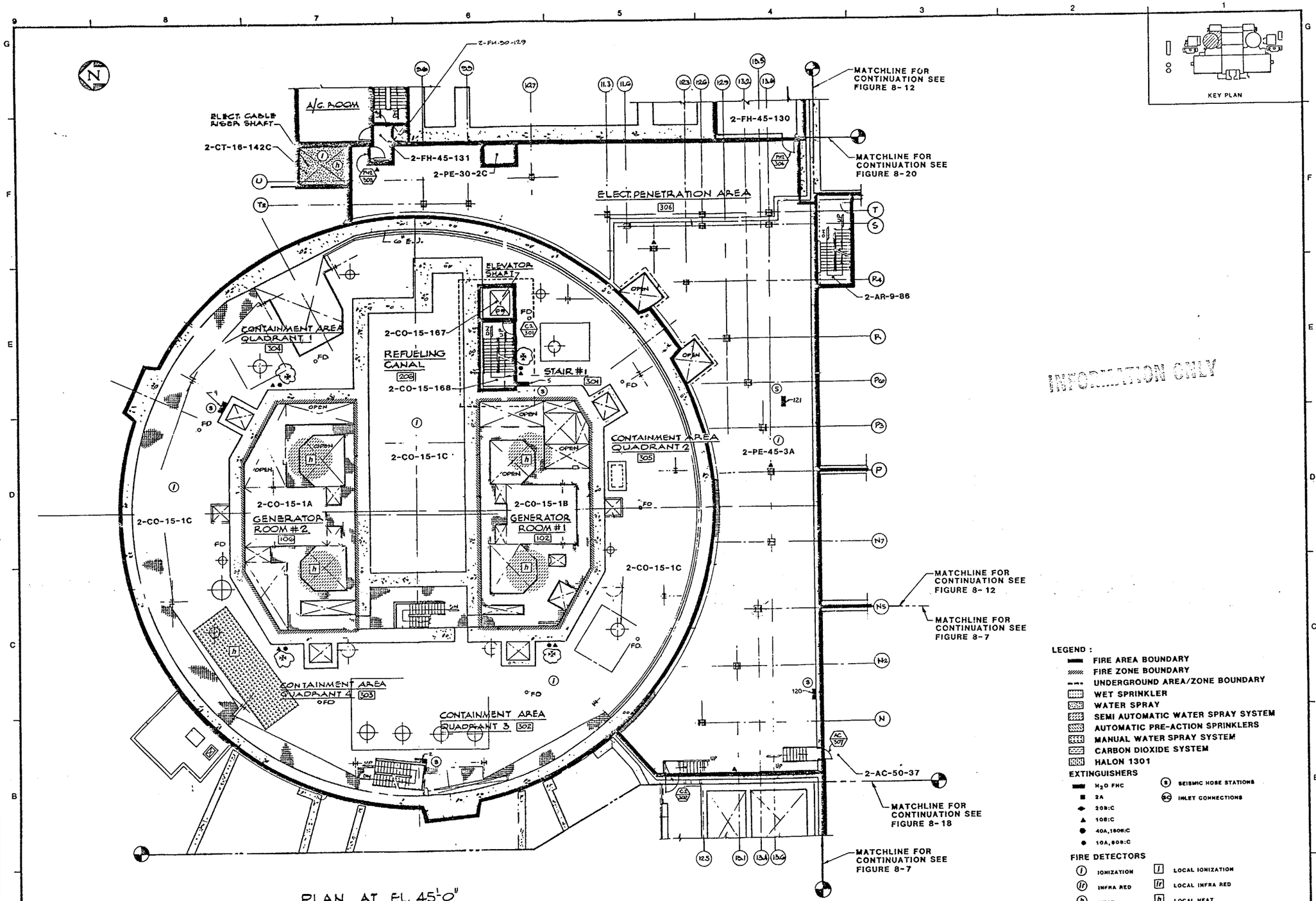
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-1
REV. 2
SHEET 2 OF 4

UFHA REV 6 85051


TOOL DECONTAMINATION ROOM
℄ OF FUEL TRANSFER TUBE
MATCHLINE FOR CONTINUATION SEE FIGURE 8-11
HEAT EXCHANGER ROOM
2-FH-30-128
2-FH-30-126
2-CT-16-142C
ELECT. CABLE RISER SHAFT
MATCHLINE FOR CONTINUATION SEE FIGURE 8-19
PIPING CHASE 212
PIPING ROOM 214
PIPING ROOM 213
2-PE-30-2C
2-PE-9-2A
2-AR-9-86
ELEVATOR SHAFT
STAIR #4
2-CO-15-167
CONTAINMENT AREA QUADRANT 1 204
STAIR #1 201
REFUELING CANAL 206
2-CO-15-168
2-CO-15-1C
℄ OF CONTAINMENT
PIPING PENETRATION AREA
GENERATOR ROOM #2 100
2-CO-15-1A
GENERATOR ROOM #1 102
2-CO-15-1B
CONTAINMENT AREA QUADRANT 2 205
PIPING AREA 209
PASSAGE 210
2-PE-30-2D
2-PE-30-2C
℄ OF REACTOR
EL. 30'-0"
PIPING PENETRATION AREA 208
CONTAINMENT AREA QUADRANT 3 202
CONTAINMENT AREA QUADRANT 4 203
PIPING ROOM 207
2-AC-30-28
2-TK-(-2)-161B
MATCHLINE FOR CONTINUATION SEE FIGURE 8-17
MATCHLINE FOR CONTINUATION SEE FIGURE 8-6
KEY PLAN
INFORMATION ONLY
LEGEND :
FIRE AREA BOUNDARY
FIRE ZONE BOUNDARY
UNDERGROUND AREA/ZONE BOUNDARY
WET SPRINKLER
WATER SPRAY
SEMI AUTOMATIC WATER SPRAY SYSTEM
AUTOMATIC PRE-ACTION SPRINKLERS
MANUAL WATER SPRAY SYSTEM
CARBON DIOXIDE SYSTEM
HALON 1301
EXTINGUISHERS
H2O FHC
2A
20B:C
10B:C
40A,160B:C
10A,80B:C
SEISMIC HOSE STATIONS
INLET CONNECTIONS
FIRE DETECTORS
IONIZATION
INFRA RED
HEAT
PHOTOELECTRIC
LOCAL IONIZATION
LOCAL INFRA RED
LOCAL HEAT
INDICATES FIRE EXTINGUISHER CABINET LOCATION
QC-IIIFPS
PLAN AT EL. 30'-0"
SCALE : 1/8"=1'-0"
SAN ONOFRE NUCLEAR GENERATING STATION
CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 2 EL. 30'-0"
FIRE PROTECTION FEATURES
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
IMPELL
SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-2
REV. 4
SHEET 2 OF 4
4 10-30-03 INCORPORATED OCN 1
3 2-2-90 AS BUILT BY PLUS 1 FIRE PROTECTION ADDED
2 12-15-86 INCORP CHG PKG SF042 AS BUILT BY EWOC
1 11-20-84 UPDATED FOR FHA REVISION.
0 12-6-83 FIRE PROTECTION FEATURES
REV. DATE DESCRIPTION DR. DWN. CHK.
UFHA REV 6 2/90 83052



PLAN AT EL. 45'-0"
SCALE : 1/8" = 1'-0"

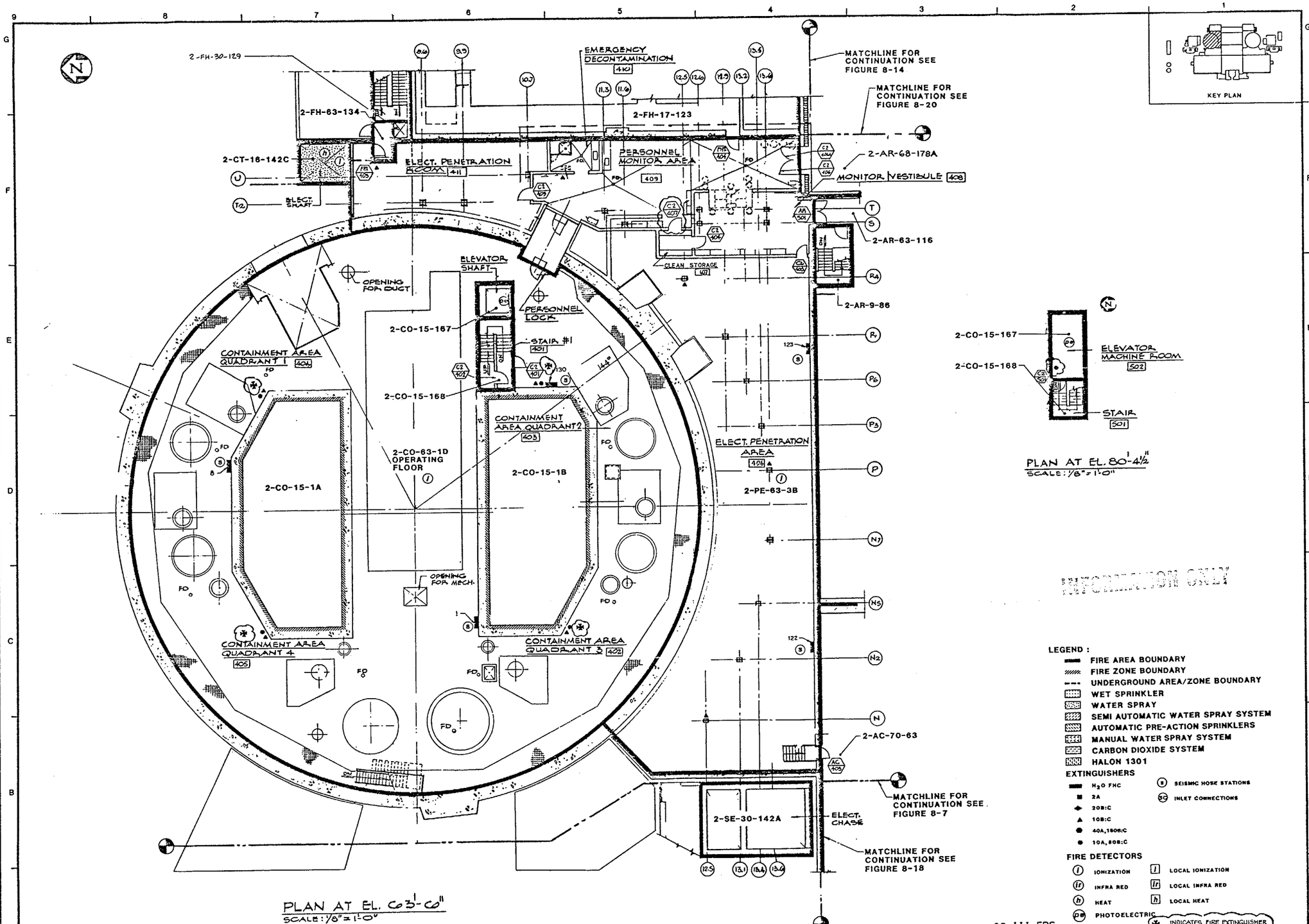
QC-III FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
4	10-10-07	INCORPORATED DCN 1	EF	VM	
3	1-11-97	AS BUILT BY PLACING FIRE STOPPAGE PACKAGES SF-124, SF-125, SF-126 AND SF-127	S.S.		
2	11-22-93	INCORP. CHG. PKG. SF-026	RR		
1	11-20-84	UPDATED FOR FHA REVISION			
0	12-26-83	FIRE PROTECTION FEATURES			

SAN ONOFRE NUCLEAR GENERATING STATION
CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 2 EL. 45'-0"
FIRE PROTECTION FEATURES
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-3
REV. 4
SHEET 2 OF 4

2 UFHA REV 6 2/90 83053



PLAN AT EL. 63'-6"
SCALE: 1/8" = 1'-0"

PLAN AT EL. 80'-4½"
SCALE: 1/8" = 1'-0"

INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C
- SEISMIC HOSE STATIONS
- INLET CONNECTIONS

FIRE DETECTORS

- I IONIZATION
- IF INFRA RED
- H HEAT
- PE PHOTOELECTRIC
- I LOCAL IONIZATION
- IF LOCAL INFRA RED
- H LOCAL HEAT

INDICATES FIRE EXTINGUISHER CABINET LOCATION

QC III-FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
G	10-15-00	INCORPORATED DCN 3,4 & 5	EP		
5	1-11-96	INCORP DCN 2 (A86-1497)	LOO		
4	4-21-94	INCORP DCN 1			
3	1-11-91	[illegible]			
2	12-6-89	INCORP. CHANGE PKG. BF-095			
1	11-28-84	UPDATED FOR FHA REVISION			
0	12-26-80	FIRE PROTECTION FEATURES			

SAN ONOFRE NUCLEAR GENERATING STATION

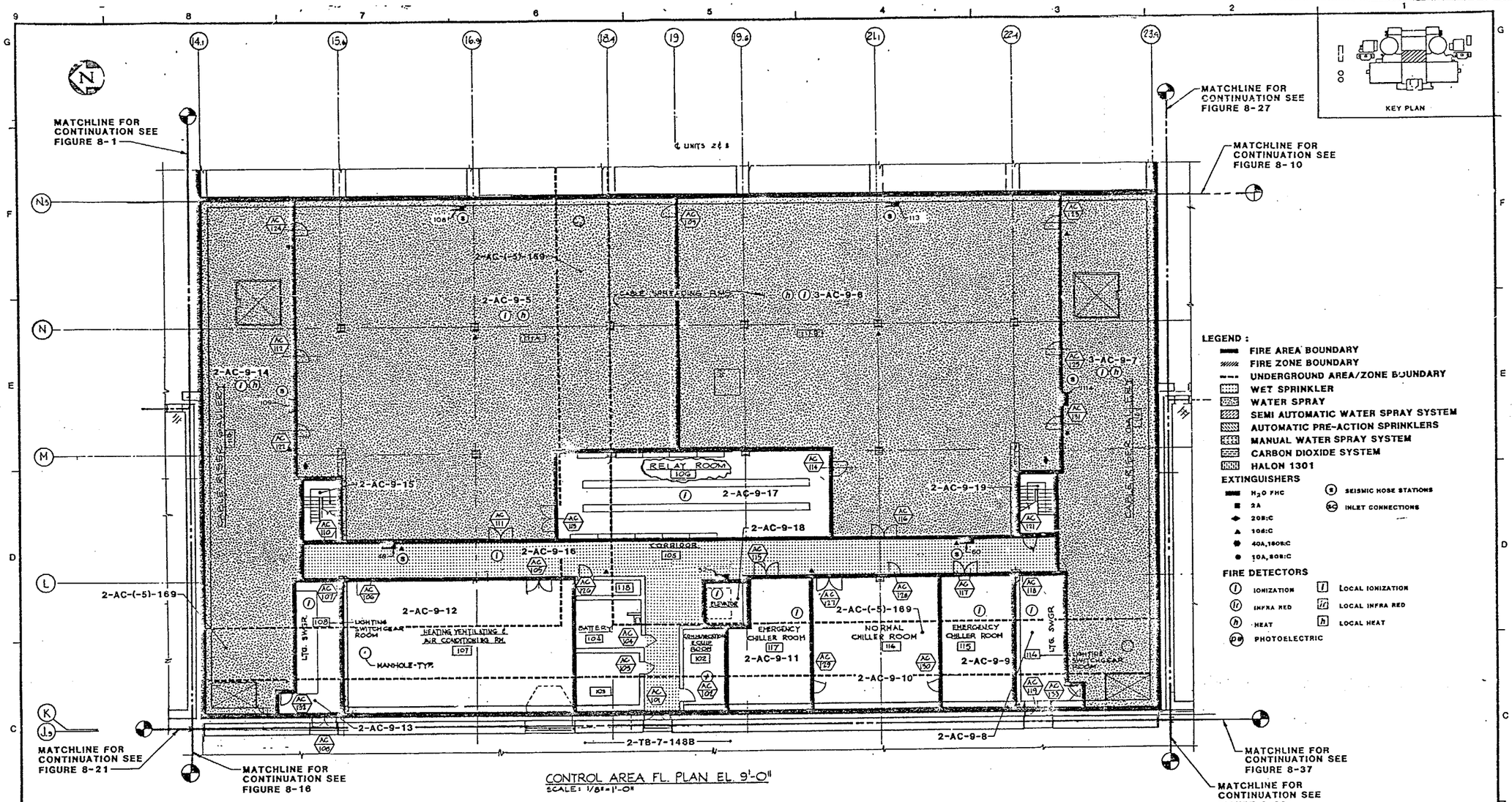
CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 2 EL. 63'-6"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-4
REV. 6
SHEET 2 OF 4

UFHA REV. 11 2/96 83054



CONTROL AREA FL. PLAN EL. 9'-0"
SCALE: 1/8"=1'-0"

INFORMATION ONLY

QC III-FPS

REV.	DATE	DESCRIPTION	QA	DR.	CHK.	ENG.
3	1-10-90	INCORP. DCN 2		RF	TGG	
2	1-11-74	INCORP. DCN 1.		LOO	RCL	
-1	2-2-70	AS BUILT PT PLUS/INC. CHG-PKG SF-114	RF	S.S.		
0	12-2-68	FIRE PROTECTION FEATURES				

SAN ONOFRE NUCLEAR GENERATING STATION

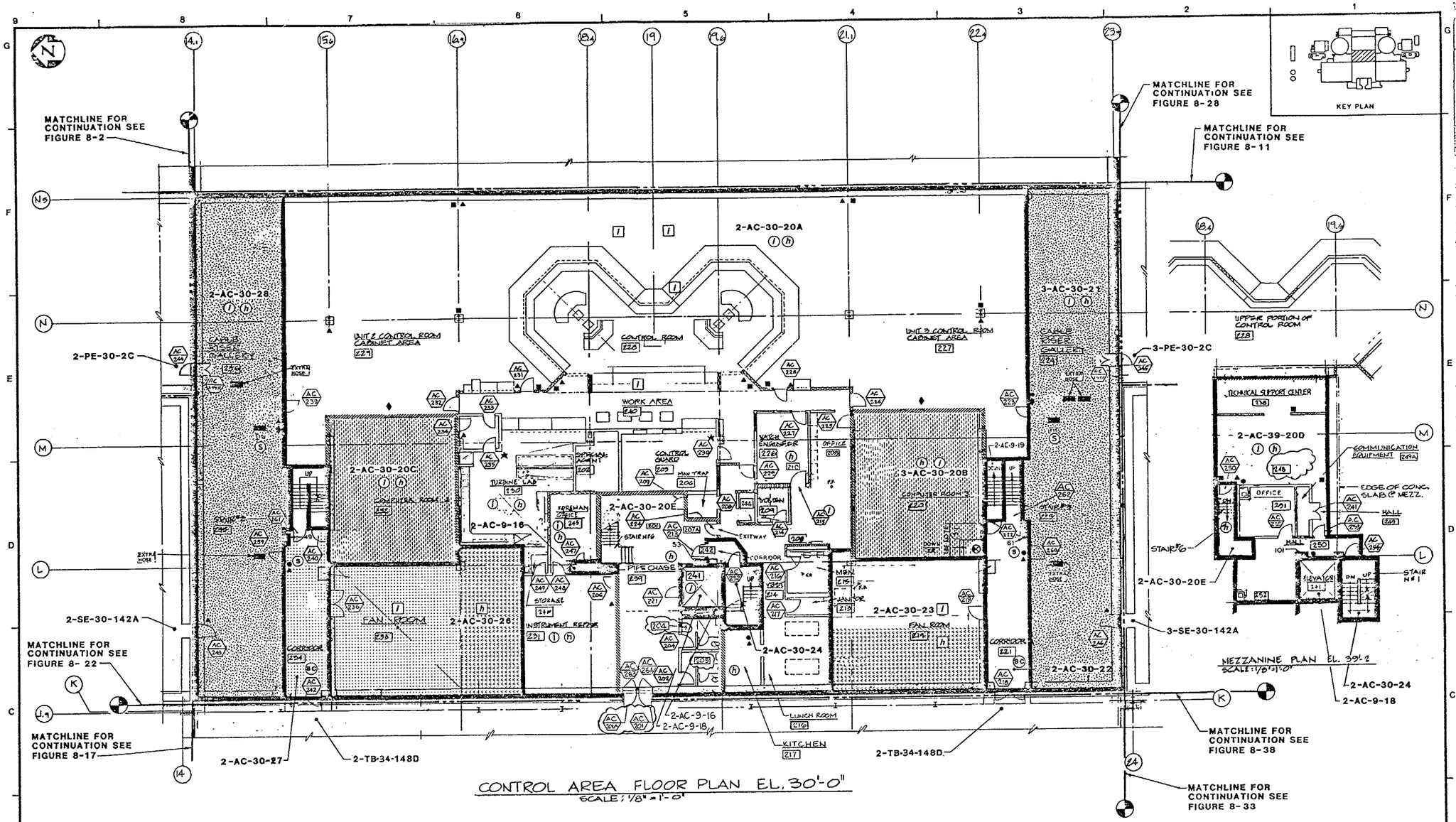
AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 9'-0"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-5
REV. 3
SHEET 2 OF 3

UFHA REV. 11 2/96 83055



LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C
- 2A:60BC

FIRE DETECTORS

- (I) IONIZATION
- (Ir) INFRA RED
- (h) HEAT
- (pe) PHOTOELECTRIC
- (I) LOCAL IONIZATION
- (Ir) LOCAL INFRA RED
- (h) LOCAL HEAT
- (S) SEISMIC HOSE STATIONS
- (SC) INLET CONNECTIONS

INFORMATION ONLY

QC III-FPS

REV.	DATE	DESCRIPTION	GA	DWN.	CHK.	P.E.
6	4-19-94	INCORP. DCN 1	—	JC		
5	1-22-10	SA MODIFY BY ALLGRAM, PER CHG/REQ AF-154		JC		
4	1-28-00	INCORPORATE CHANGE PACKAGE SF - 062		EFC		
9	9-28-00	INCORP. DCN 4 THRU 7		EF	VM	
8	1-10-98	INCORP. DCN 3		EF	SSG	
7	1-10-96	INCORP. DCN 2 (FCN NO. F-1448C)		LOD		
0	12-26-83	FIRE PROTECTION FEATURES				

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 30'-0"
FIRE PROTECTION FEATURES

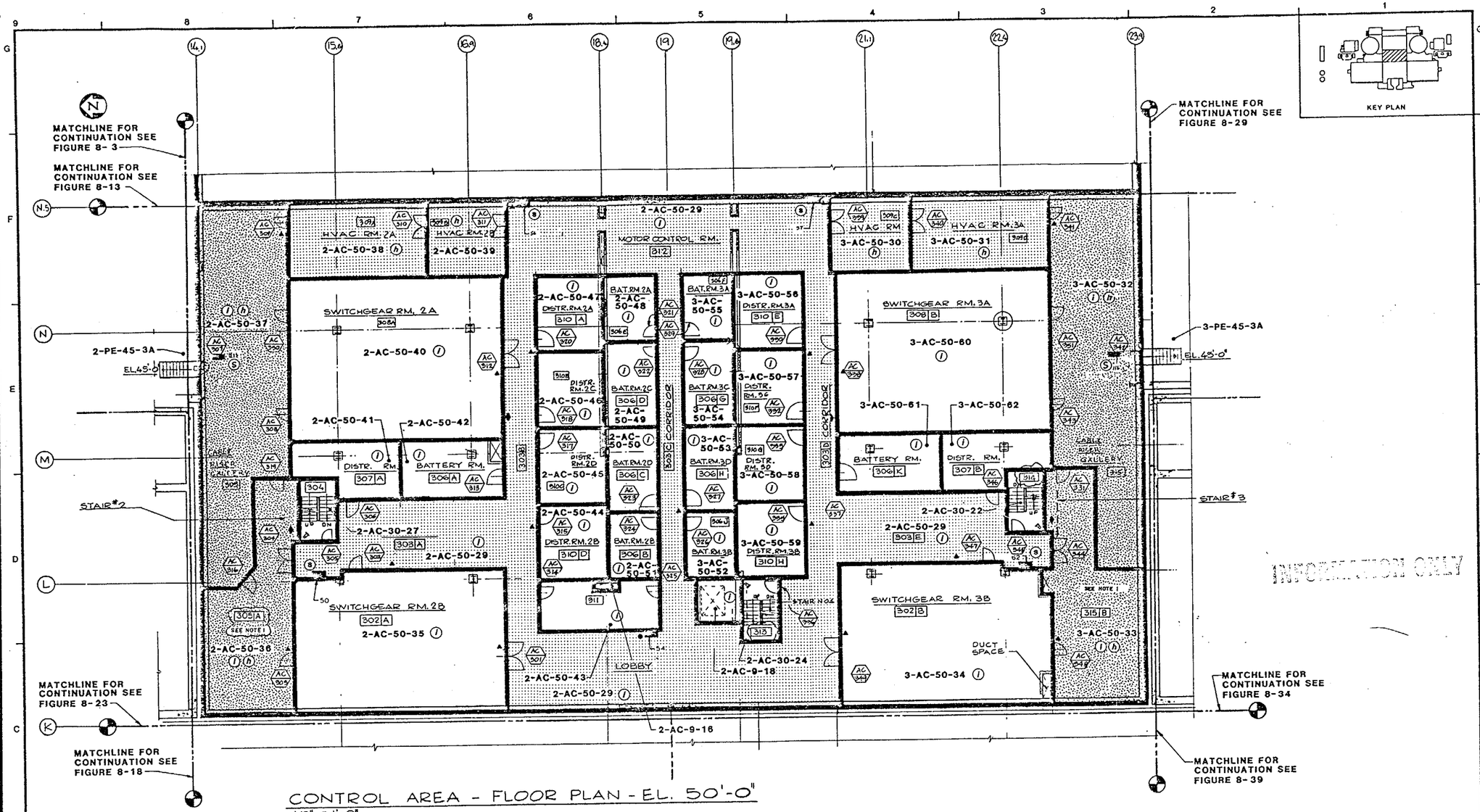
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-6
REV. 9
SHEET 2 OF 4

UFHA REV. 11 2/96

83056



CONTROL AREA - FLOOR PLAN - EL. 50'-0"

1/8" = 1'-0"

NOTE:

1. REFERENCES TO THIS ROOM NUMBER ON CERTAIN ELECTRICAL DRAWINGS MAY NOT DESIGNATE THE "A" OR "B", DESIGNATOR ADDED TO CLARIFY FIRE BARRIER/ PENETRATION SEAL DRAWINGS.

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C
- (S) SEISMIC HOSE STATIONS
- (SC) INLET CONNECTIONS

FIRE DETECTORS

- (I) IONIZATION
- (Ir) INFRA RED
- (h) HEAT
- (PE) PHOTOELECTRIC
- [I] LOCAL IONIZATION
- [Ir] LOCAL INFRA RED
- [h] LOCAL HEAT

QUALITY CLASS III FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
4	10-24-00	INCORPORATED OCAI 2	EF		
3	12-16-92	INCORP. DCN 1, AS BUILT.	LGS		
2	11-13-89	INCORP. CHANGE PKG. SF-021	EE		
1	11-29-84	UPDATED FOR FHA REVISION			
0	12-26-83	FIRE PROTECTION FEATURES			

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 50'-0"
FIRE PROTECTION FEATURES

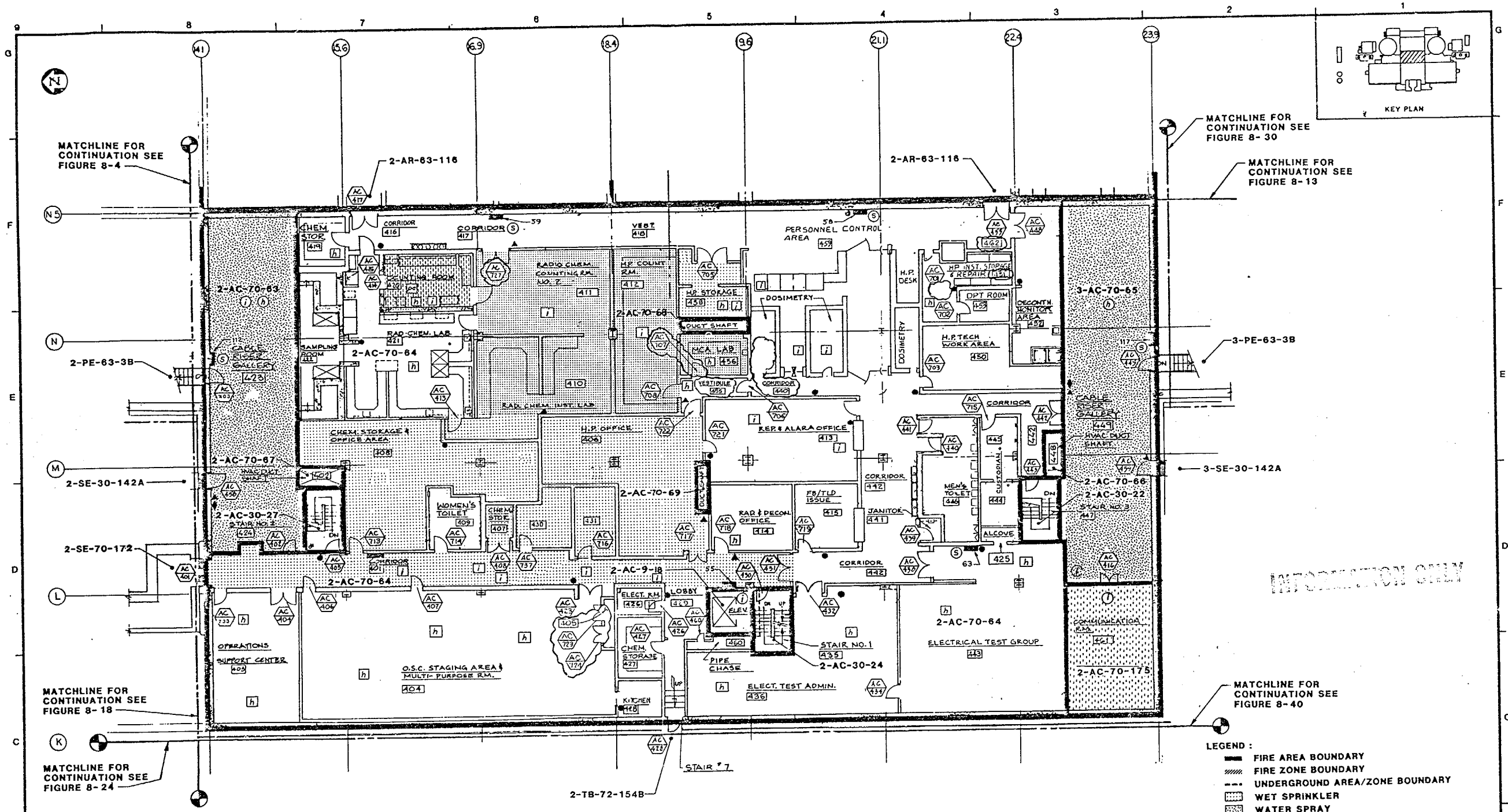
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-7
REV. 4
SHEET 2 OF 4

UFHA REV. 9 2/93 83057

INFORMATION ONLY



CONTROL AREA FLOOR PLAN EL. 70'-0"

SCALE : N.T.S.

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C
- 2A:60BC

SEISMIC HOSE STATIONS

INLET CONNECTIONS

FIRE DETECTORS

- IONIZATION
- INFRA RED
- HEAT
- PHOTOELECTRIC
- LOCAL IONIZATION
- LOCAL INFRA RED
- LOCAL HEAT
- LOCAL PHOTOELECTRIC

INFORMATION ONLY

QC III-FPS

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.	APP.
6	5-11-94	INCORP. DCN 1, AS BUILT.	—	J.D.		—
5	[illegible]	AS BUILT BY FLUOR INC CHG. PKG SF-085, SF-092	W	[illegible]		
4	7-31-96	INCORPORATE CHANGE PACKAGES SF-062 AND FF-001		RTC		
10	9-29-00	INCORPORATED DCN'S 5 THRU 9		EF		
9	1-9-98	INC. DCN 4		NM		
8	1-10-96	INCORP. DCN 3		JCM		
7	4-22-94	INCORP DCN 2		MR		

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 70'-0
FIRE PROTECTION FEATURES

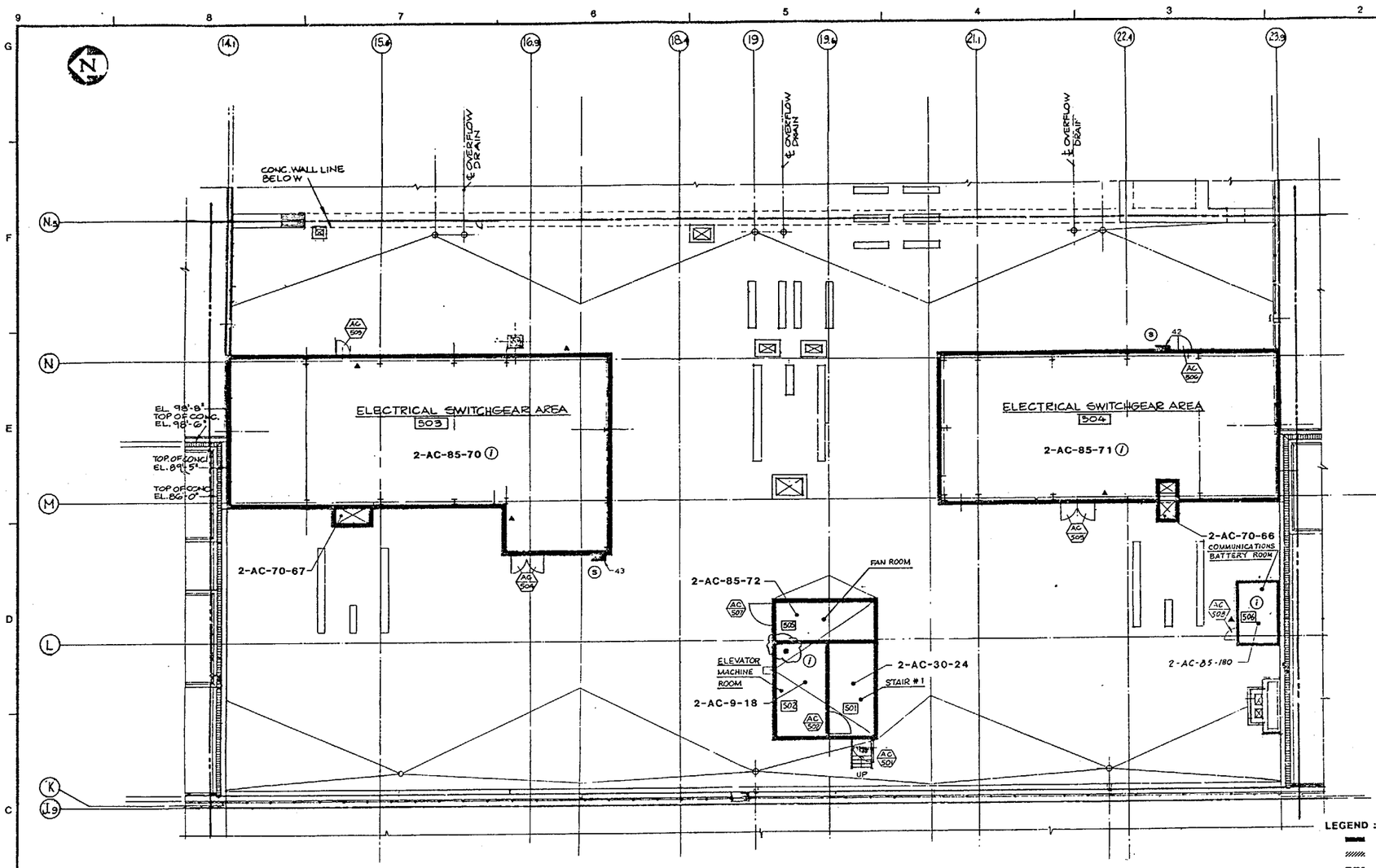
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-8
REV. 10
SHEET 2 OF 4

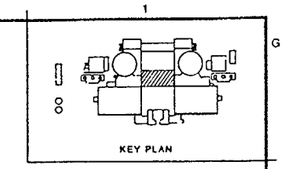
2 UFHA REV. 11 2/96

83058



CONTROL AREA - ROOF PLAN EL. 85'-0"

SCALE: 1/8" = 1'-0"



INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C
- (S) SEISMIC HOSE STATIONS
- (SC) INLET CONNECTIONS

FIRE DETECTORS

- (I) IONIZATION
- (Ir) INFRA RED
- (h) HEAT
- (pe) PHOTOELECTRIC
- [I] LOCAL IONIZATION
- [Ir] LOCAL INFRA RED
- [h] LOCAL HEAT

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
4	10-31-00	INCORPORATED DCN 2	LLP	YM	
3	1-10-98	INC. DCN 1	MM	JGG	
2	12-17-96	INCORP. CHANGE NOTICE (8,596) AS BUILT BY BWPC	[illegible]	[illegible]	[illegible]
1	1-16-87	INCORP CHANGE PKG SF-020	RR	[illegible]	[illegible]
0	122083	FIRE PROTECTION FEATURES	[illegible]	[illegible]	

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 85'-0"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

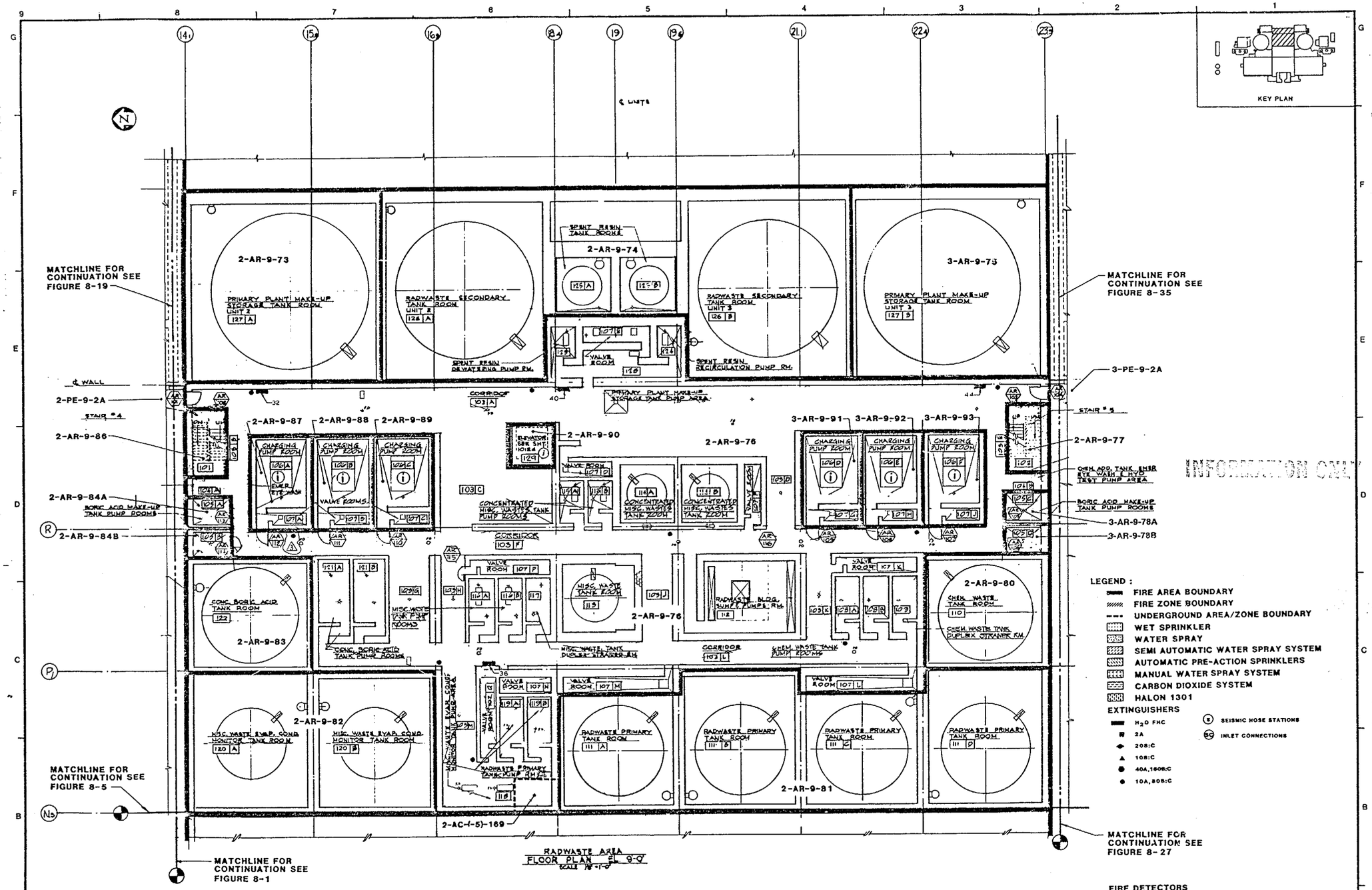
SCALE: AS NOTED

JOB NO. 0310-017

FIGURE NUMBER 8-9 REV. 4

SHEET 2 OF 4

UFHA REV.3 2/87 83059



INFORMATION ONLY

REV.	DATE	DESCRIPTION	DWN.	CHK.	APP.
3	12-17-86	INCORP. CHANGE PACKAGE (SP-035) AS BUILT BY SWPC	Jones	[illegible]	[illegible]
2	11-10-83	INCORP. CHG PKG. BE-065	RR	[illegible]	[illegible]
1	11-20-84	UPDATED FOR FHA REVISION.	[illegible]	[illegible]	[illegible]
0	12-26-83	FIRE PROTECTION FEATURES	[illegible]	[illegible]	[illegible]

SAN ONOFRE NUCLEAR GENERATING STATION

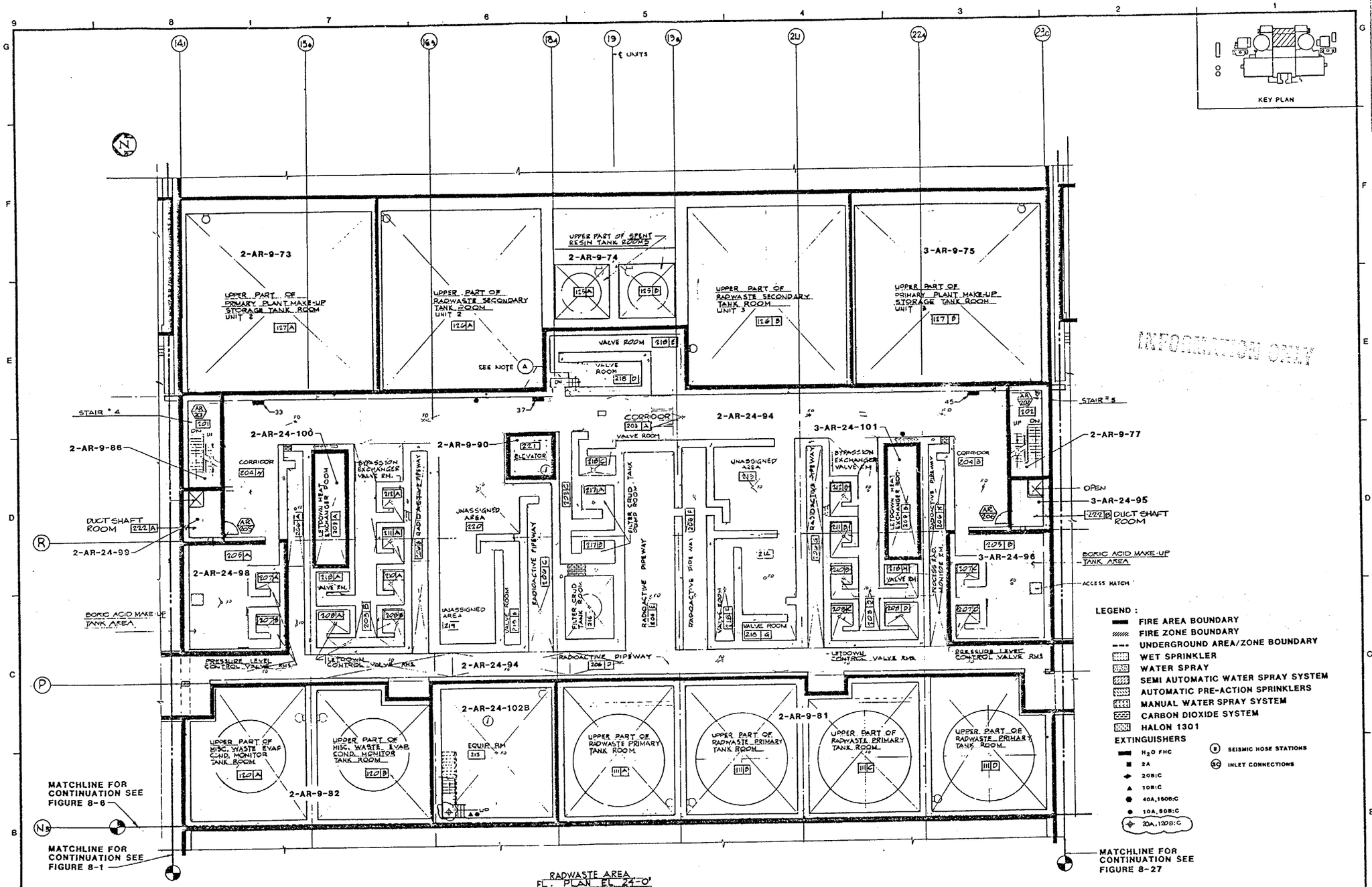
AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 9'-0"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-10
REV. 3
SHEET 2 OF 3

83060



INFORMATION ONLY

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
3	03-31-00	INCORPORATED DCN 2	EF	VM	
2	1-10-98	INC. DCN 1	MM	VM	
1	12-14-76	INCORP. CHANGE PACKAGE (SF 035) AS BUILT BY BWPC	JONES		
0	12-26-83	FIRE PROTECTION FEATURES			

SAN ONOFRE NUCLEAR GENERATING STATION

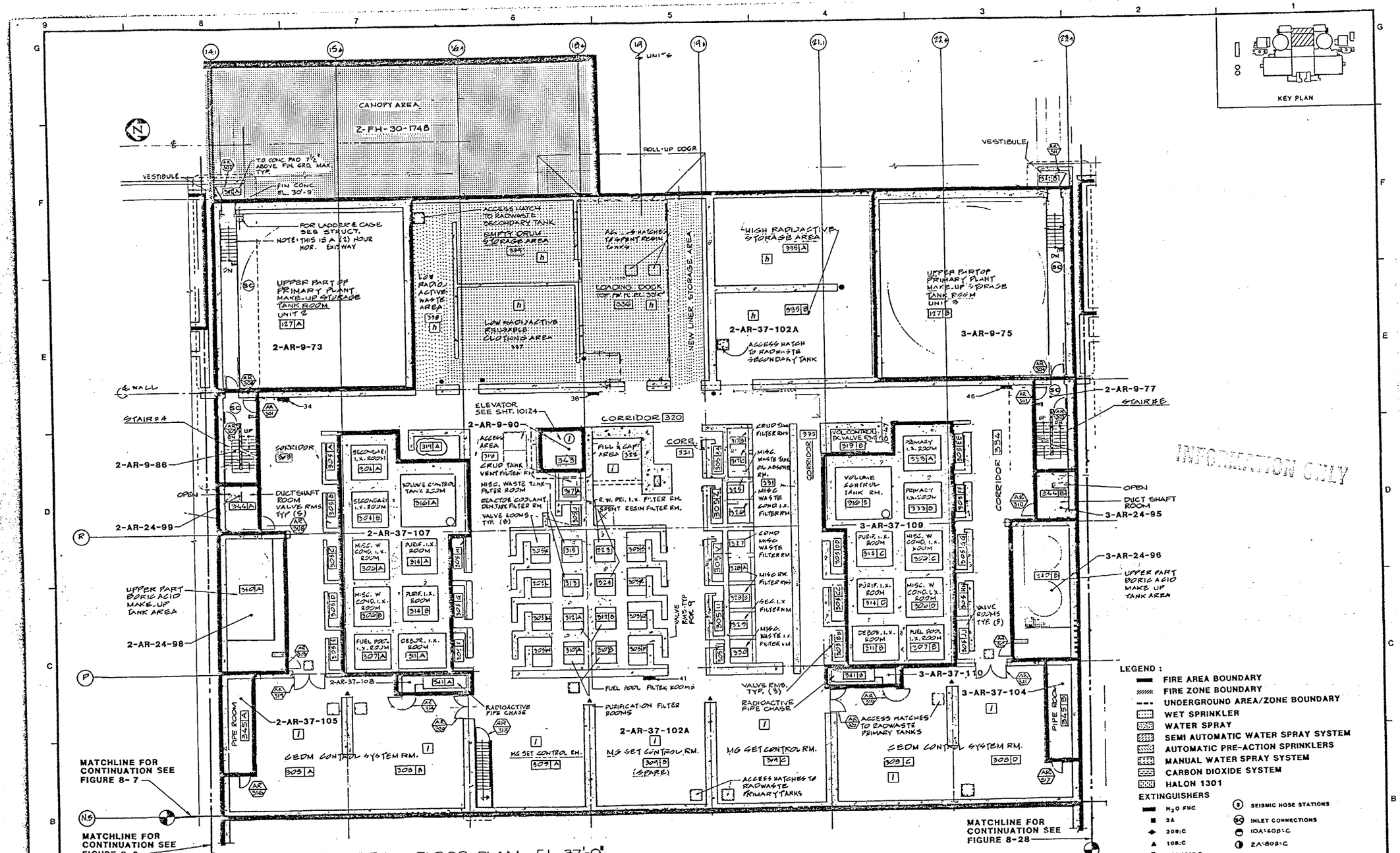
AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 24'-0"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-11
REV. 3
SHEET 2 OF 4

83061



RADWASTE AREA - FLOOR PLAN - EL. 37'-0"

SCALE: N.T.S.

INFORMATION ONLY

REV.	DATE	DESCRIPTION	DWN.	CHK.
6	1-10-98	INC. DCN 2		
5	12-16-92	INCORP. DCN 1, AS BUILT.	LGS	AK
4	1-21-90	AS BUILT BY FLUOR/JIC. CHG. PKG. SF-028	S.S.	
3	4-12-88	INCORP. CHANGE PKG. B-607, BF-095		
2	12-17-86	INCORP. CHANGE PACKAGE (SF-037) AS BUILT BY BWPC		
1	7-10-85	INCORP. CHG. PKG. SF-010	RR	
0	12-26-83	FIRE PROTECTION FEATURES		

SAN ONOFRE NUCLEAR GENERATING STATION

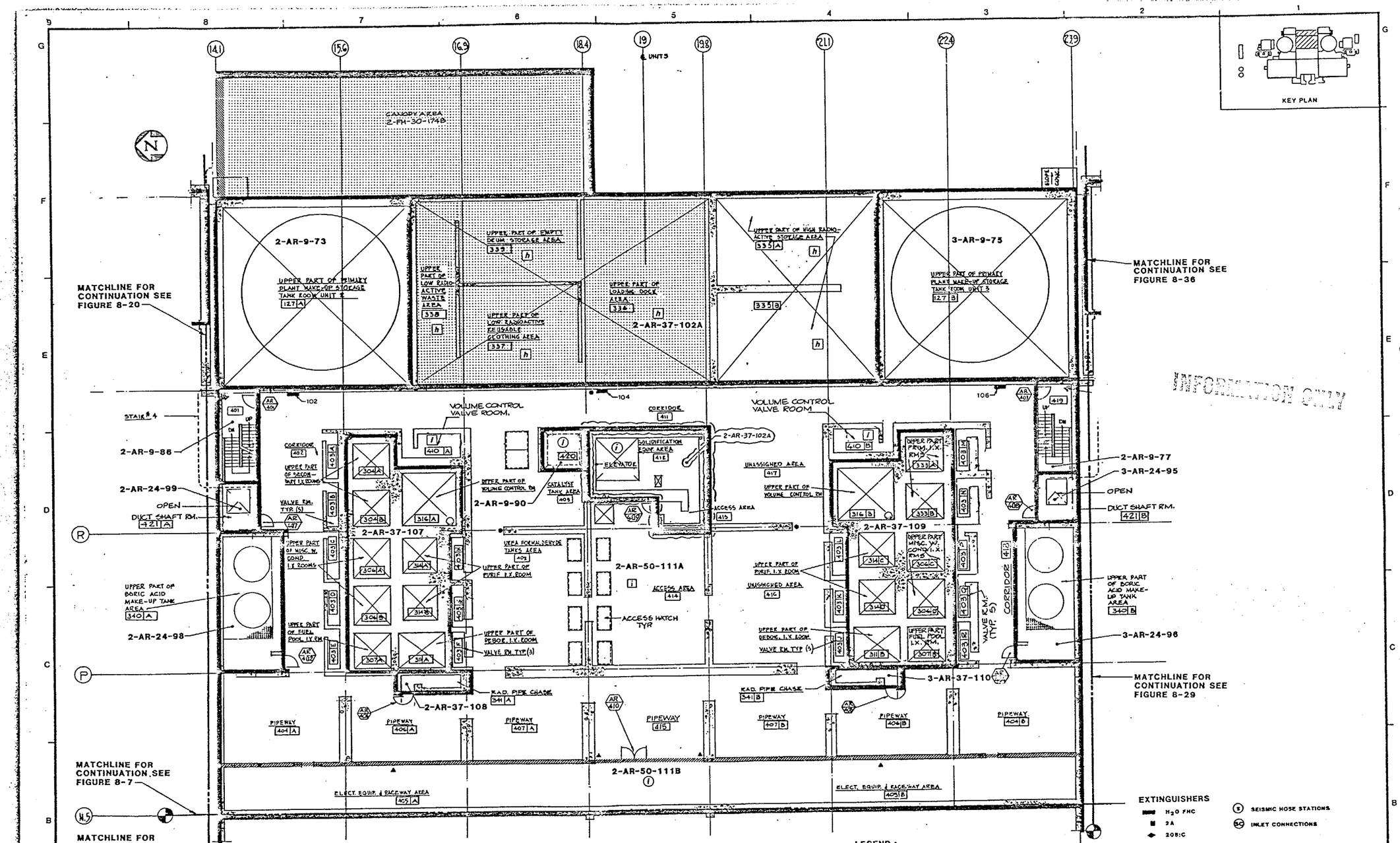
AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 37'-0"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-12
REV. 6
SHEET 2 OF 4

UFHA REV. 9 2/93 83062



RADWASTE AREA
FL. PLAN - EL. 50'-0"
SCALE: N.T.S.

EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C
- SEISMIC HOSE STATIONS
- INLET CONNECTIONS

FIRE DETECTORS

- IONIZATION
- INFRA RED
- HEAT
- PHOTOELECTRIC
- LOCAL IONIZATION
- LOCAL INFRA RED
- LOCAL HEAT

LEGEND:

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

QUALITY CLASS III FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
5	1-10-98	INC. DCN 3	NM		
4	4-21-94	INCORP. DCN 2.	NM		
3	12-16-92	INCORP. DCN 1, AS BUILT.	LGS		
2	5-23-88	UPDATED FOR FHA REVISION.			
—	—	INCORP. CHANGE PKG. B-607	—	—	—
1	11-13-87	INCORP. CHG. PKG. SF-011	EH		
0	12-20-83	FIRE PROTECTION FEATURES			

SAN ONOFRE NUCLEAR GENERATING STATION

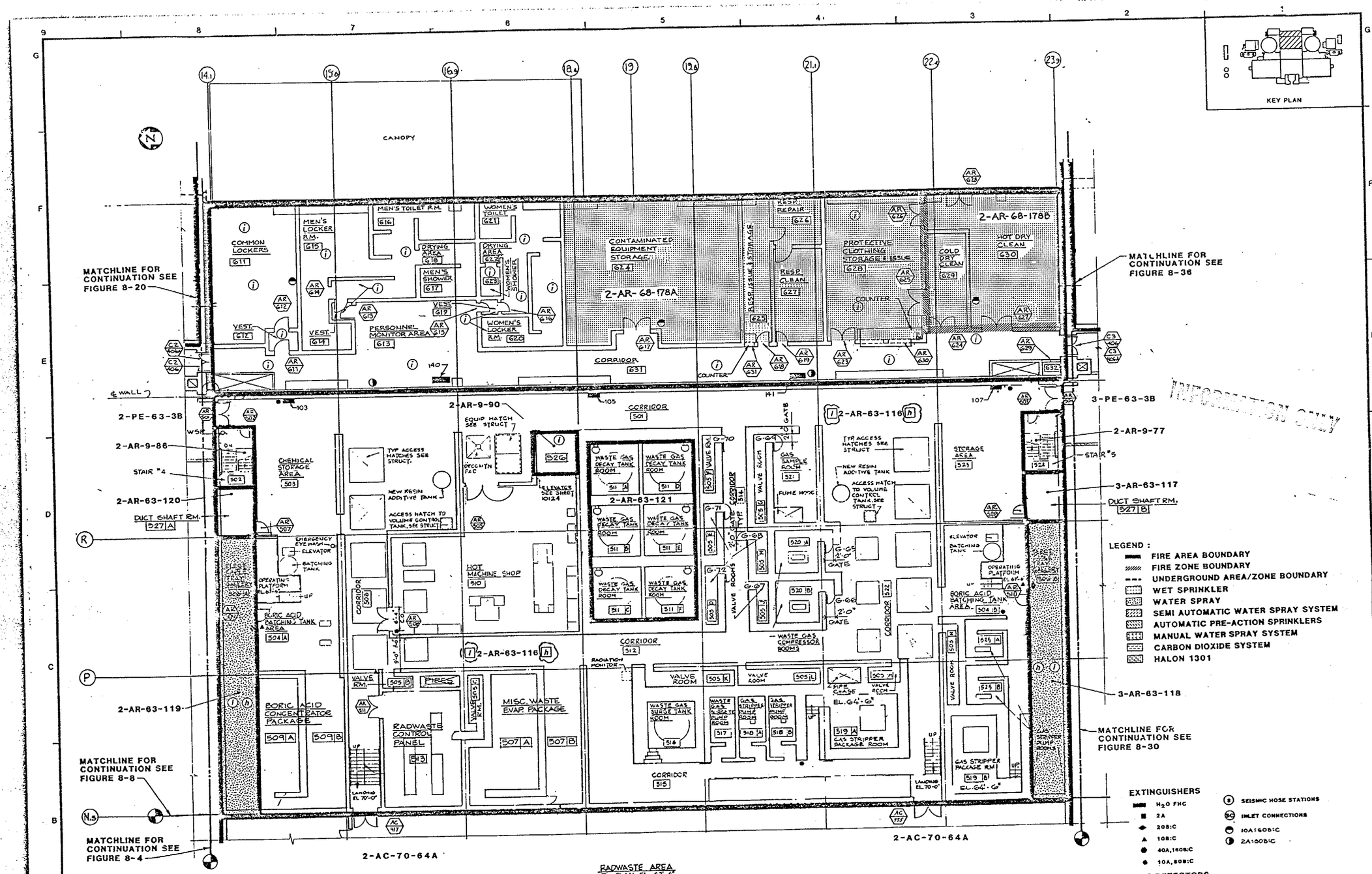
AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 50'-0"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-13
REV. 5
SHEET 2 OF 4

UFRA REV 10 6/94 83063



RADWASTE AREA
FL. PLAN EL. 63'-6"
SCALE: N.T.S.

QC III-FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
5	1-10-96	INC. DCN 2	NM	JSG	
4	1-10-96	INCORP. DCN 1	KM	JSG	
3	2-7-92	INCORP. FPA CHANGE PKG. BF-1164	RCL	BLL	
2	1-21-91	INCORPORATE CHANGE PACKAGE BF-1440	RTC		
1	4-12-90	INCORP. CHANGE PKG. BF-095	TMG	TG	
0	12-26-83	FIRE PROTECTION FEATURES			

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 63'-6"
FIRE PROTECTION FEATURES

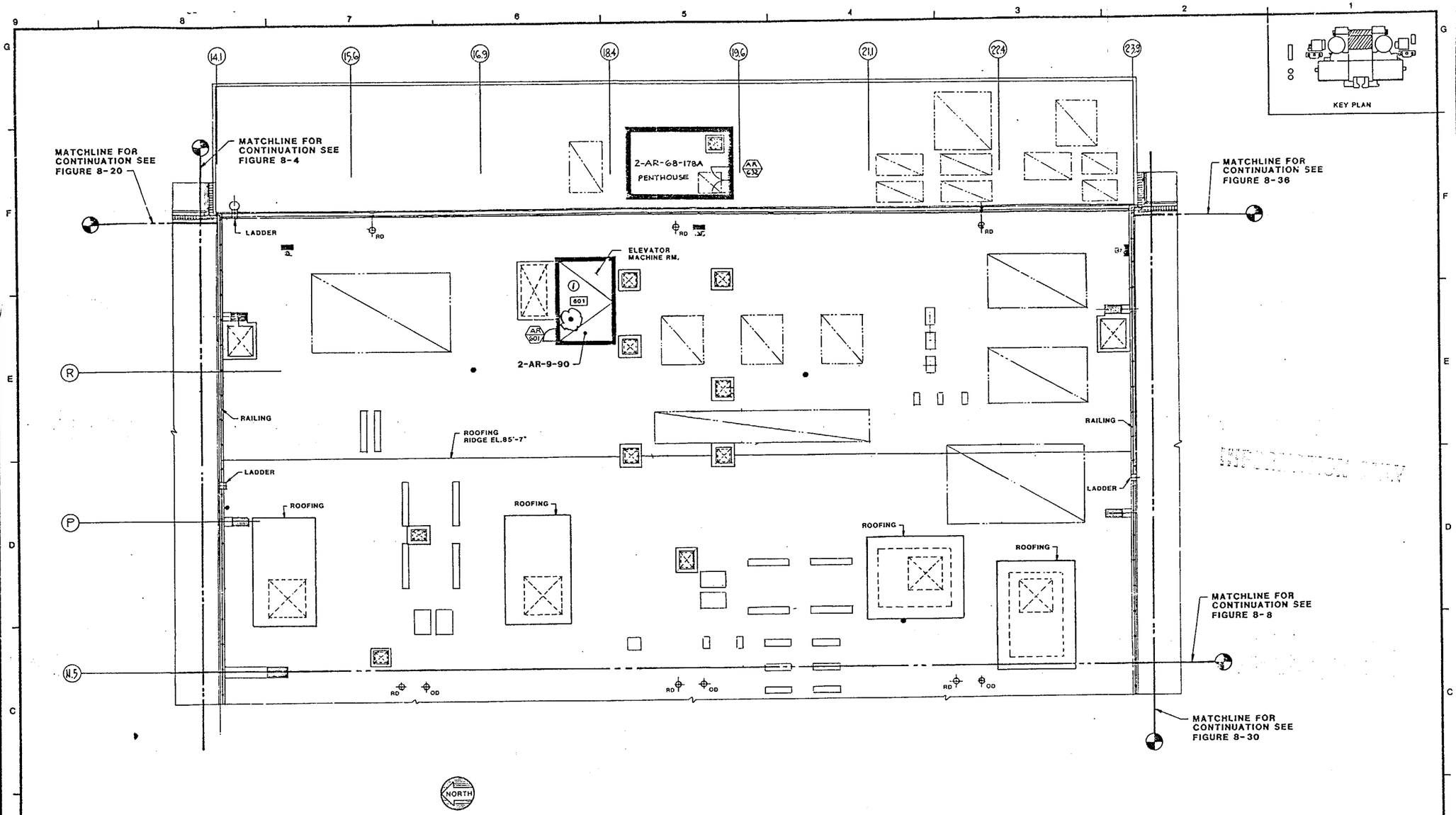
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-14
REV. 5
SHEET 2 OF 4

2 UFHA REV. 11 2/96 83064

INFORMATION ONLY



ROOF PLAN @ ELEVATION 85' – 0"

SCALE: N.T.S.

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C
- SEISMIC HOSE STATIONS
- INLET CONNECTIONS
- 10A:160B:C
- 2A:160B:C

FIRE DETECTORS

- IONIZATION
- INFRA RED
- HEAT
- PHOTOELECTRIC
- LOCAL IONIZATION
- LOCAL INFRA RED
- LOCAL HEAT

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
4	11-16-88	INCORPORATED DCN 1	EF	VM	
3	4-26-88	INCORP. CHANGE PKG. BF-095			
2	11-24-87	INCORP. CHANGE PKG. BF-009			
1	11-20-84	UPDATED FOR FHA REVISION			
0	12-20-83	FIRE PROTECTION FEATURES			

SAN ONOFRE NUCLEAR GENERATING STATION

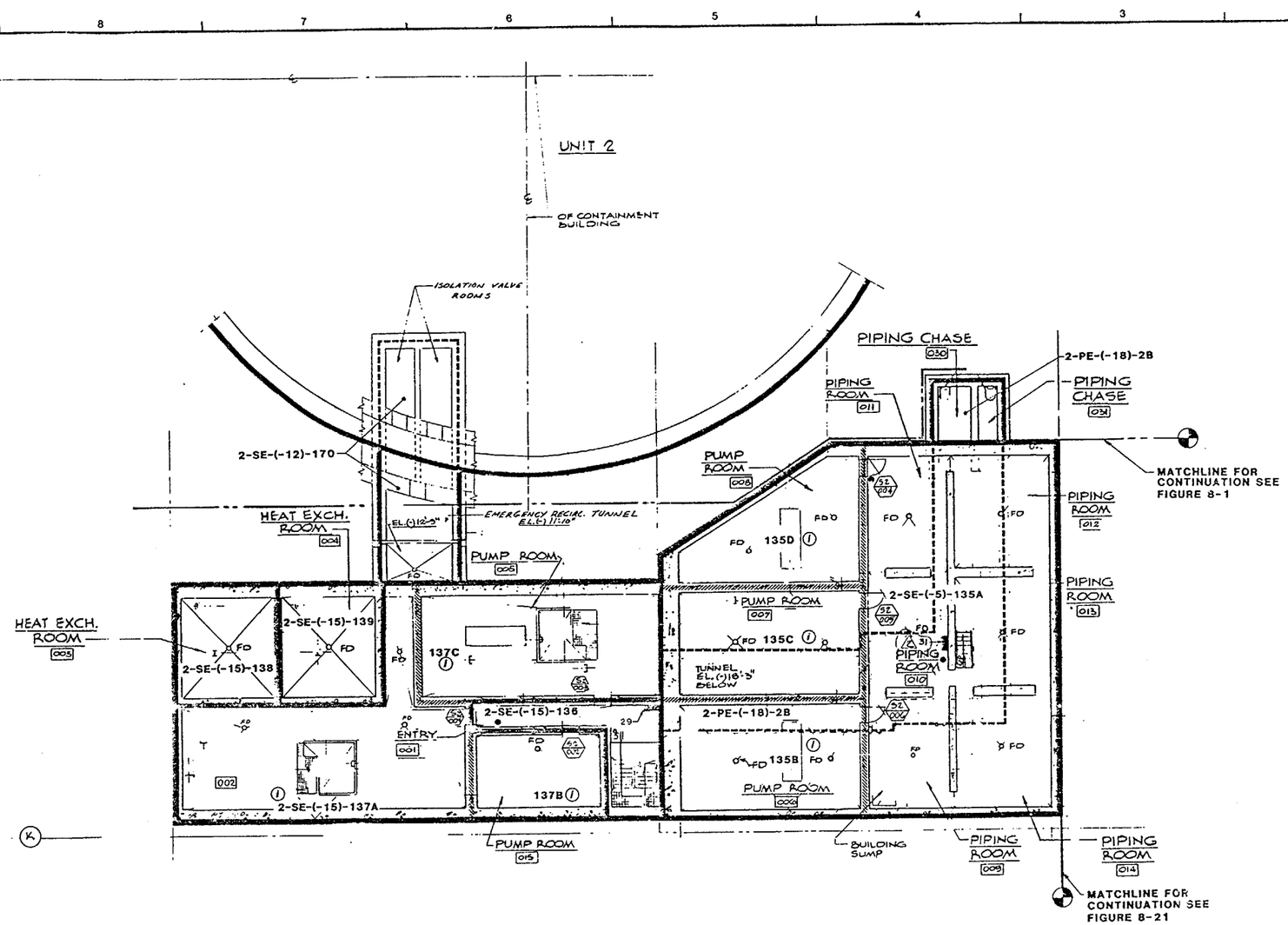
AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 85'-0"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

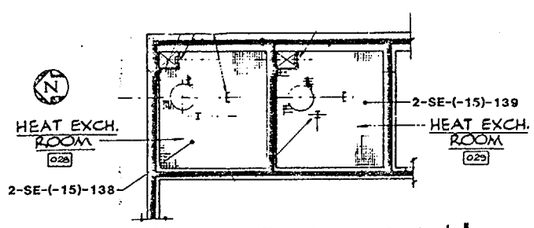
IMPELL CORPORATION

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-14A REV. 4
SHEET 2 OF 2

UFHA REV4 8/88 83065

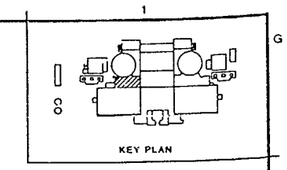


PLAN AT ELEVATION (-) 15'-6 & (-) 5'-3"



PLAN AT PLATFORM EL.(-)2'-0" ABOVE HEAT EXCH. ROOMS

SCALE: 1/8" = 1'-0"



INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C
- SEISMIC HOSE STATIONS
- INLET CONNECTIONS

FIRE DETECTORS

- (I) IONIZATION
- (Ir) INFRA RED
- (h) HEAT
- (PE) PHOTOELECTRIC
- [I] LOCAL IONIZATION
- [Ir] LOCAL INFRA RED
- [h] LOCAL HEAT

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
2	9-21-83	INCORP. CHG. PKG. SF-014	RR		
1	11-20-84	UPDATED FOR FHA REVISION			
0	12-2-83	FIRE PROTECTION FEATURES			

SAN ONOFRE NUCLEAR GENERATING STATION

SAFETY EQUIPMENT BLDG
UNIT 2 EL.-15'-6" & -5'-3"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-15
REV 2
SHEET 2 OF 3

83066

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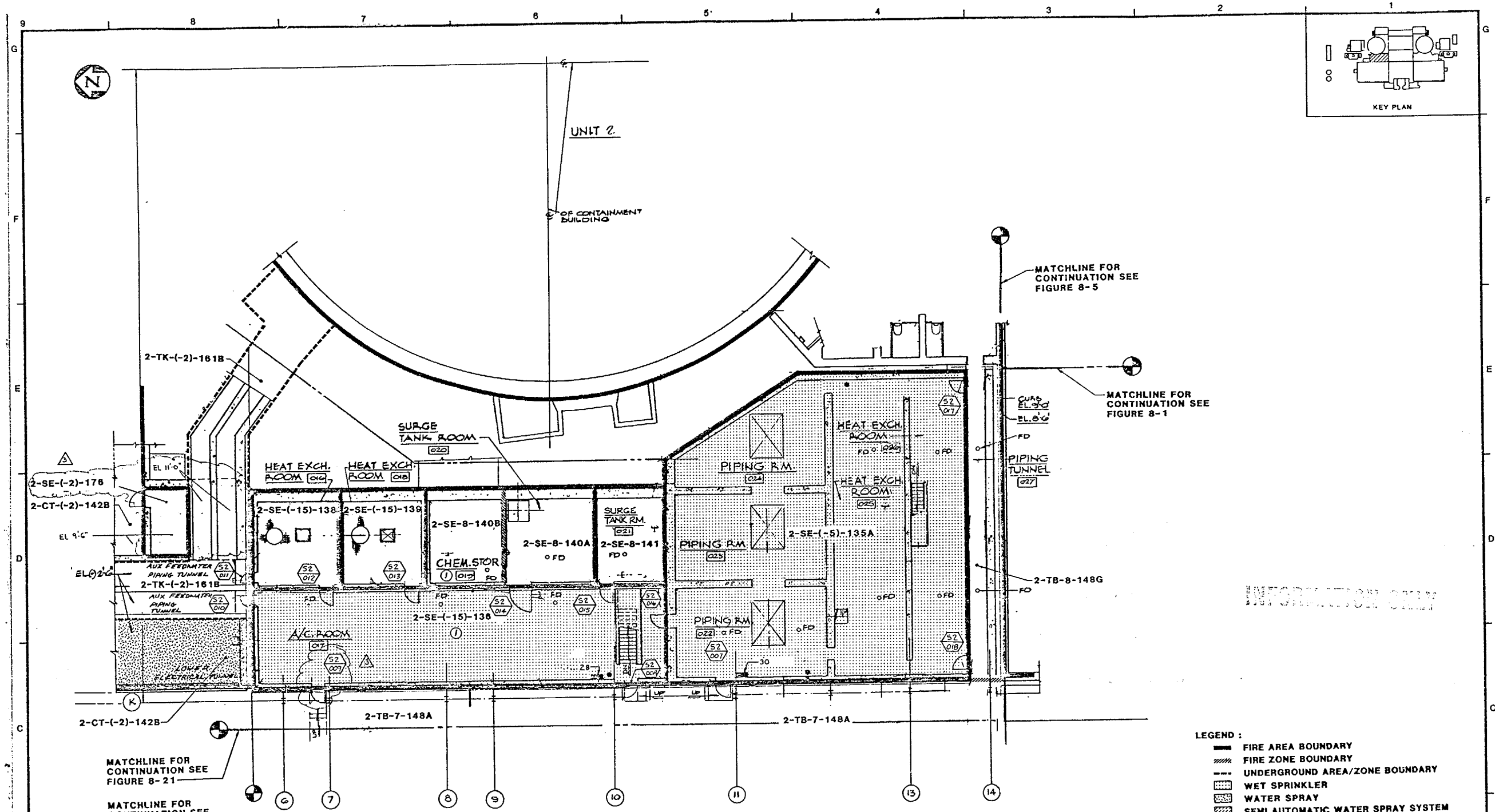

PLAN AT ELEVATION 8'-0"
SCALE : 1/8" = 1'-0"

INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C
- SEISMIC HOSE STATIONS
- INLET CONNECTIONS

FIRE DETECTORS

- (I) IONIZATION
- (Ir) INFRA RED
- (h) HEAT
- (PE) PHOTOELECTRIC
- [I] LOCAL IONIZATION
- [Ir] LOCAL INFRA RED
- [h] LOCAL HEAT

QC-III FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
3	1-29-87	INCORPORATE CHANGE PACKAGES SF-062 AND SF-064	RTC		
2	11-18-85	INCORP. CHG. PKG. SF-014	RR		
1	10-29-84	UPDATED FOR FHA REVISION			
0	12-20-83	FIRE PROTECTION FEATURES			

SAN ONOFRE NUCLEAR GENERATING STATION

SAFETY EQUIPMENT BLDG
UNIT 2 EL. 8'-0"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-16
REV. 3
SHEET 2 OF 4

UFHA R27, 6 2/89 83067

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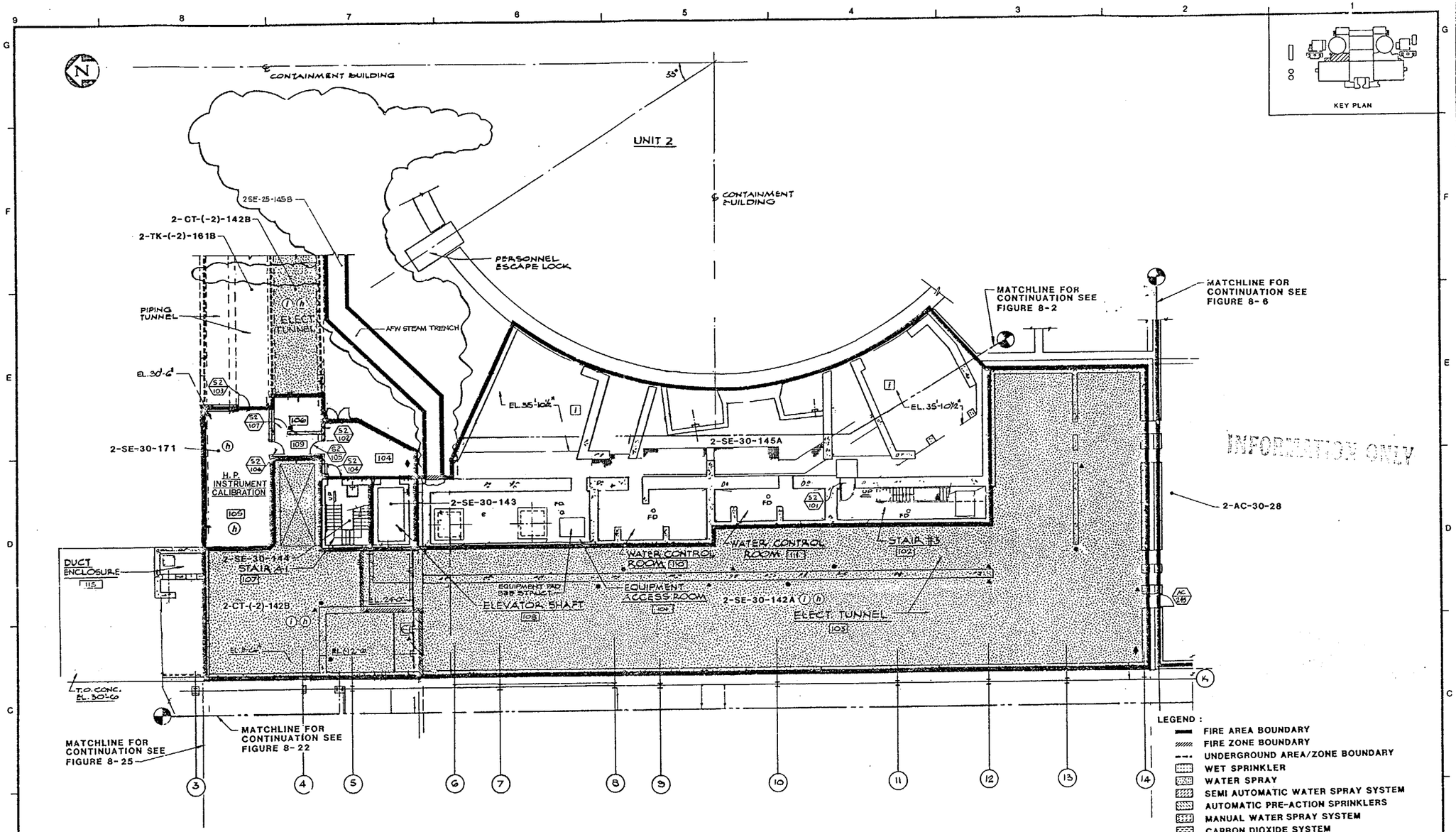


PLAN AT ELEVATION 30'-6"
SCALE: N.T.S.

LEGEND:

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C
- SEISMIC HOSE STATIONS
- INLET CONNECTIONS

FIRE DETECTORS

- IONIZATION
- INFRA RED
- HEAT
- PHOTOELECTRIC
- LOCAL IONIZATION
- LOCAL INFRA RED
- LOCAL HEAT

QC-IIIFPS

REV.	DATE	DESCRIPTION	DWN.	CHK.
5	10-26-00	INCORPORATED DCN 2	EP	
4	12-16-92	INCORP. DCN 1, AS BUILT.	LGS	
3	2-7-90	AS BUILT BY FLOORING CHANGE SF 087, SF 121, PDCD QC		
2	4-29-88	UPDATED FOR FHA REVISION		
1	11-20-84	UPDATED FOR FHA REVISION.		
0	12-2-83	FIRE PROTECTION FEATURES		

SAN ONOFRE NUCLEAR GENERATING STATION

SAFETY EQUIPMENT BLDG
UNIT 2 EL. 30'-6"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-17
REV. 5
SHEET 2 OF 4

UFHA REV. 9 2/93

83068

LEGEND :

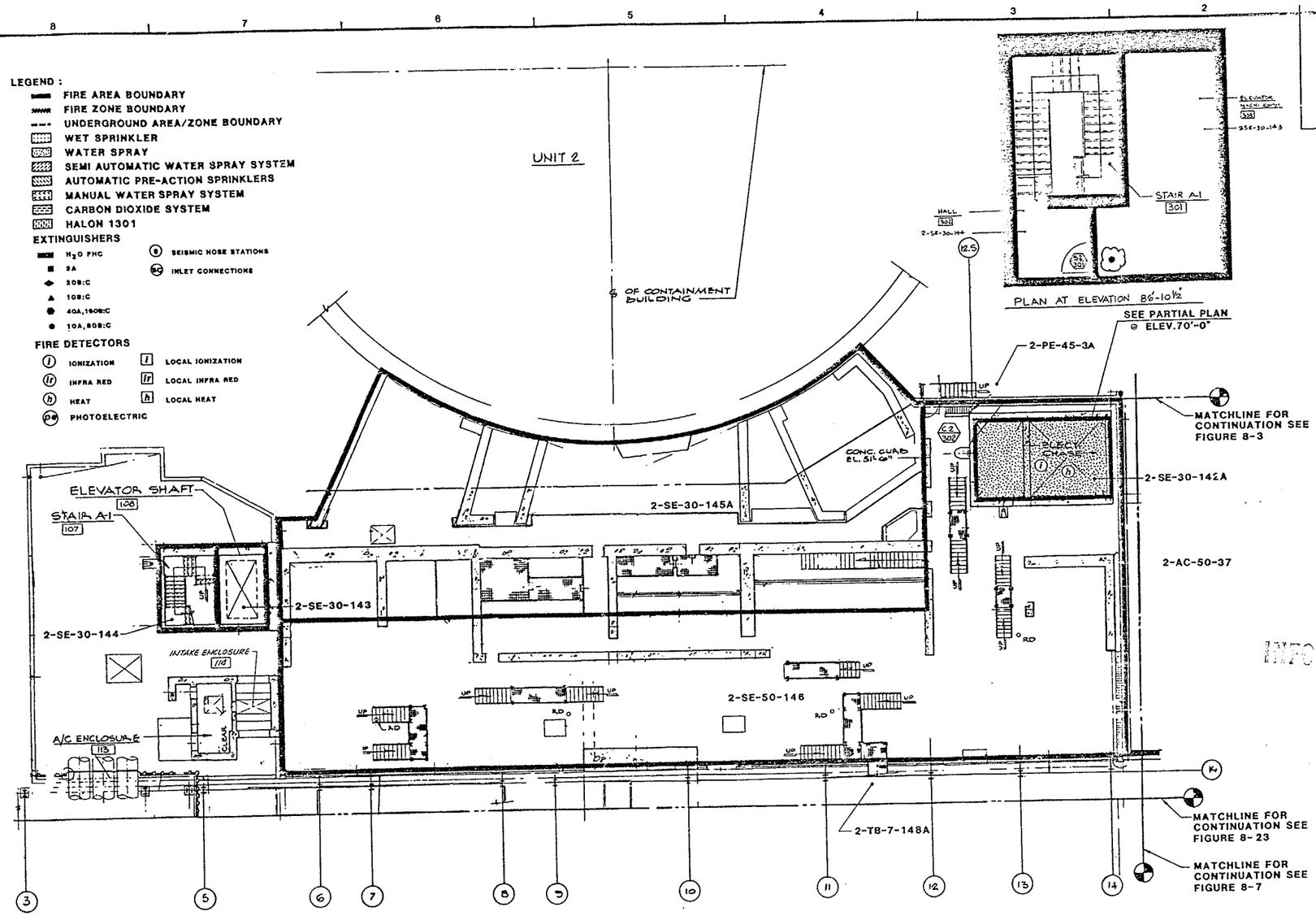
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

EXTINGUISHERS

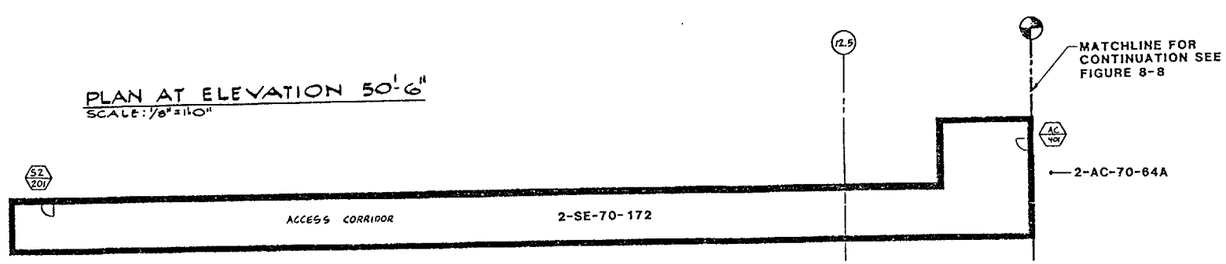
- H_2O PHC
- 3A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C
- SEISMIC HOSE STATIONS
- INLET CONNECTIONS

FIRE DETECTORS

- IONIZATION
- INFRA RED
- HEAT
- PHOTOELECTRIC
- LOCAL IONIZATION
- LOCAL INFRA RED
- LOCAL HEAT

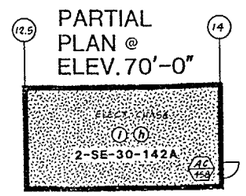


KEY PLAN



PARTIAL PLAN @ ELEVATION 70' – 0"

SCALE: 1/8" = 1'-0"



PARTIAL PLAN @ ELEV. 70'-0"

QC-IIIFPS

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.
5	11-17-00	EXCORPORATED PCN 2		SF	VH
4	1-10-78	INCORP DCN 1		LJB	IGG
3	2-2-76	AS BUILT BY FLUOR; INC. ENG. PKG. + SE-0030-SA	DOT	S.S.	
2	5-23-08	UPDATED FOR FHA REVISION		Mike	FS
1	11-20-04	UPDATED FOR FHA REVISION.			
0		FIRE PROTECTION FEATURES			

SAN ONOFRE NUCLEAR GENERATING STATION

SAFETY EQUIPMENT BLDG
UNIT 2 EL. 50'-6", 70'-0" & 86'-10½"
FIRE PROTECTION FEATURES

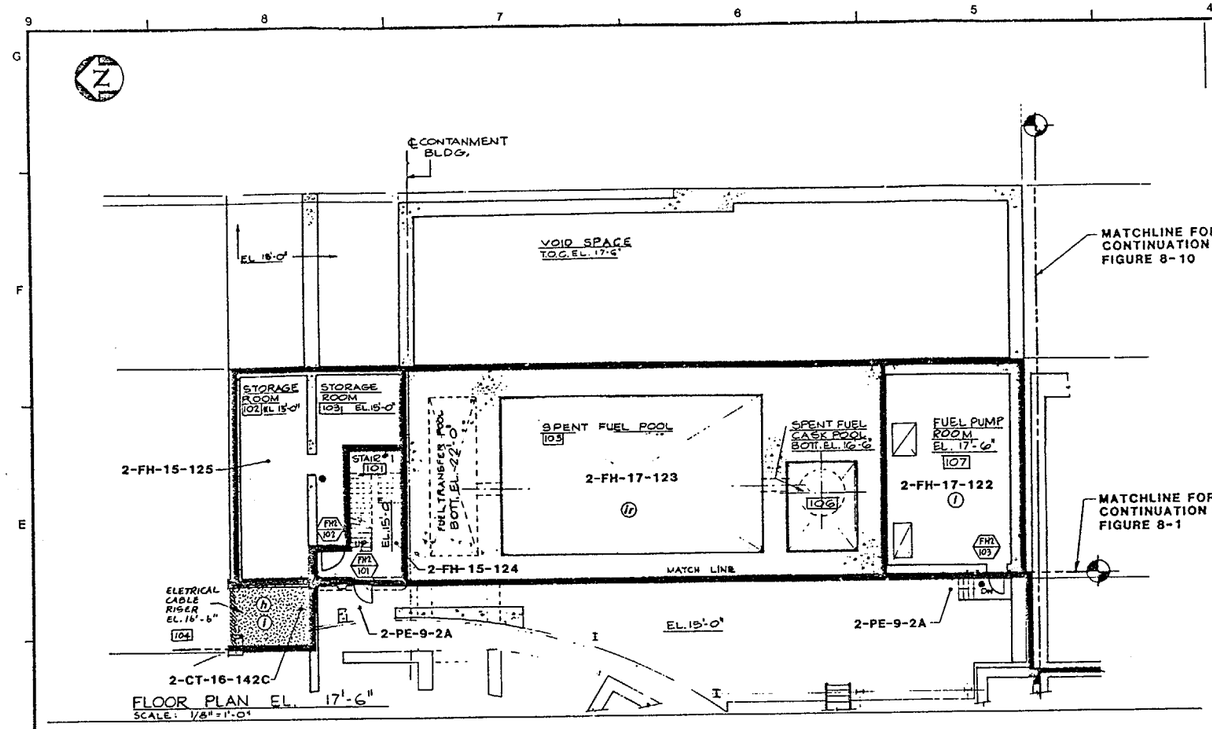
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

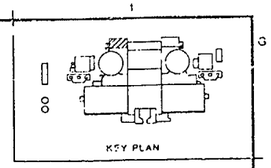
SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-18
REV. 5
SHEET 2 OF 4

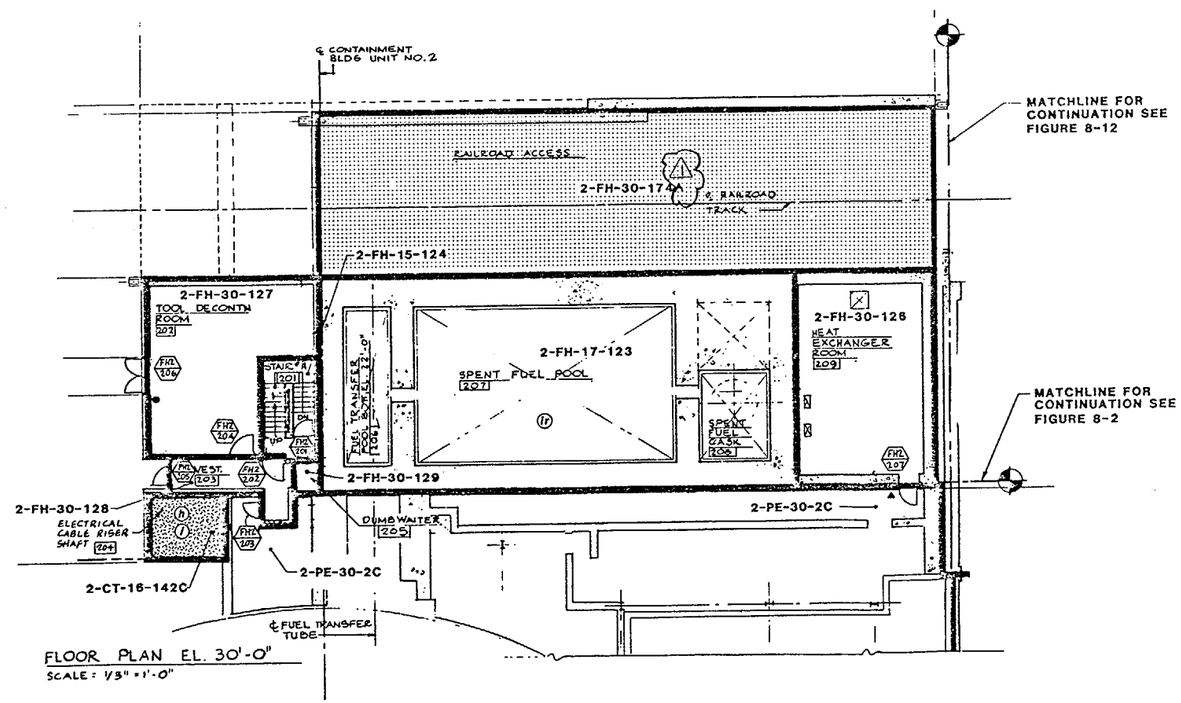
2 UFHA REV 6 2/90 83069

INFORMATION ONLY



FLOOR PLAN EL. 17'-6"
SCALE: 1/8" = 1'-0"





FLOOR PLAN EL. 30'-0"
SCALE: 1/8" = 1'-0"

INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C
- SEISMIC HOSE STATIONS
- INLET CONNECTIONS

FIRE DETECTORS

- IONIZATION
- INFRA RED
- HEAT
- PHOTOELECTRIC
- LOCAL IONIZATION
- LOCAL INFRA RED
- LOCAL HEAT

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
1	4-26-88	INCORP. CHANGE PKG. 87-095			
0	12-28-83	FIRE PROTECTION FEATURES			

SAN ONOFRE NUCLEAR GENERATING STATION

FUEL HANDLING BLDG
UNIT 2 EL. 17'-6" & 30'-0"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

UFHA REV. 4 8/88 83070

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-19 REV. 1
SHEET 2 OF 3

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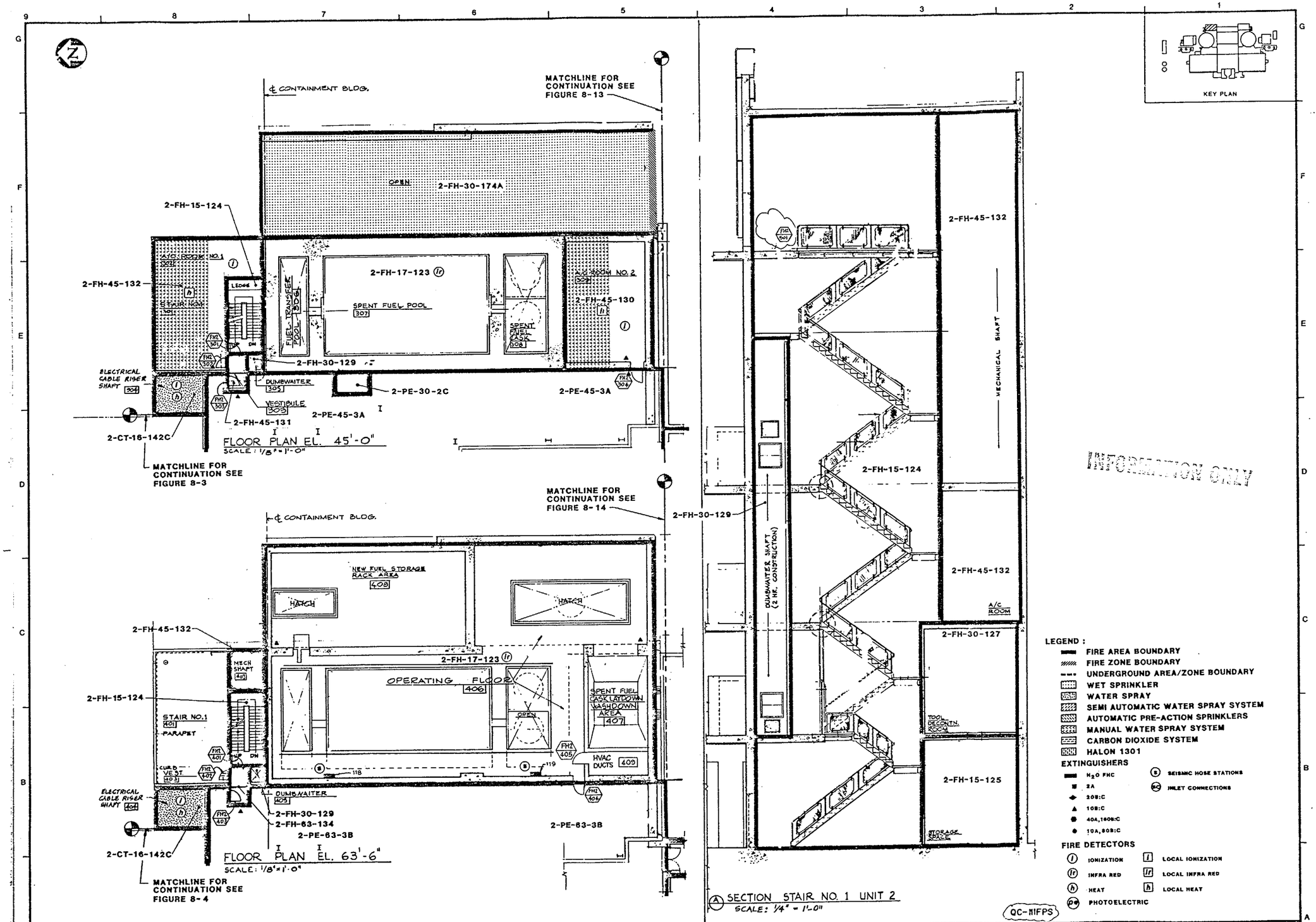
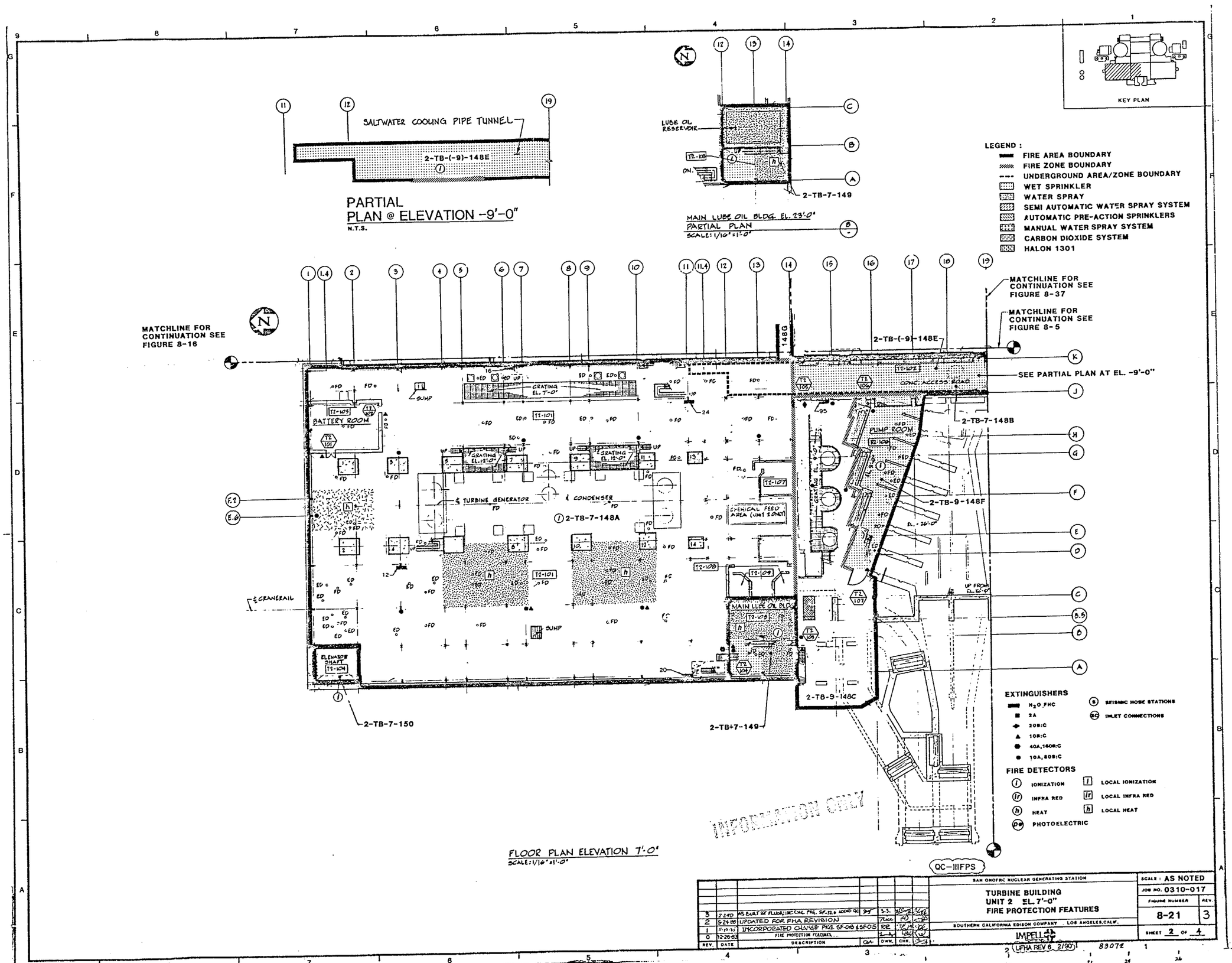
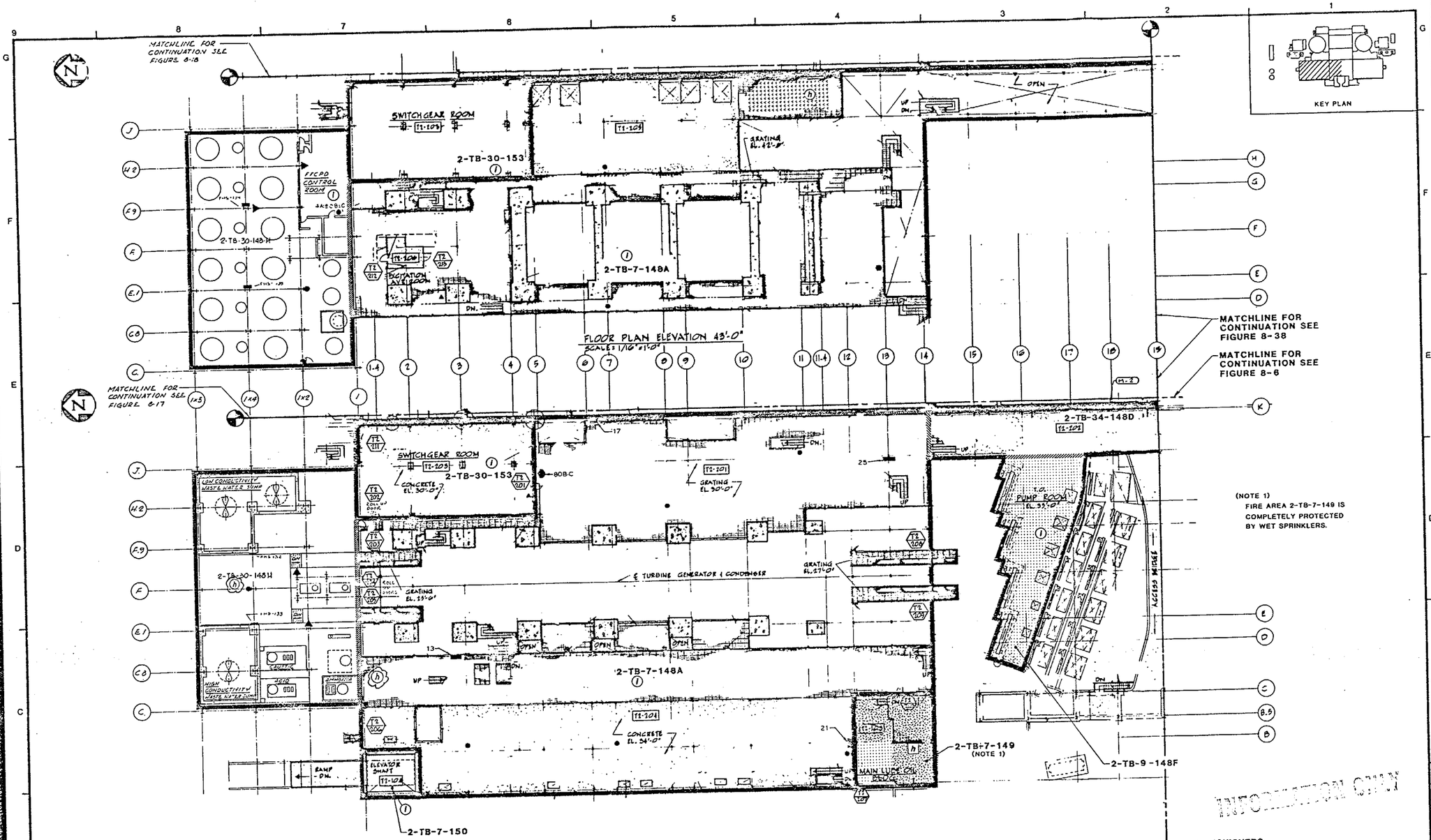

KEY PLAN
℄ CONTAINMENT BLDG.
MATCHLINE FOR CONTINUATION SEE FIGURE 8-13
OPEN
2-FH-30-174A
2-FH-15-124
2-FH-45-132
A/C ROOM NO. 1
STAIR NO. 1
LEDGE
FUEL TRANSFER POOL
2-FH-17-123
SPENT FUEL POOL
307
SPENT FUEL CASK
308
A/C ROOM NO. 2
2-FH-45-130
2-FH-30-129
ELECTRICAL CABLE RISER SHAFT
304
DUMBWAITER
305
VESTIBULE
303
2-PE-30-2C
2-PE-45-3A
2-FH-45-131
2-CT-16-142C
FLOOR PLAN EL. 45'-0"
SCALE: 1/8" = 1'-0"
MATCHLINE FOR CONTINUATION SEE FIGURE 8-3
MATCHLINE FOR CONTINUATION SEE FIGURE 8-14
2-FH-30-129
℄ CONTAINMENT BLDG.
NEW FUEL STORAGE RACK AREA
408
HATCH
2-FH-45-132
MECH SHAFT
402
2-FH-17-123
OPERATING FLOOR
406
2-FH-15-124
STAIR NO. 1
401
PARAPET
CURB
VEST
403
SPENT FUEL CASK LAYDOWN WASHDOWN AREA
407
OPEN
HVAC DUCTS
409
ELECTRICAL CABLE RISER SHAFT
404
DUMBWAITER
405
2-FH-30-129
2-FH-63-134
2-PE-63-3B
2-CT-16-142C
FLOOR PLAN EL. 63'-6"
SCALE: 1/8" = 1'-0"
MATCHLINE FOR CONTINUATION SEE FIGURE 8-4
DUMBWAITER SHAFT (2 HR. CONSTRUCTION)
2-FH-45-132
MECHANICAL SHAFT
2-FH-15-124
2-FH-45-132
A/C ROOM
2-FH-30-127
TOOL DECONTN. ROOM
2-FH-15-125
STORAGE SCALE
SECTION STAIR NO. 1 UNIT 2
SCALE: 1/4" = 1'-0"
LEGEND:
FIRE AREA BOUNDARY
FIRE ZONE BOUNDARY
UNDERGROUND AREA/ZONE BOUNDARY
WET SPRINKLER
WATER SPRAY
SEMI AUTOMATIC WATER SPRAY SYSTEM
AUTOMATIC PRE-ACTION SPRINKLERS
MANUAL WATER SPRAY SYSTEM
CARBON DIOXIDE SYSTEM
HALON 1301
EXTINGUISHERS
H2O FHC
2A
20B:C
10B:C
40A,160B:C
10A,80B:C
SEISMIC HOSE STATIONS
INLET CONNECTIONS
FIRE DETECTORS
IONIZATION
INFRA RED
HEAT
PHOTOELECTRIC
LOCAL IONIZATION
LOCAL INFRA RED
LOCAL HEAT
QC-MFPS
INFORMATION ONLY
SAN ONOFRE NUCLEAR GENERATING STATION
FUEL HANDLING BLDG
UNIT 2 EL. 45'-0" & 63'-6"
FIRE PROTECTION FEATURES
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
IMPELL
SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-20
REV. 3
SHEET 2 OF 3
REV. DATE DESCRIPTION DWN. CHK. P.E.
3 1-21-89 AS BUILT BY ADDED QC FLUOR, INC. CHG PKG. SF-098
2 5-2-88 INCORP. CHANGE PKG. BF-095
1 INCORP. CHANGE PKG. SF-019
0 12-26-83 FIRE PROTECTION FEATURES
USHA REV 6 2/90
83071


SALTWATER COOLING PIPE TUNNEL
2-TB-(-9)-148E
PARTIAL PLAN @ ELEVATION -9'-0"
N.T.S.
LUBE OIL RESERVOIR
2-TB-7-149
MAIN LUBE OIL BLDG. EL. 23'-0"
PARTIAL PLAN
SCALE: 1/16" = 1'-0"
KEY PLAN
LEGEND :
FIRE AREA BOUNDARY
FIRE ZONE BOUNDARY
UNDERGROUND AREA/ZONE BOUNDARY
WET SPRINKLER
WATER SPRAY
SEMI AUTOMATIC WATER SPRAY SYSTEM
AUTOMATIC PRE-ACTION SPRINKLERS
MANUAL WATER SPRAY SYSTEM
CARBON DIOXIDE SYSTEM
HALON 1301
MATCHLINE FOR CONTINUATION SEE FIGURE 8-16
MATCHLINE FOR CONTINUATION SEE FIGURE 8-37
MATCHLINE FOR CONTINUATION SEE FIGURE 8-5
SEE PARTIAL PLAN AT EL. -9'-0"
2-TB-(-9)-148E
2-TB-7-148B
2-TB-9-148F
2-TB-7-148A
2-TB-9-148C
2-TB-7-150
2-TB+7-149
BATTERY ROOM
PUMP ROOM
TURBINE GENERATOR
CONDENSER
CHEMICAL FEED AREA (UNIT 2 ONLY)
MAIN LUBE OIL PUMP
ELEVATOR SHAFT
CONC. ACCESS ROAD
GRATING EL. 7'-0"
GRATING EL. 12'-0"
SUMP
℄ CRANERAIL
EXTINGUISHERS
H2O, FHC
2A
20B:C
10B:C
40A,160B:C
10A,80B:C
SEISMIC HOSE STATIONS
INLET CONNECTIONS
FIRE DETECTORS
IONIZATION
INFRA RED
HEAT
PHOTOELECTRIC
LOCAL IONIZATION
LOCAL INFRA RED
LOCAL HEAT
INFORMATION ONLY
FLOOR PLAN ELEVATION 7'-0"
SCALE: 1/16" = 1'-0"
QC-IIIFPS
SAN ONOFRE NUCLEAR GENERATING STATION
TURBINE BUILDING
UNIT 2 EL. 7'-0"
FIRE PROTECTION FEATURES
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
IMPELL
SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-21
REV. 3
SHEET 2 OF 4
REV. DATE DESCRIPTION DWN. CHK.
3 2-2-90 AS BUILT RE FLOOR; INC CHG. PKG. SF-12 & ADDED QC
2 5-24-88 UPDATED FOR FHA REVISION
1 11-19-87 INCORPORATED CHANGE PKG. SF-010 & SF015
0 12-26-83 FIRE PROTECTION FEATURES
(UFHA REV 6 2/90)
8307E



FLOOR PLAN ELEVATION 30'-0" & 34'-0"
SCALE: 1/16" = 1'-0"

QC III - FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
4	10-24-00	INCORPORATED DCN 2	EF		
3	1-10-96	INCORP. DCN 1	JCM		
2	1-14-91	INCORPORATE UHFA CHG PKG SF-181 AS BUILT	MC		
1	12-17-86	INCORP CHANGE PACKAGE (BA-085) AS BUILT OV BNPC	JD		
0	12-26-83	FIRE PROTECTION FEATURES			

SAN ONOFRE NUCLEAR GENERATING STATION

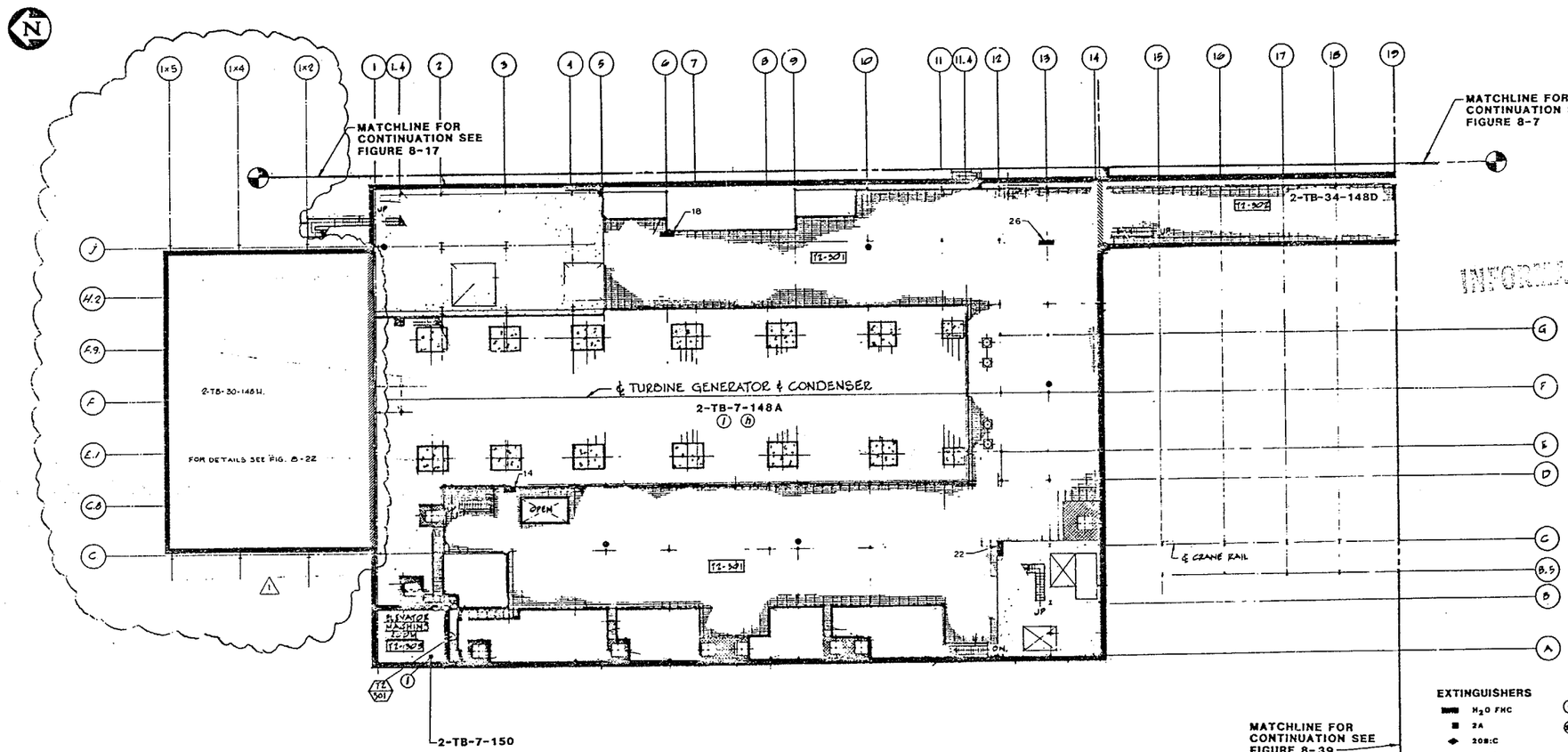
TURBINE BUILDING
UNIT 2 EL. 34'-0" & 43'-0"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-22
REV. 4
SHEET 2 OF 3

2 UFHA REV. 11 2/88 83073-2 1



KEY PLAN

FLOOR PLAN ELEVATION 56'-0"
SCALE: 1/16" = 1'-0"

EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C
- SEISMIC HOSE STATIONS
- INLET CONNECTIONS

FIRE DETECTORS

- IONIZATION
- INFRA RED
- HEAT
- PHOTOELECTRIC
- LOCAL IONIZATION
- LOCAL INFRA RED
- LOCAL HEAT

LEGEND:

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

REV.	DATE	DESCRIPTION	DWN.	CHK.	PE.
1	12-17-86	INCORP CHANGE PACKAGE (CP-085) AS BUILT BY BNFE	JO		
0	12-2-83	FIRE PROTECTION FEATURES			

SAN ONOFRE NUCLEAR GENERATING STATION

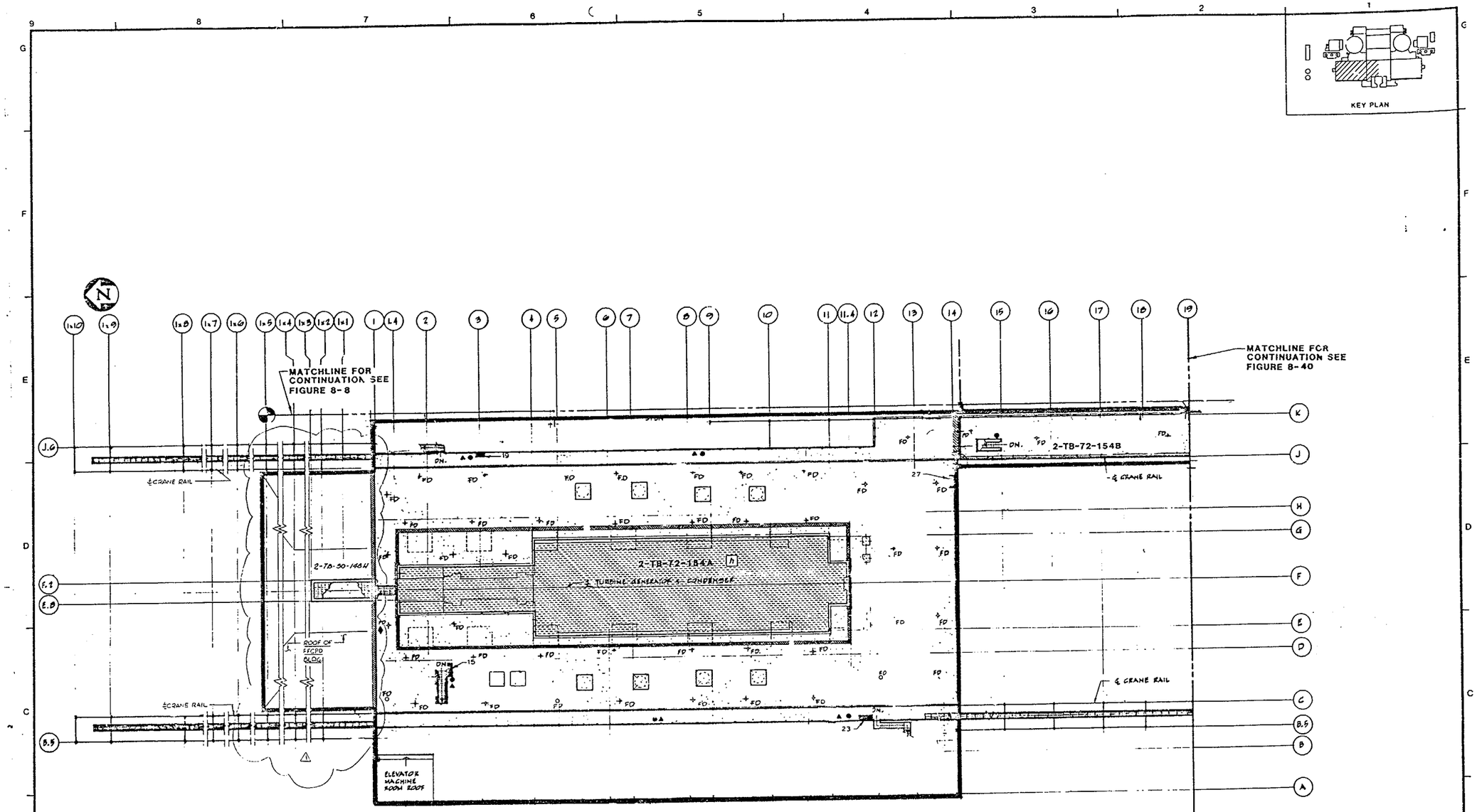
TURBINE BUILDING
UNIT 2 EL. 56'-0"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-23
REV. 1.
SHEET 2 OF 3

83074



LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C
- SEISMIC HOSE STATIONS
- INLET CONNECTIONS

FIRE DETECTORS

- (I) IONIZATION
- (Ir) INFRA RED
- (h) HEAT
- (PE) PHOTOELECTRIC
- [I] LOCAL IONIZATION
- [Ir] LOCAL INFRA RED
- [h] LOCAL HEAT

INFORMATION ONLY

FLOOR PLAN ELEVATION 72'-6"
SCALE=1/16"=1'-0"

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
1	12-13-84	CORR. CHANGE PACKAGE (SP-C85)-85 BUILT TO 5/4/PC	JMcB		
0	12-20-83	FIRE PROTECTION FEATURES			

SAN ONOFRE NUCLEAR GENERATING STATION

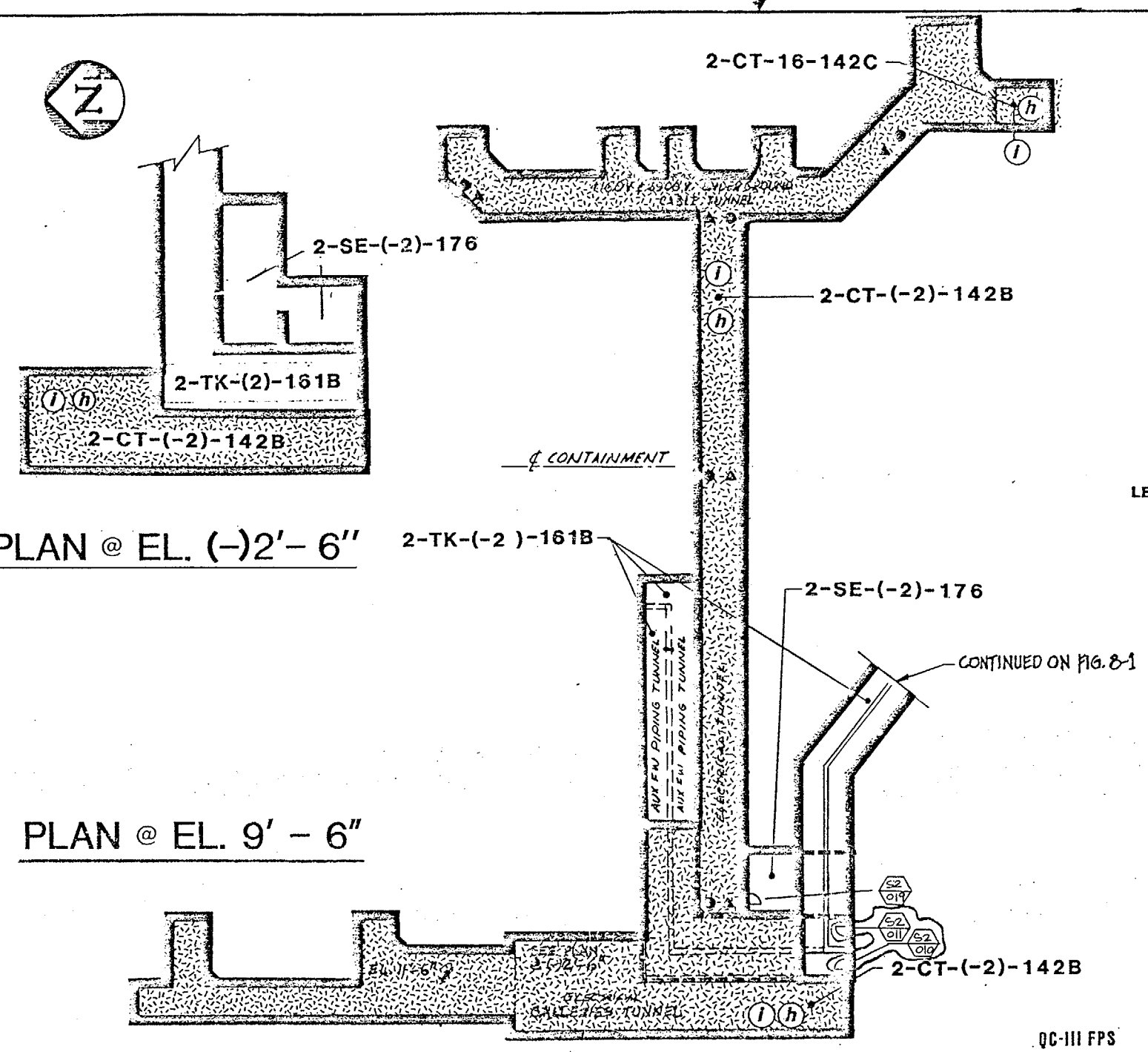
TURBINE BUILDING
UNIT 2 EL. 72'-6"
FIRE PROTECTION FEATURES

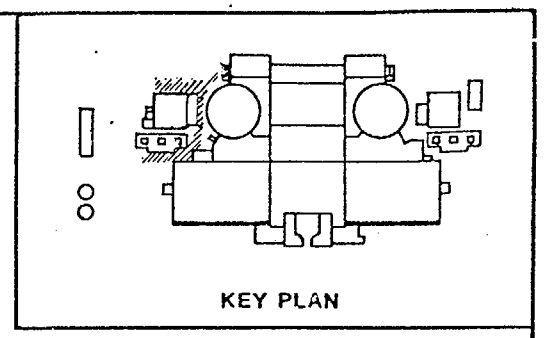
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-24
REV. 1
SHEET 2 OF 3

83075





INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C
- (S) SEISMIC HOSE STATIONS
- (SC) INLET CONNECTIONS

FIRE DETECTORS

- (I) IONIZATION
- (Ir) INFRA RED
- (h) HEAT
- (pe) PHOTOELECTRIC
- (UV) ULTRA-VIOLET
- [I] LOCAL IONIZATION
- [Ir] LOCAL INFRA RED
- [h] LOCAL HEAT

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.	P.E.
3	1-22-90	AS BUILT BY PLUCKING CHG. PKG. SF-101		S.S.		
2	1-2-89	INCORPORATE CHANGE PACKAGES SF-062 AND SF-064				
1	5-5-88	UPDATED FOR FHA REVISION				
0	12-26-83	FIRE PROTECTION FEATURES				

SAN ONOFRE NUCLEAR GENERATING STATION

CABLE TUNNEL AREA
UNIT 2 EL.9'-6"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE : N.T.S.

JOB NO. 0310-017

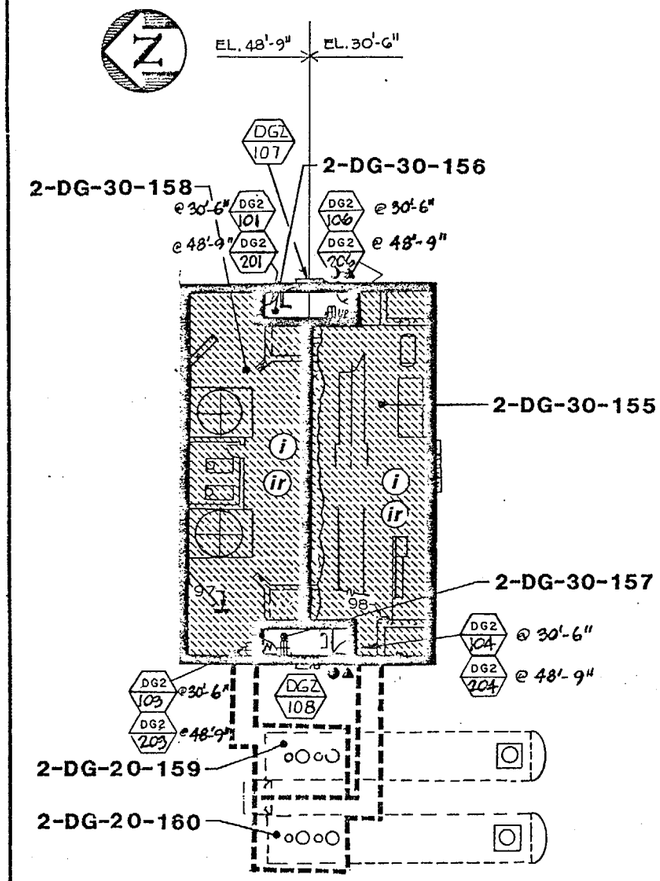
FIGURE NUMBER 8-25 REV. 3

SHEET 2 OF 3

UFHA REV 6 2/90

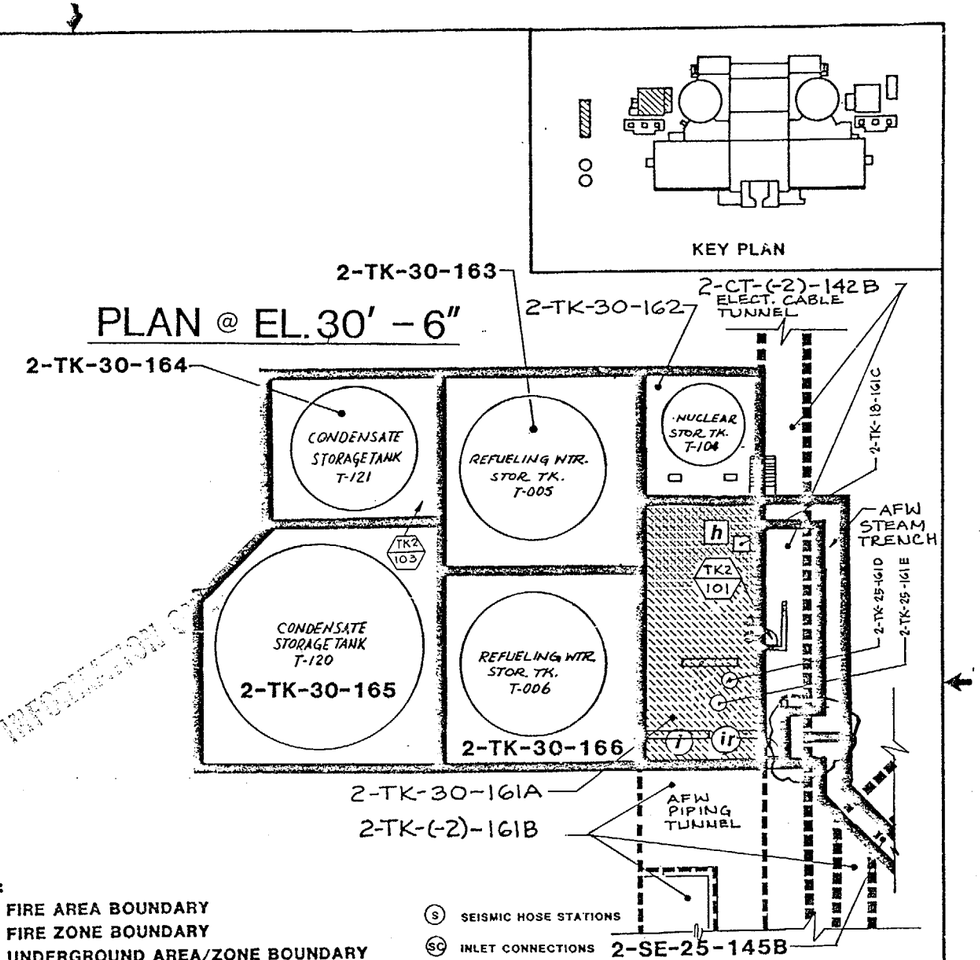
83076

17X



PLAN @ ELEVATION 30' - 6"

AND ELEVATION 48'-9"



INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE BOUNDARY
- WET SPRINKLER
- WATER SPRAY
- SEMI AUTOMATIC WATER SPRAY SYSTEM
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

- (S) SEISMIC HOSE STATIONS
- (SC) INLET CONNECTIONS

EXTINGUISHERS:

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A,160B:C
- 10A,80B:C

FIRE DETECTORS:

- (i) IONIZATION
- (ir) INFRA RED
- (h) HEAT
- (pe) PHOTOELECTRIC
- [i] LOCAL IONIZATION
- [ir] LOCAL INFRA RED
- [h] LOCAL HEAT

QC-III FPS

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.	P.E.
6	10-18-00	INCORP. DCN 4		EF	DYD	
5	1-10-98	INCORP. DCN 283		EF	VM	
4	1-10-96	INCORP. DCN 1.		JCL		
3	1-22-90	AS BUILT BY FLUOR, INC. CHG PKG SF-086, ADDED QC		P.d.J		
2	5-10-88	UPDATED FOR FHA REVISION		Nice		
1	11-(illegible)	INCORP CHG PKG SF-007		RR		
0	12-26-83	FIRE PROTECTION FEATURES				

SAN ONOFRE NUCLEAR GENERATING STATION

DIESEL GEN. BLDG. & TANK BLDG.
UNIT 2 EL.30'-6"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE : N.T.S.

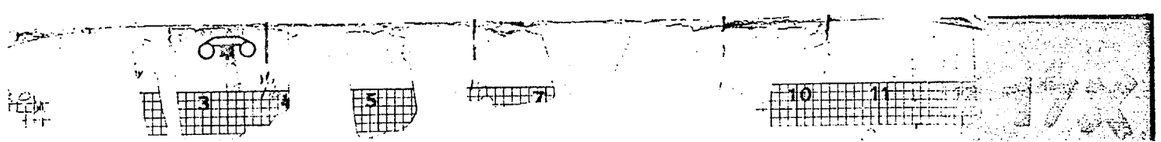
JOB NO. 0310-017

FIGURE NUMBER 8-26 REV. 6

SHEET 2 OF 4

UFHA REV. 11 2/96

83077



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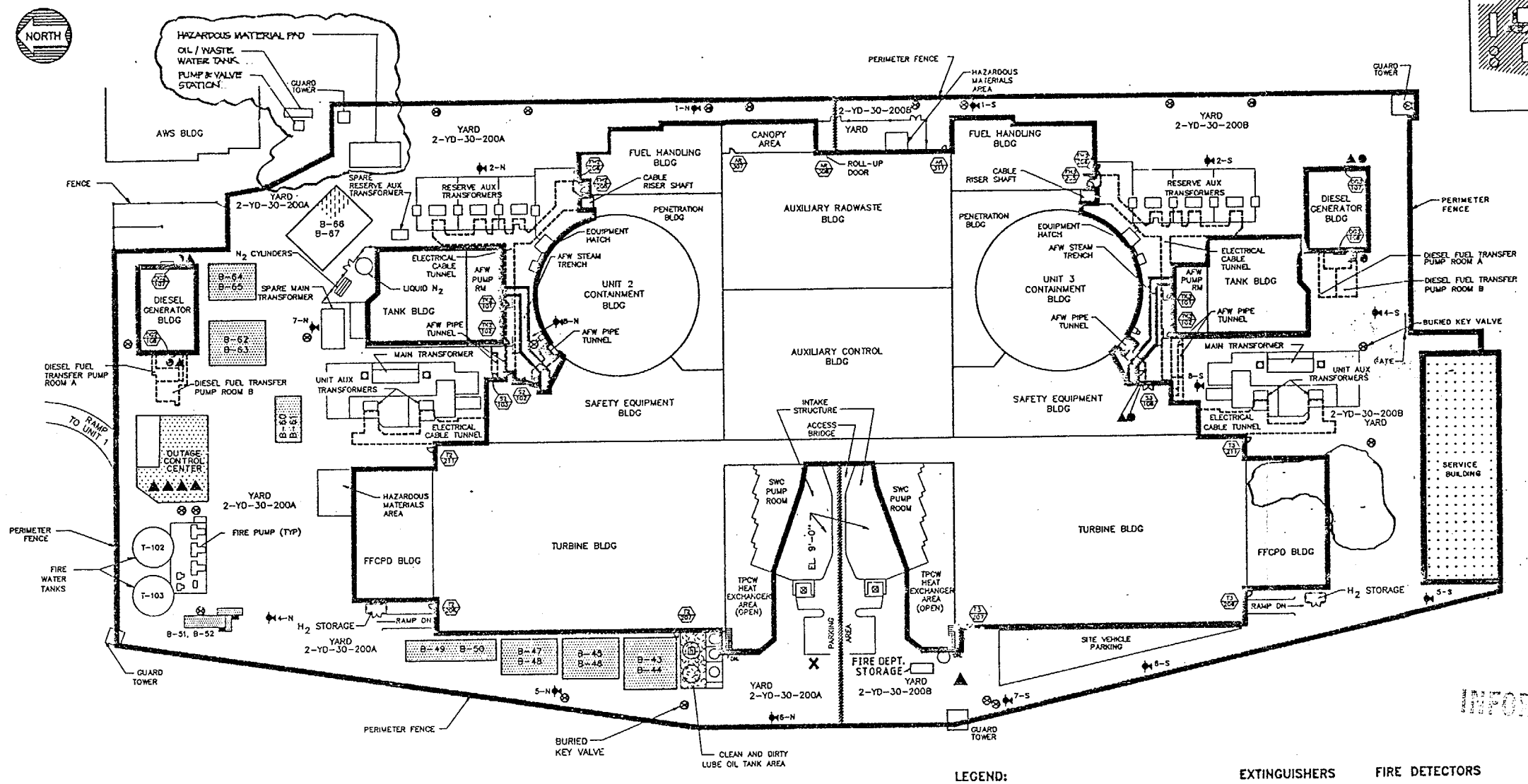
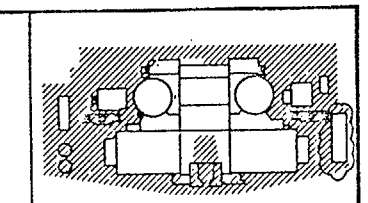
BEST AVAILABLE COPY





PLAN @ ELEVATION 30'-0"

SCALE: N.T.S.

LEGEND:

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- WET SPRINKLER
- WATER SPRAY
- SEMI-AUTOMATIC WATER SPRAY
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A:160B:C
- 10A:80B:C
- X 160B:C

FIRE DETECTORS

- IONIZATION
- INFRA RED
- HEAT
- PHOTOELECTRIC
- ULTRA-VIOLET
- LOCAL IONIZATION
- LOCAL INFRA RED
- LOCAL HEAT

- HYDRANT
- SEISMIC HOSE STATIONS
- INLET CONNECTIONS
- POST INDICATOR VALVE

QC-III FPS

REV.	DATE	DESCRIPTION	DRAWN	CHK.	P.E.
5	1-10-98	INCORP. DCN'S 6 & 7	EF	IGG	
4	1-5-96	INCORP. DCN'S 4 & 5.	JCL	MK	
3	12-16-92	INCORP. DCN 3, AS BUILT.	LGG	LLE	GCL
2	1-6-92	INCORP. DCN 1 (DCP 3/9-6716.00AA) & DCN 2 (DCP 2/9-6696.9580)	PCL	LLE	
1	1-22-90	AS BUILT BY FLUOR INC. CHG. PKG SF-086, SF-107, SF-112, SF-122	P.A.J.		
0	7-07-88	FIRE PROTECTION FEATURES			

SAN ONOFRE NUCLEAR GENERATING STATION

YARD
UNITS 2 and 3 EL. 30'-0"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

SCALE: AS NOTED
JOB NO. 0310-189
FIGURE NUMBER 8-26A REV. 5
SHEET 2 OF 3

UFHA REV. 11 2/96 83317

INFORMATION ONLY

24X
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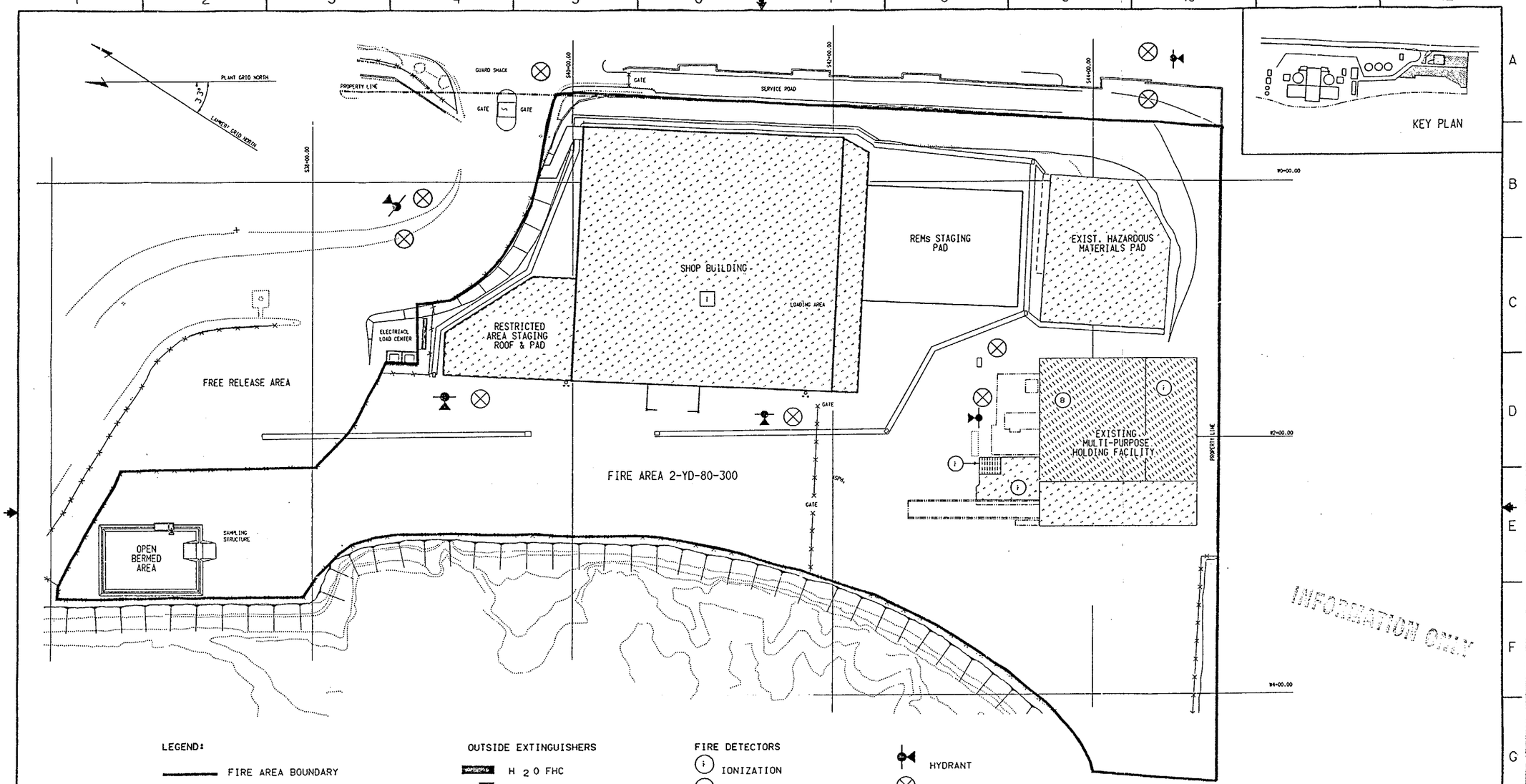

LEGEND:

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- WET SPRINKLER
- WATER SPRAY
- SEMI-AUTOMATIC WATER SPRAY
- AUTOMATIC PRE-ACTION SPRINKLERS
- MANUAL WATER SPRAY SYSTEM
- CARBON DIOXIDE SYSTEM
- HALON 1301

OUTSIDE EXTINGUISHERS

- H_2O FHC
- 2A
- 20B:C
- 10B:C
- 40A:160B:C
- 10A:80B:C
- 180B:C

FIRE DETECTORS

- (i) IONIZATION
- (ir) INFRA RED
- (h) HEAT
- (pe) PHOTOELECTRIC
- (uv) ULTRA-VIOLET
- [i] LOCAL IONIZATION
- [ir] LOCAL INFRA RED
- [h] LOCAL HEAT
- (B) LINEAR BEAM

HYDRANT

POST INDICATOR VALVE OR KEY VALVE

* DETECTORS ARE LOCATED IN ELECTRICAL ROOMS ONLY.

NOTE: FOR UNDERGROUND WATER LINES SEE DWG 27001.

COMMON FACILITIES Q.C. IV

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
0		FOR CONSTRUCTION			

SAN ONOFRE NUCLEAR GENERATING STATION

SOUTH YARD FACILITY
PLAN @ EL. 103'-0"
FIRE PROTECTION FEATURES

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

SCALE: N.T.S

JOB NO.

FIGURE NUMBER 8-26B REV. 0

SHEET 2 OF 2

DWG. LIST No. ____ SH. ____
* REVISE ON CADD SYSTEM ONLY *

SHARON HUCKABY
G:/CIVIL/7022/83320.DGN

83320

26X
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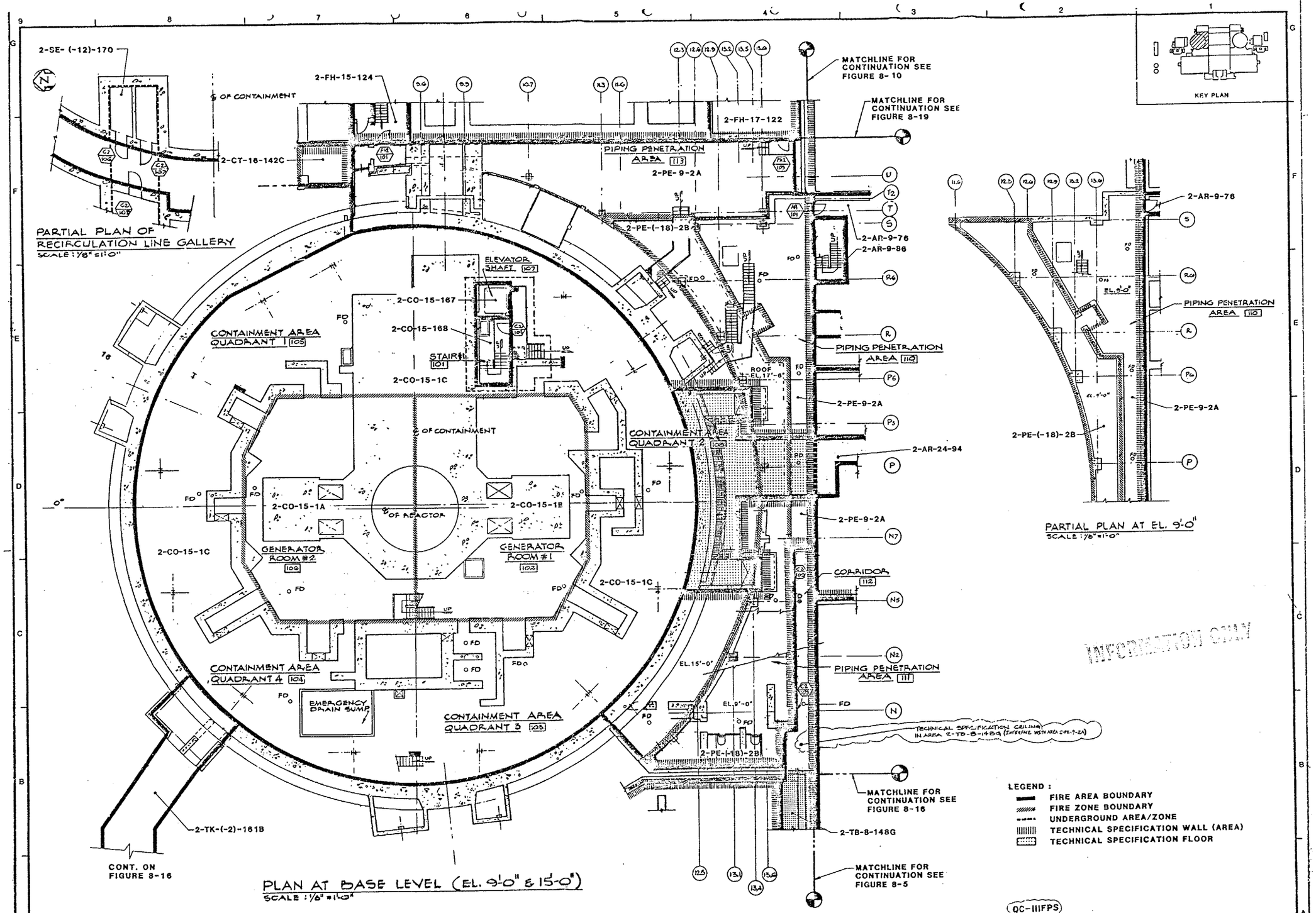
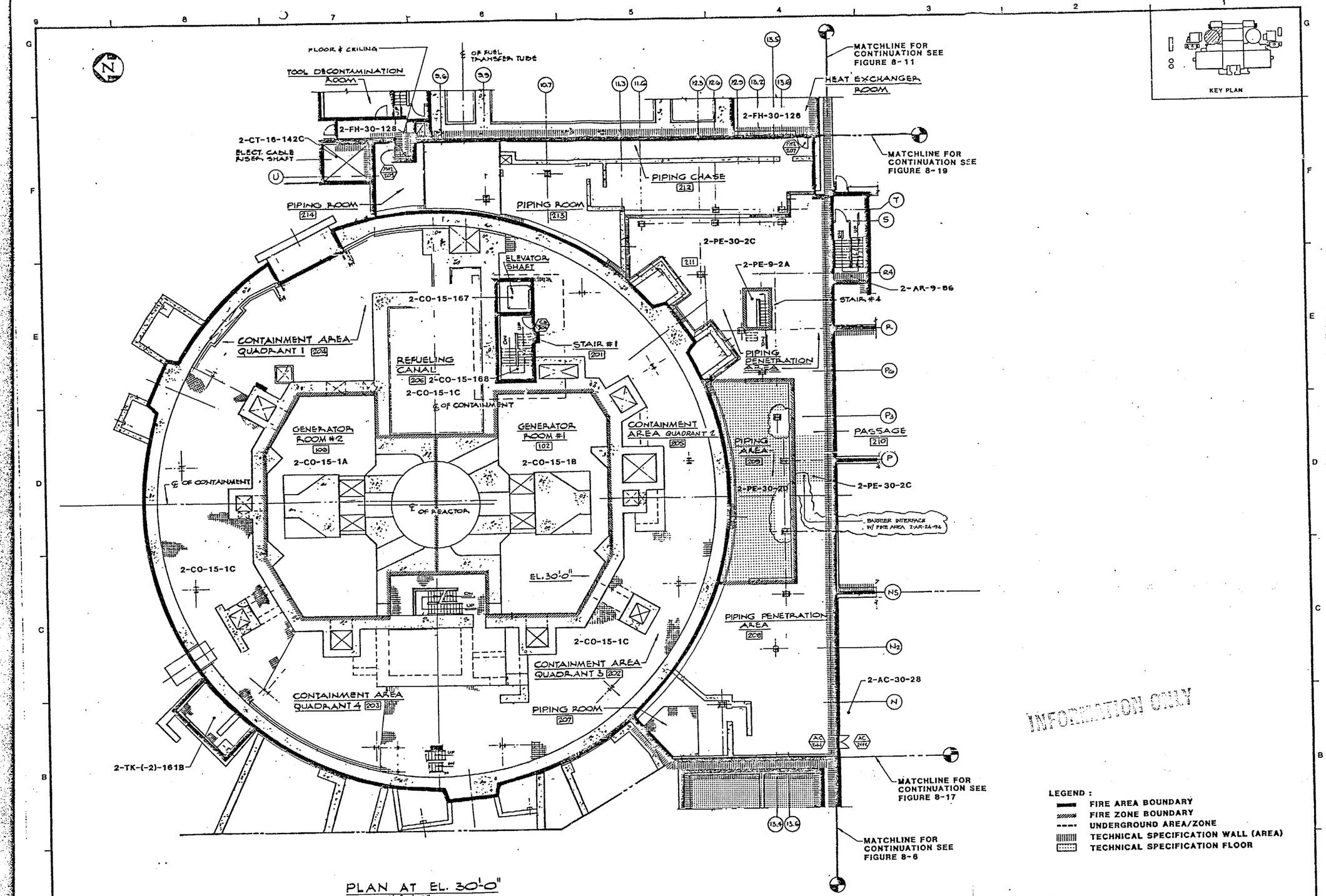
Unit 2
Barriers
Tab


PARTIAL PLAN OF RECIRCULATION LINE GALLERY
SCALE: 1/8" = 1'-0"
PLAN AT BASE LEVEL (EL. 9'-0" & 15'-0")
SCALE: 1/8" = 1'-0"
PARTIAL PLAN AT EL. 9'-0"
SCALE: 1/8" = 1'-0"
KEY PLAN
CONTAINMENT AREA QUADRANT 1 105
CONTAINMENT AREA QUADRANT 2
CONTAINMENT AREA QUADRANT 3 103
CONTAINMENT AREA QUADRANT 4 104
PIPING PENETRATION AREA 113
PIPING PENETRATION AREA 110
PIPING PENETRATION AREA 111
ELEVATOR SHAFT 107
STAIR 101
GENERATOR ROOM #2 106
GENERATOR ROOM #1 102
CORRIDOR 112
EMERGENCY DRAIN SUMP
ROOF EL. 17'-6"
EL. 15'-0"
EL. 9'-0"
℄ OF CONTAINMENT
℄ OF REACTOR
MATCHLINE FOR CONTINUATION SEE FIGURE 8-10
MATCHLINE FOR CONTINUATION SEE FIGURE 8-19
MATCHLINE FOR CONTINUATION SEE FIGURE 8-16
MATCHLINE FOR CONTINUATION SEE FIGURE 8-5
CONT. ON FIGURE 8-16
TECHNICAL SPECIFICATION CEILING IN AREA 2-TB-8-148G (EXTENDING WITH AREA 2-PE-9-2A)
2-SE-(-12)-170
2-FH-15-124
2-FH-17-122
2-CT-18-142C
2-PE-9-2A
2-PE-(-18)-2B
2-AR-9-76
2-AR-9-86
2-AR-24-94
2-CO-15-167
2-CO-15-168
2-CO-15-1C
2-CO-15-1A
2-CO-15-1B
2-TK-(-2)-181B
2-TB-8-148G
LEGEND:
FIRE AREA BOUNDARY
FIRE ZONE BOUNDARY
UNDERGROUND AREA/ZONE
TECHNICAL SPECIFICATION WALL (AREA)
TECHNICAL SPECIFICATION FLOOR
INFORMATION ONLY
QC-IIIFPS
SAN ONOFRE NUCLEAR GENERATING STATION
CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 2 EL. 9'-0" & 15'-0"
TECH. SPEC. BARRIERS
SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-1
REV. 3
SHEET 3 OF 4
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
IMPELL
REV. DATE DESCRIPTION BY CHK.
3 2-2-90 UPDATED BY PLUS PER CHANGE PROPOSAL SP-017 BY J.C.
2 7-17-88 UPDATED FOR FHA REVISION
1 12-16-86 INCORP. CHANGE PROPOSAL SP-017 AS BUILT BY BWPC
0 1-9-84 TECHNICAL SPECIFICATION BARRIERS
LEHA REV. 8 2/90
63094



PLAN AT EL. 30'-0"
SCALE: 1/8"=1'-0"

INFORMATION ONLY

LEGEND:
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

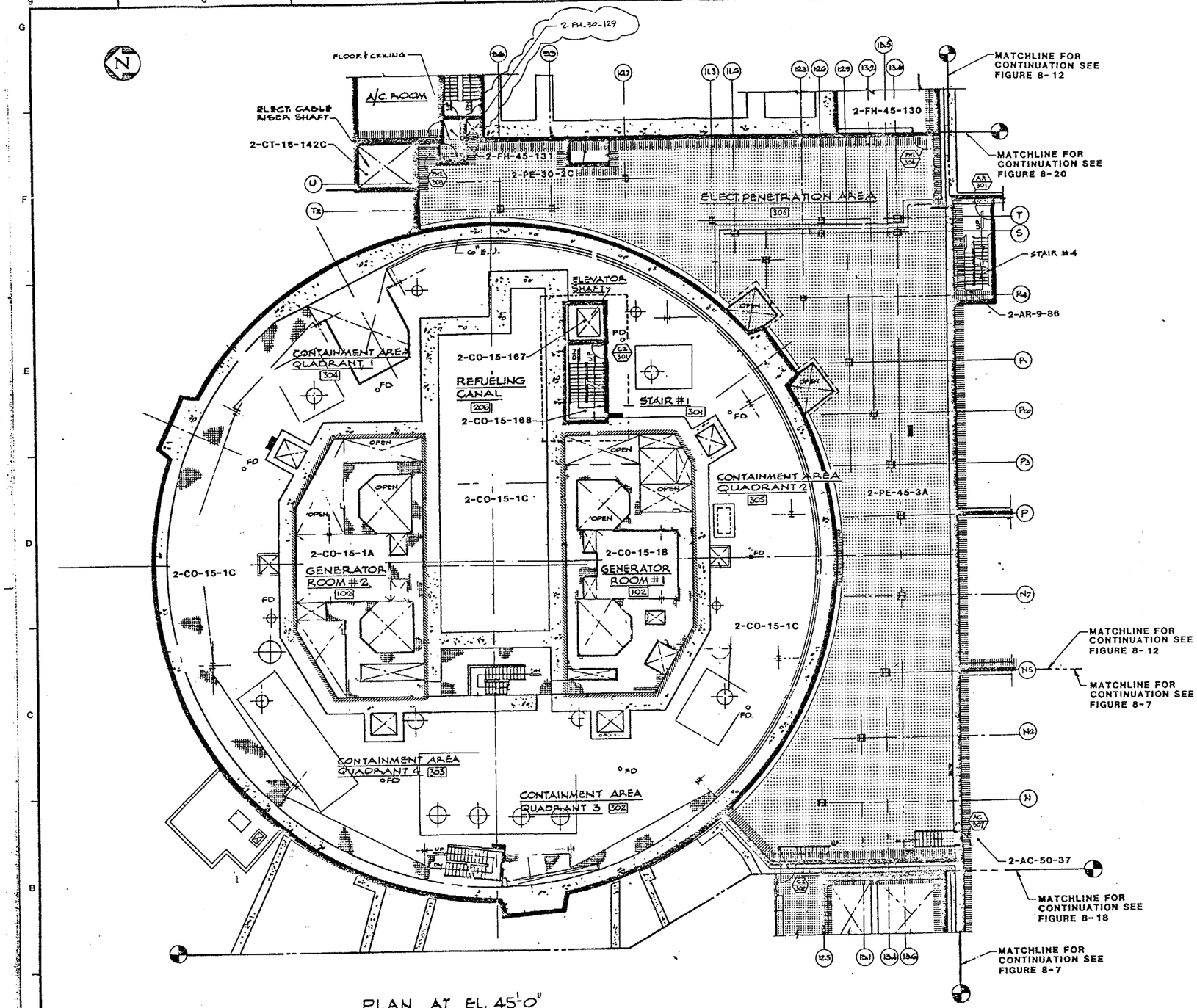
QC-IIIFPS

REV.	DATE	DESCRIPTION	DWN.	CHK.
5	1-10-96	UNCOMP. DCN 1	EF	
4	2-2-90	[illegible]	JC	
3	7-16-88	UPDATED FOR FHA REVISION		
2	12-9-86	INCORP CHG PKG SF032 - BUILT BY BWPC	TG	
1	11-20-84	UPDATED FOR FHA REVISION.		
0	1-9-84	TECHNICAL SPECIFICATION BARRIERS		

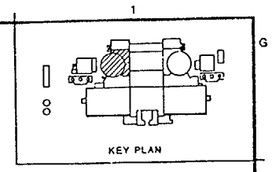
SAN ONOFRE NUCLEAR GENERATING STATION
CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 2 EL. 30'-0"
TECH. SPEC. BARRIERS
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-2
REV. 5
SHEET 3 OF 4

UFHA REV 6 2/90
83055



PLAN AT EL. 45'-0"
SCALE: 1/8" = 1'-0"



INFORMATION ONLY

LEGEND:
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

QC-IIIFPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
4	1-22-90	ADD BOLT PLUGS, ETC. ADDED GL	J.C.		
3	7-19-89	UPDATED FOR FHA REVISION		FRR	
2	11-21-85	INCORP CHG. PKG. SF-026	RR		
1	11-9-84	UPDATED FOR FHA REVISION			
0	1-9-84	TECHNICAL SPECIFICATION BARRIERS			

SAN ONOFRE NUCLEAR GENERATING STATION

CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 2 EL. 45'-0"
TECH. SPEC. BARRIERS

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

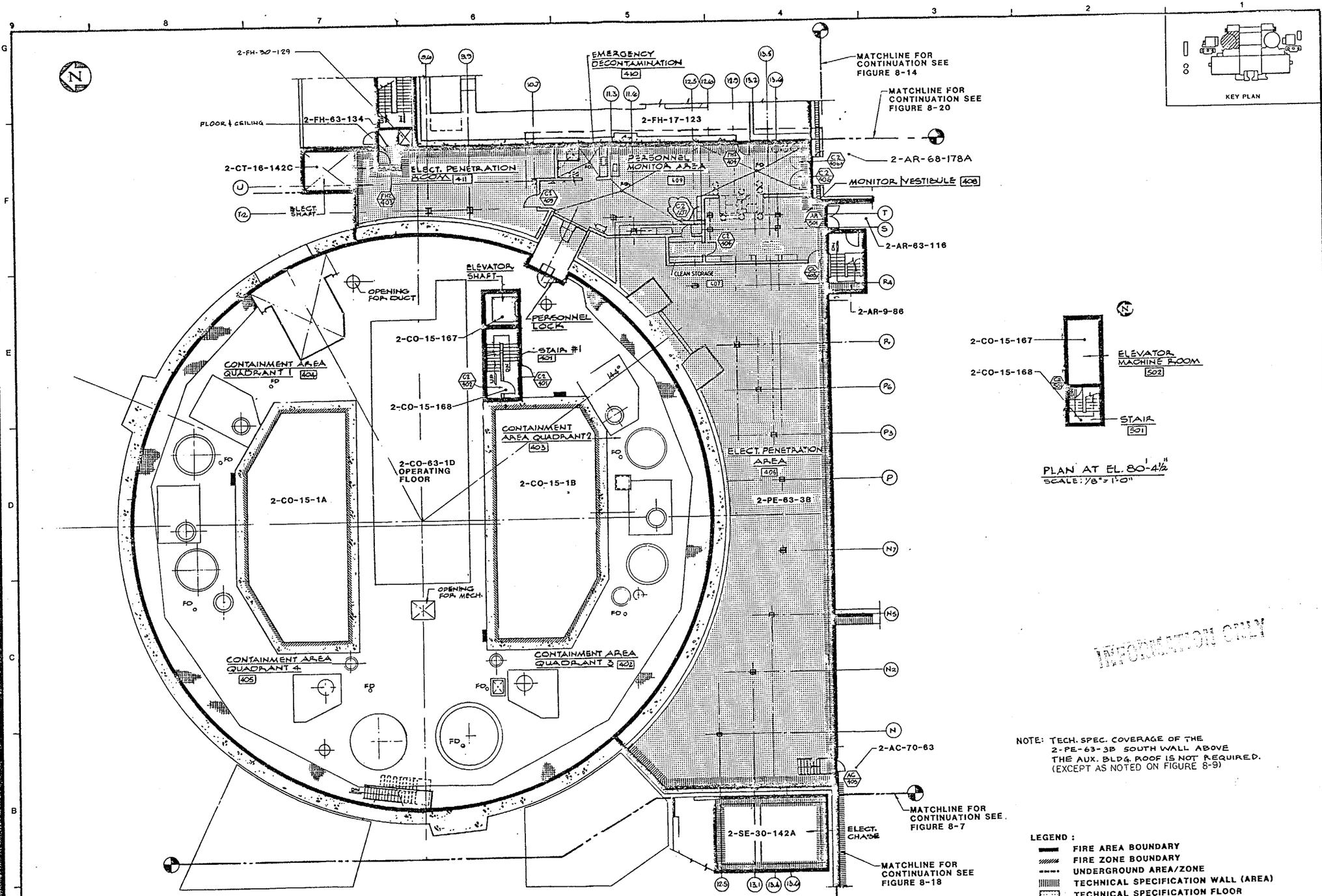
IMPELL CORPORATION

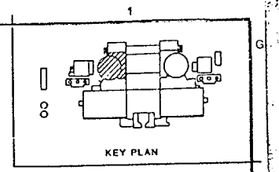
SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-3 REV. 4
SHEET 3 OF 4

UFHA REV 6 2/90

83096

30X





INFORMATION ONLY

NOTE: TECH. SPEC. COVERAGE OF THE 2-PE-63-3B SOUTH WALL ABOVE THE AUX. BLDG. ROOF IS NOT REQUIRED. (EXCEPT AS NOTED ON FIGURE 8-9)

LEGEND:
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

QC III-FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
5	12-5-00	INCORPORATED DCN 3	EP	YM	
4	1-10-96	INCORP DCN 2	JCM		
3	4-22-94	INCORP DCN 1	MRL		
2	1-11-91	REVISED BY FLUOR INC. CHANGE PKG. 095	J.C.		
1	7-1-88	UPDATED FOR FHA REVISION; INCORP.			
–	–	CHANGE PKG. BF-095	—	—	—
0	1-9-84	TECHNICAL SPECIFICATION BARRIERS			

SAN ONOFRE NUCLEAR GENERATING STATION

CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 2 EL. 63'-6"
TECH. SPEC. BARRIERS

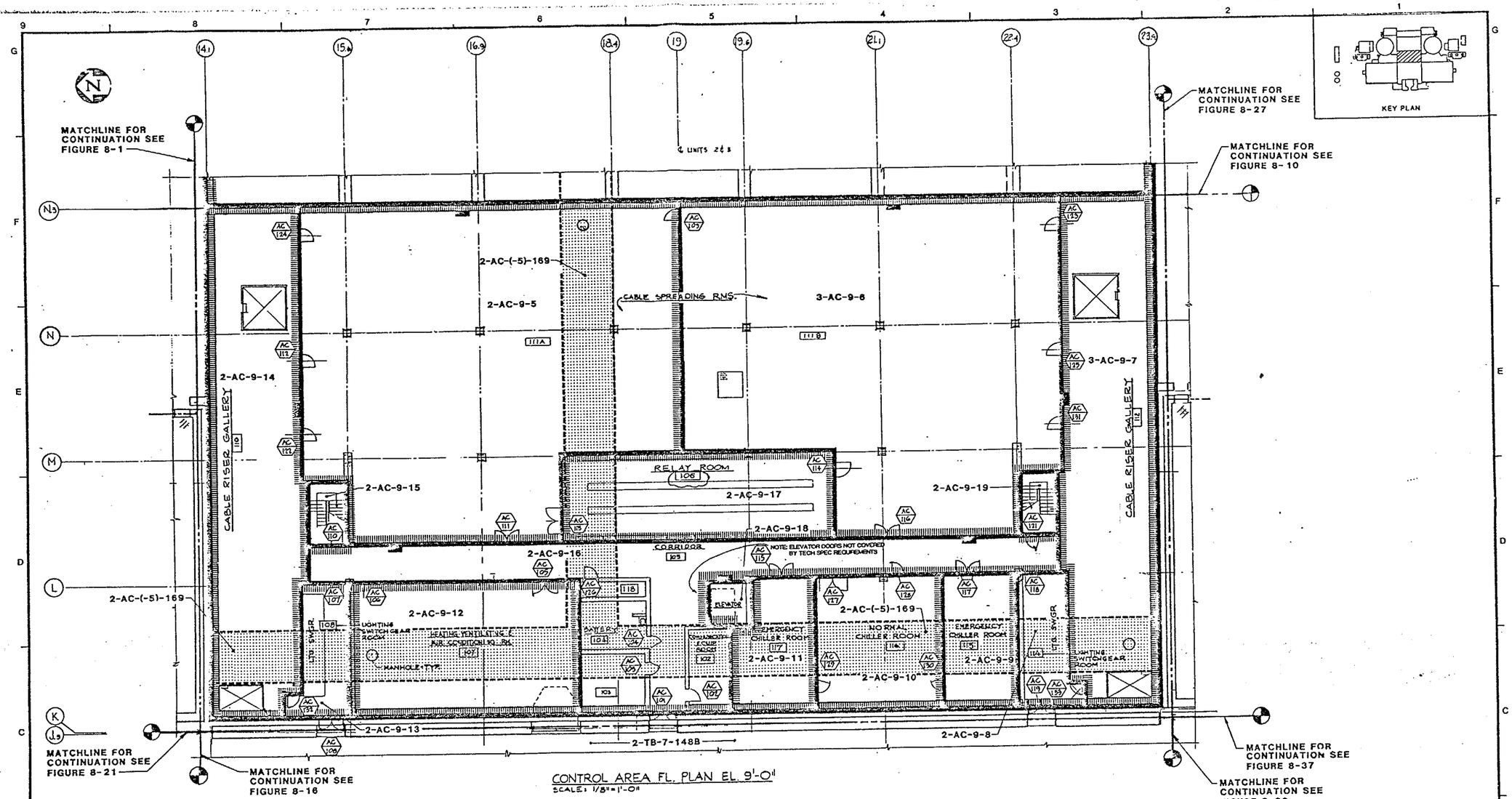
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-4
REV. 5
SHEET 3 OF 4

UFHA REV. 11 2/96

83097



INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

QC III-FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
3	1-10-96	INC. DCN 2	NM	VM	
2	1-10-96	INCORP. DCN 1.	JCL	JCL	
1	7-8-88	UPDATED FOR FHA REVISION	Plan	PSI	
0	1-9-84	TECHNICAL SPECIFICATION BARRIERS		JAA	

SAN ONOFRE NUCLEAR GENERATING STATION

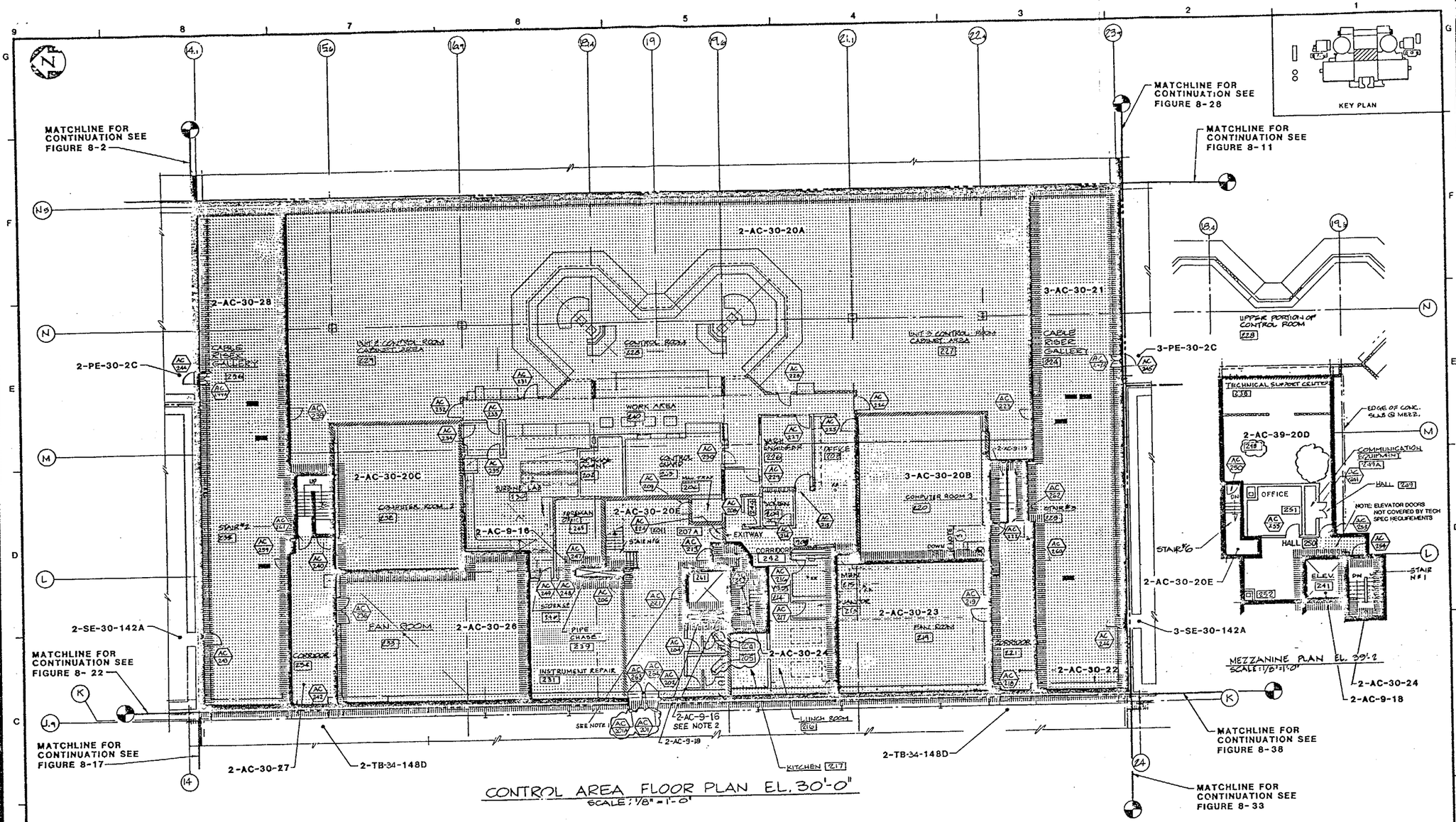
AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 9'-0"
TECH. SPEC. BARRIERS

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-5
REV. 3
SHEET 3 OF 3

UFHA REV. 11 2/96 83098



NOTES:

1. ELEVATOR DOORS NOT COVERED BY TECH SPEC REQUIREMENTS.
2. TECH-SPEC INTERFACE BETWEEN 2-AC-9-16 PIPE CHASE AND 2-AC-9-11 CEILING

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

INFORMATION ONLY

OC III-FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
6	[illegible]	REVISED BY ELECTRONIC PER CHANGE PACKAGE EF-134	RJJ		
5	1-26-87	INCORPORATE CHANGE PACKAGE EF-082	RTC		
4	7-15-86	UPDATED FOR FHA REVISION			
10	3-29-03	INCORPORATED DCN'S 5 THRU 8	EF		
9	1-10-98	INC. DCN 3 & 4	NM		
8	1-11-96	INCORP. DCN 2.	JCM		
7	4-22-94	INCORP. DCN 1.	NML		

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 30'-0"
TECH. SPEC. BARRIERS

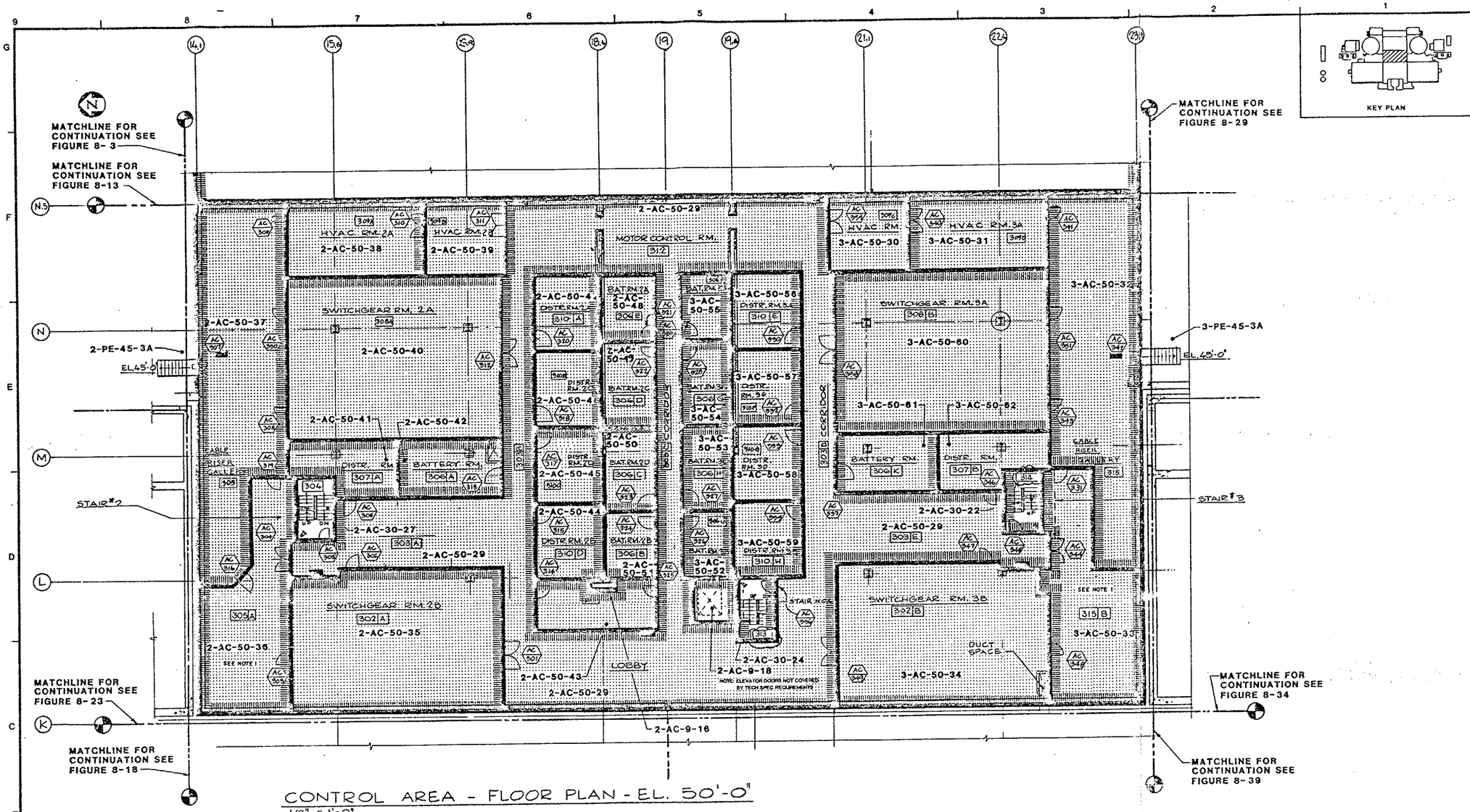
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-6
REV. 10
SHEET 3 OF 4

UFHA REV. 11 2/96

83099



CONTROL AREA - FLOOR PLAN - EL. 50'-0"

1/8" = 1'-0"

INFORMATION ONLY

NOTE:

1. REFERENCES TO THIS ROOM NUMBER ON CERTAIN ELECTRICAL DRAWINGS MAY NOT DESIGNATE THE "A" OR "B" DESIGNATOR ADDED TO CLARIFY FIRE BARRIER/ PENETRATION SEAL DRAWINGS.

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

QUALITY CLASS III FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	PE.
5	12-5-00	INCORPORATED DCN 2.	EF	YM	
4	12-16-92	INCORP DCN 1, AS BUILT.	LGS		
3	1-6-88	UPDATED FOR FHA REVISION			
2	[illegible]	INCORP CHANGE PKG. SF-021	EB		
1	11-20-84	UPDATED FOR FHA REVISION			
0	1/9/84	TECHNICAL SPECIFICATION BARRIERS			

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 50'
TECH. SPEC. BARRIERS

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE : AS NOTED

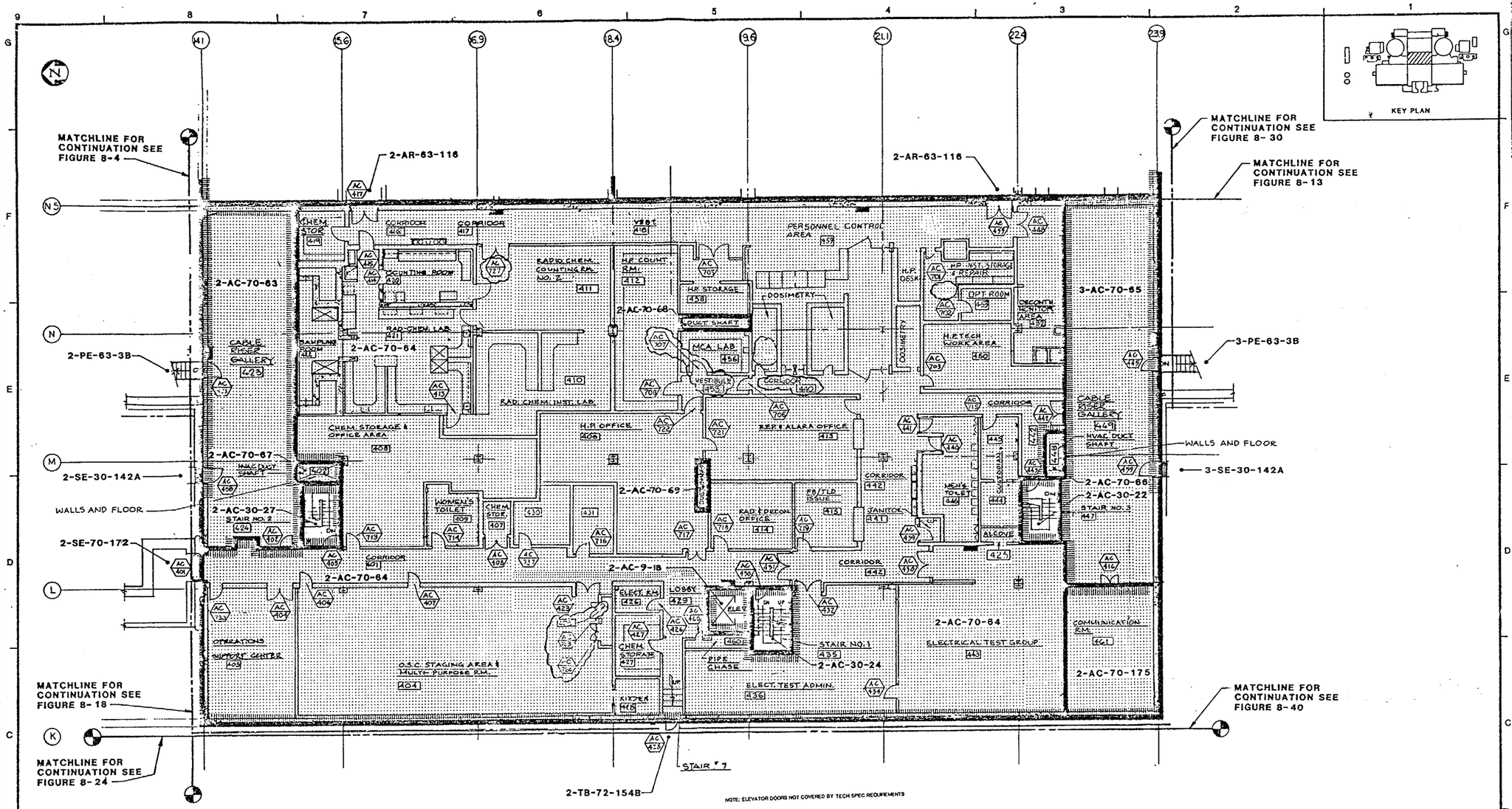
JOB NO. 0310-017

FIGURE NUMBER 8-7 REV. 5

SHEET 3 OF 4

UFHA REV. 9 2/93

83100



CONTROL AREA FLOOR PLAN EL. 70'-0"

SCALE : N.T.S.

INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

QC III-FPS

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.	P.E.
7	4-23-99	INCORP. DCN 2.	—	JD	[illegible]	—
6	7-7-94	INCORP. DCN 1, AS BUILT	—	JD	[illegible]	—
5	[illegible]	AS BUILT BY FLUOR INC. CH6 PKG SF-085, SF-092	[illegible]	PJJ	[illegible]	[illegible]
10	9-29-00	INCORP. DCN'S 5 THRU 9		EP	VM	
9	1-10-96	INCORP. DCN 4		EP	[illegible]	
8	1-11-96	INCORP DCN 3.		JCM	[illegible]	
0	1/9/84	TECHNICAL SPECIFICATION BARRIERS		[illegible]	[illegible]	[illegible]

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 70'-0
TECH. SPEC. BARRIERS

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-8
REV. 10
SHEET 3 OF 4

UFHA REV. 11 2/96 83101

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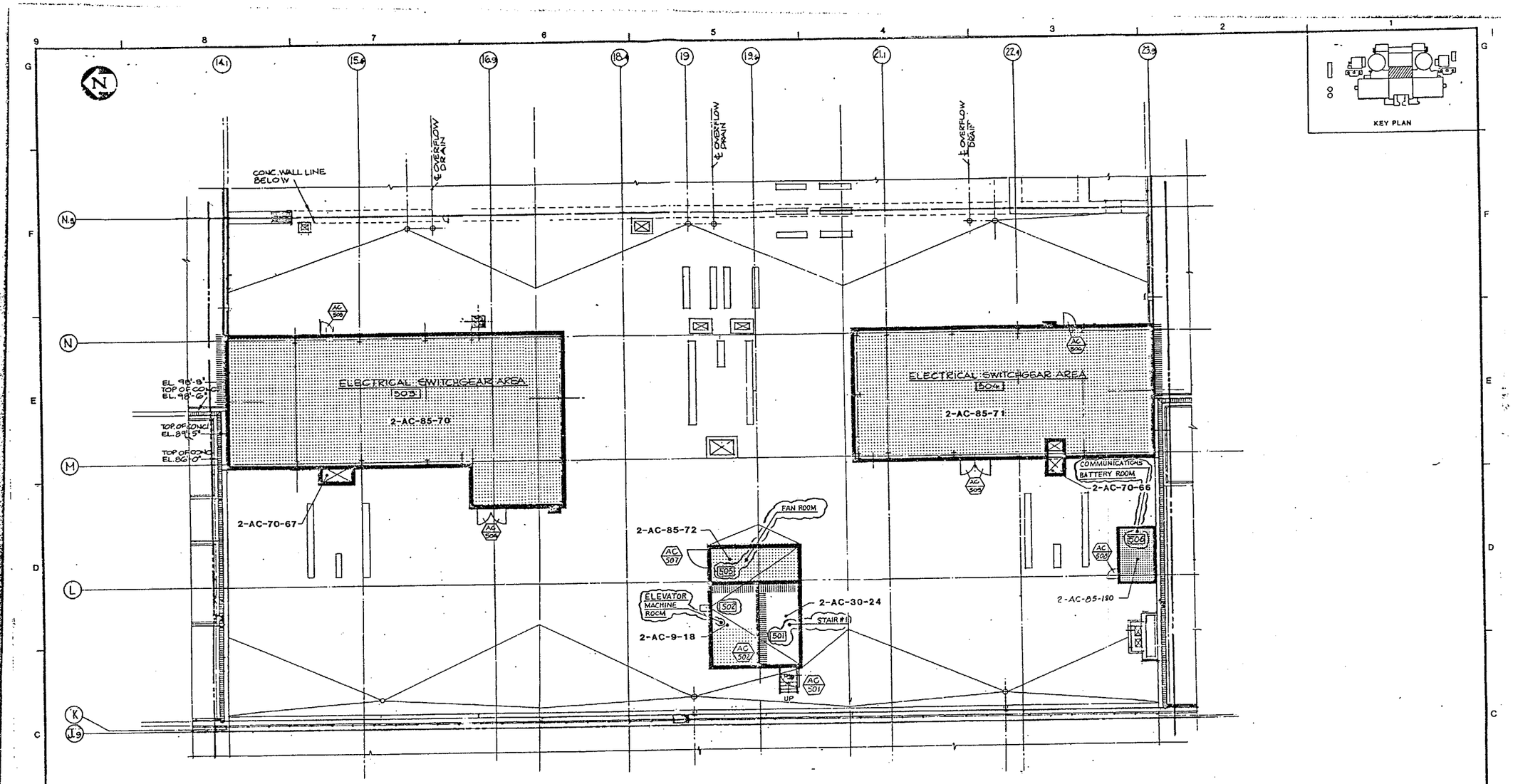


CONTROL AREA - ROOF PLAN EL. 85'-0"

SCALE: 1/8" = 1'-0"

NOTE: TECH. SPEC. COVERAGE OF THE WALLS OF 2-AC-85-70 AND 2-AC-85-71 IS NOT REQUIRED ABOVE THE PENETRATION BLDG. ROOF LINE.

INFORMATION ONLY

LEGEND:

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
4	1-10-98	INC. DCN 1	NM		
3	7-8-88	UPDATED FOR FHA REVISION			
2	11-17-86	INCORP. CHANGE NOTICE (6-596) AS BUILT SY BWPC			
1	1-13-85	INCORP. CHANGE PKG. SF-020			
0	1-9-84	TECHNICAL SPECIFICATION BARRIERS			

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 85'-0"
TECH. SPEC. BARRIERS

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

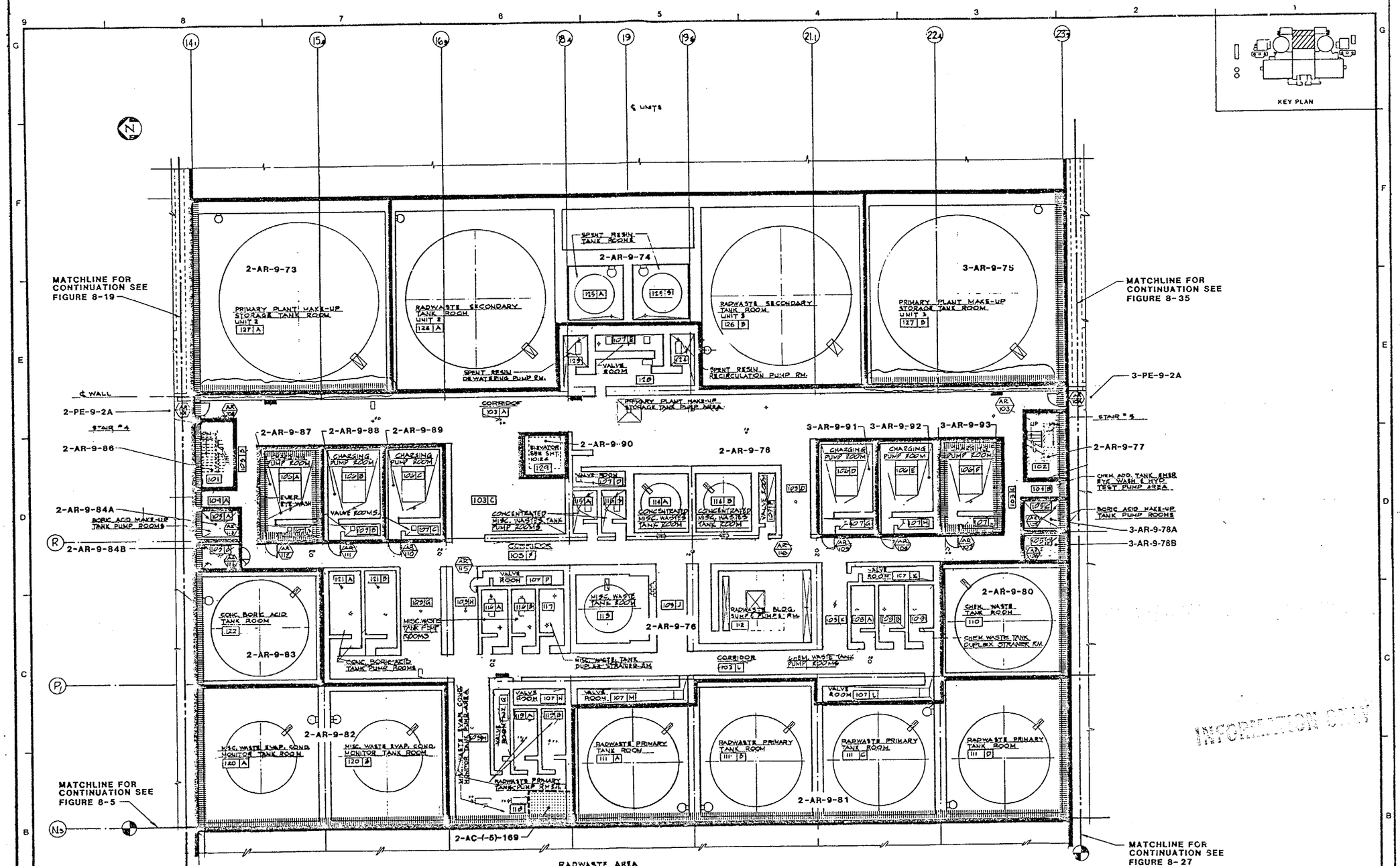
SCALE: AS NOTED

JOB NO. 0310-017

FIGURE NUMBER 8-9 REV. 4

SHEET 3 OF 4

UFIA REV.4 8/89 83102



INFORMATION ONLY

REV.	DATE	DESCRIPTION	DRN.	CHK.	P.E.
3	7-8-94	INCORP. DCN 1 AS BUILT.	J.D.		
2	7-8-88	UPDATED FOR FHA REVISION			
1	11-10-84	UPDATED FOR FHA REVISION.			
0	1-9-84	TECHNICAL SPECIFICATION BARRIERS			

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 9'-0"
TECH. SPEC. BARRIERS

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

UFHA REV. 10 8/94

SCALE : AS NOTED

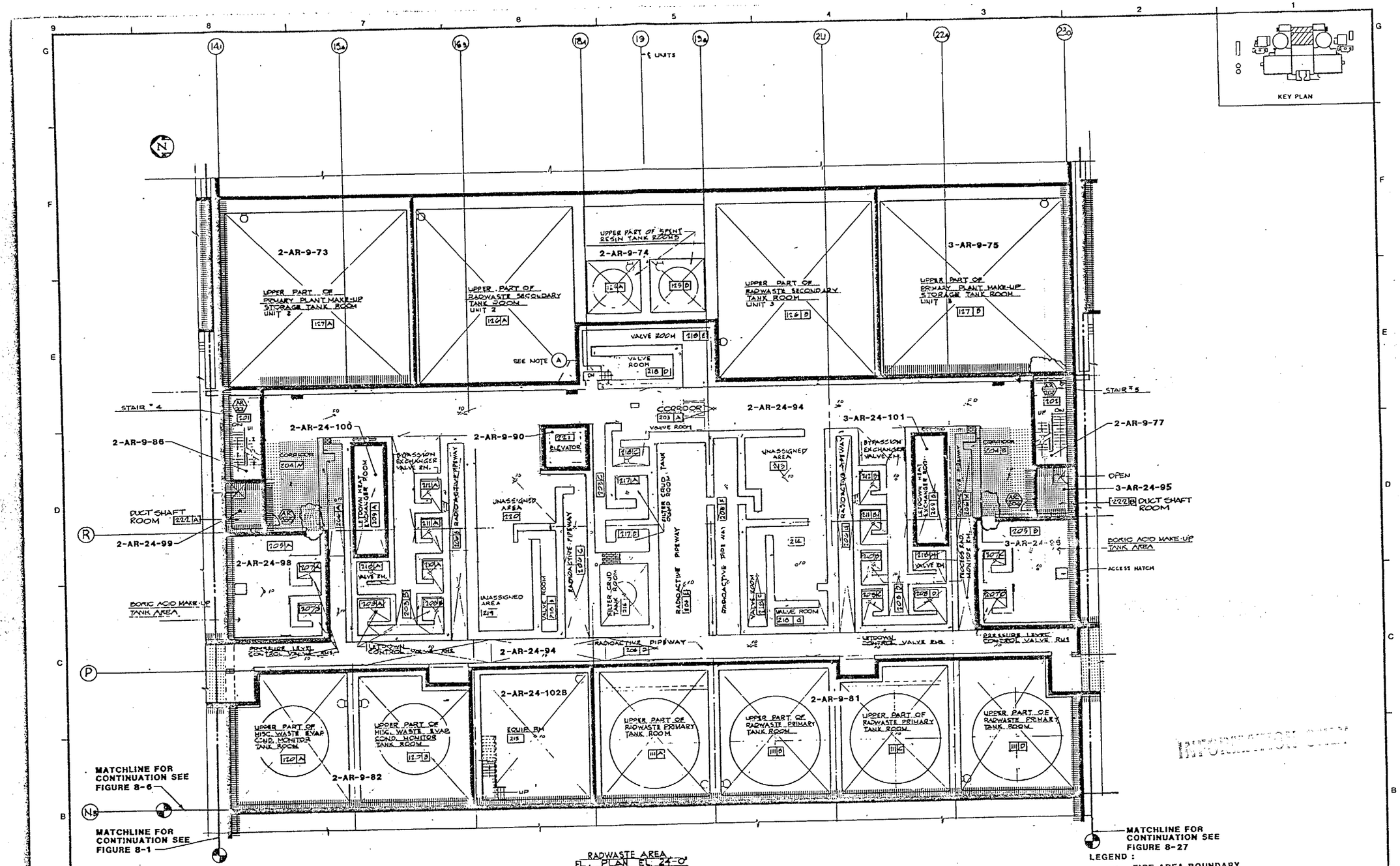
JOB NO. 0310-017

FIGURE NUMBER 8-10

REV. 3

SHEET 3 OF 4

83103



LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

QC III–FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
4	1-10-96	INCORP. DCN 3.	EF	TGG	
3	1-11-94	INCORP. DCN 2.	JCN	NL	
2	3-8-94	INCORP. DCN 1, AS BUILT.	JD	JP	
1	7-16-88	UPDATED FOR FHA REVISION	GS	KB	JD
0	1-9-84	TECHNICAL SPECIFICATION BARRIERS	[illegible]	[illegible]	[illegible]

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 24'-0"
TECH. SPEC. BARRIERS

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

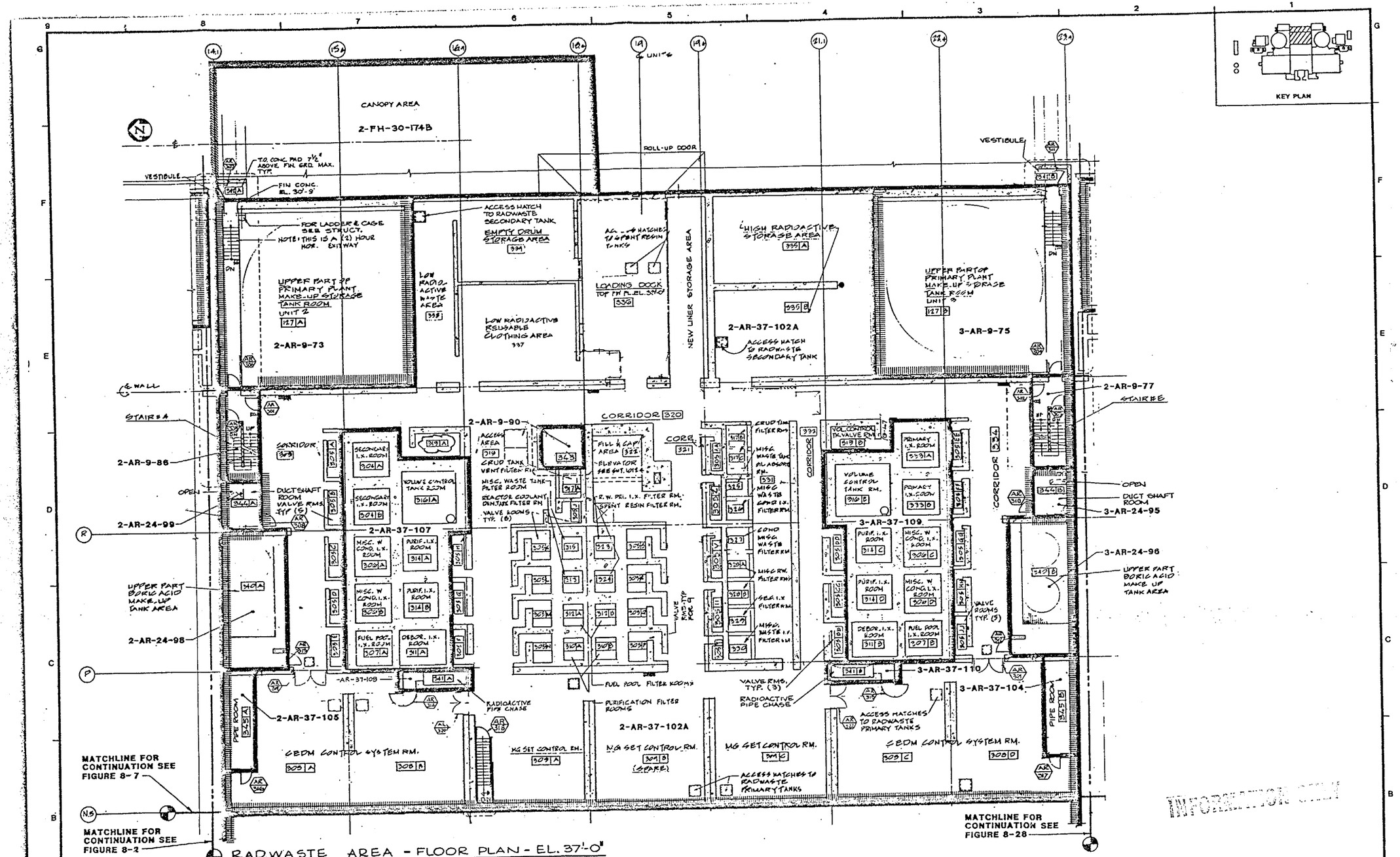
SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-11
REV. 4
SHEET 3 OF 4

UFHA REV. 11 2/96

83104

INFORMATION ONLY

MICROFILMED FROM



RADWASTE AREA - FLOOR PLAN - EL. 37'-0"

SCALE: N.T.S.

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

QC III-FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
6	1-11-96	INCORP. DCN 2.	JCM	KRL	
5	3-3-94	INCORP. DCN 1. AS BUILT.	LDW		
4	1-22-92	AS BUILT BY FLUOR/SC. CHG PKG. 92-082 SC			
3	7-8-88	UPDATED FOR FHA REVISION, INCORP.		FB	
—	—	CHANGE PKG. 88-095			
2	12-16-86	INCORP. CHANGE NOTICE (8-594) AS BUILT BY BWPC			
1	2-10-85	INCORPORATED DCN 3			
0	1-9-84	TECHNICAL SPECIFICATION	RR		

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 37'-0"
TECH. SPEC. BARRIERS

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

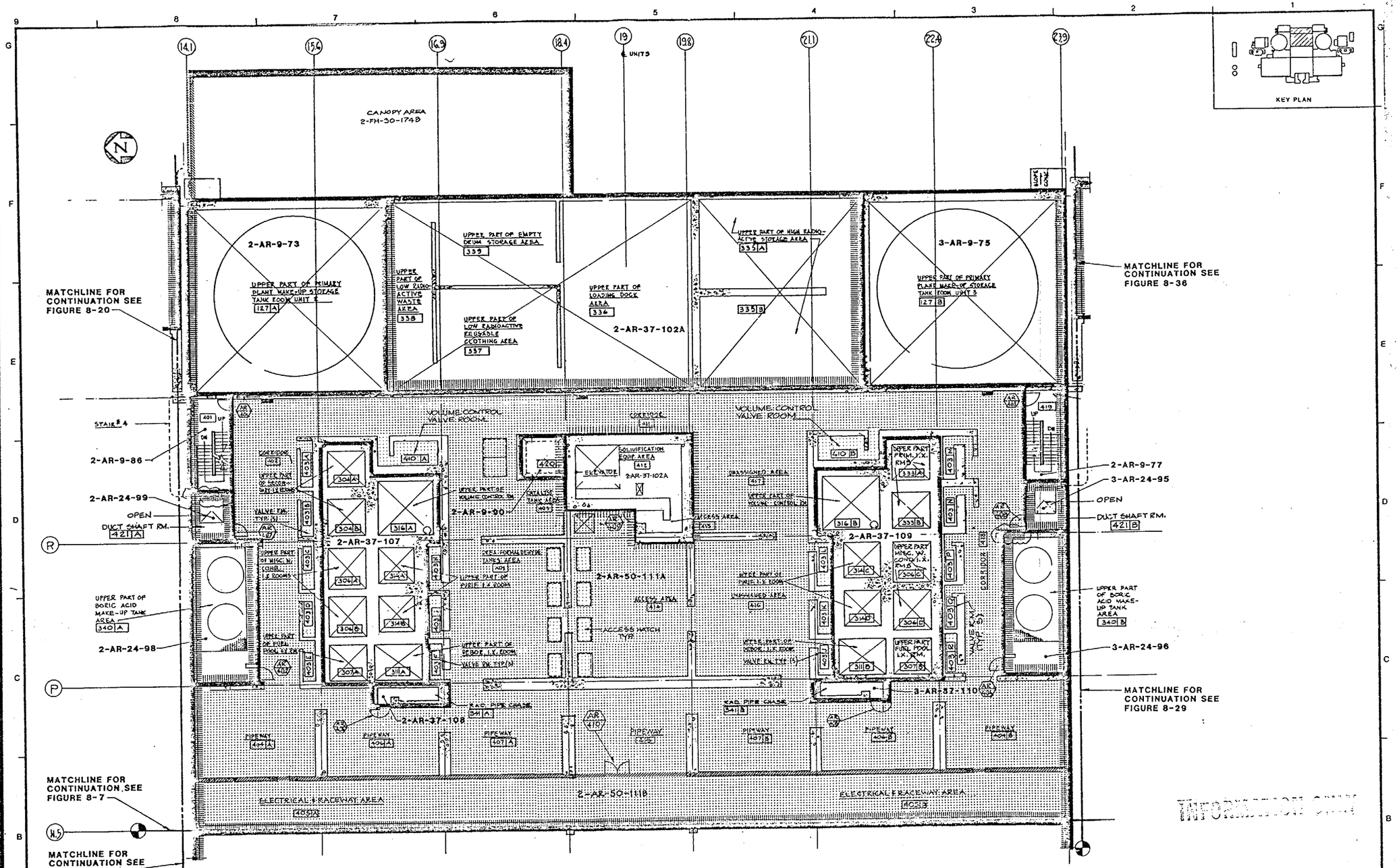
SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-12
REV. 7
SHEET 3 OF 4

2 UFHA REV. 11 2/96

83105

INFORMATION ONLY

MICROFILMED FROM



QC III-FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
G	10-4-00	INCORP. DCN 4	EP	VN	
5	1-10-96	INCORP. DCN 3	EP	EGG	
4	1-11-94	INCORP DCN 2	JCM	NL	
3	3-10-94	INCORPORATED DCN 1, AS BUILT.	J.D.		—
2	7-5-88	UPDATED FOR FHA REVISION			
1	11-10-86	INCORP. CHG. PKG. SF-011	EH		
0	1-9-84	TECHNICAL SPECIFICATION BARRIERS		WRE	

SAN ONOFRE NUCLEAR GENERATING STATION

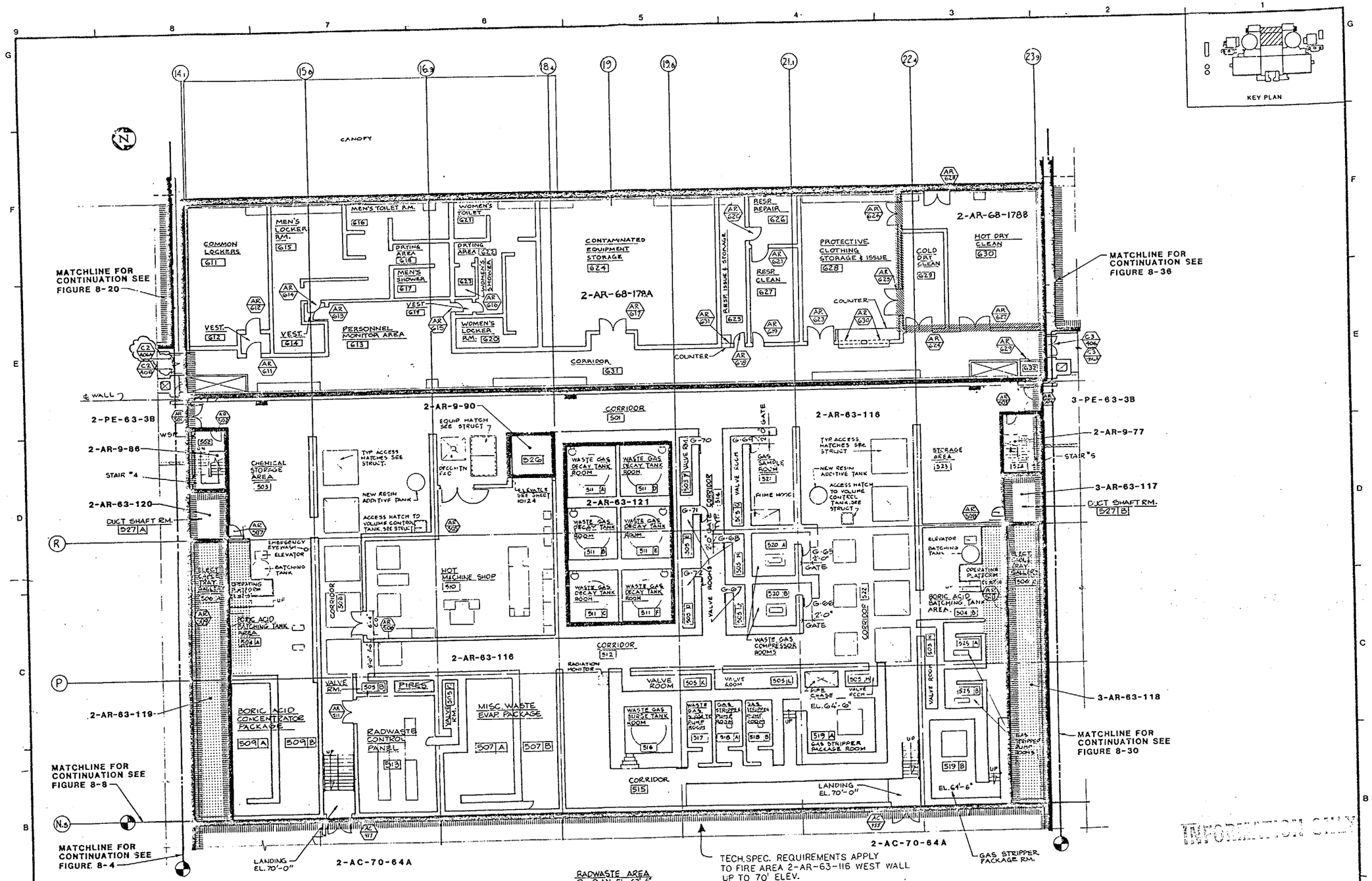
AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 50'-0"
TECH. SPEC. BARRIERS

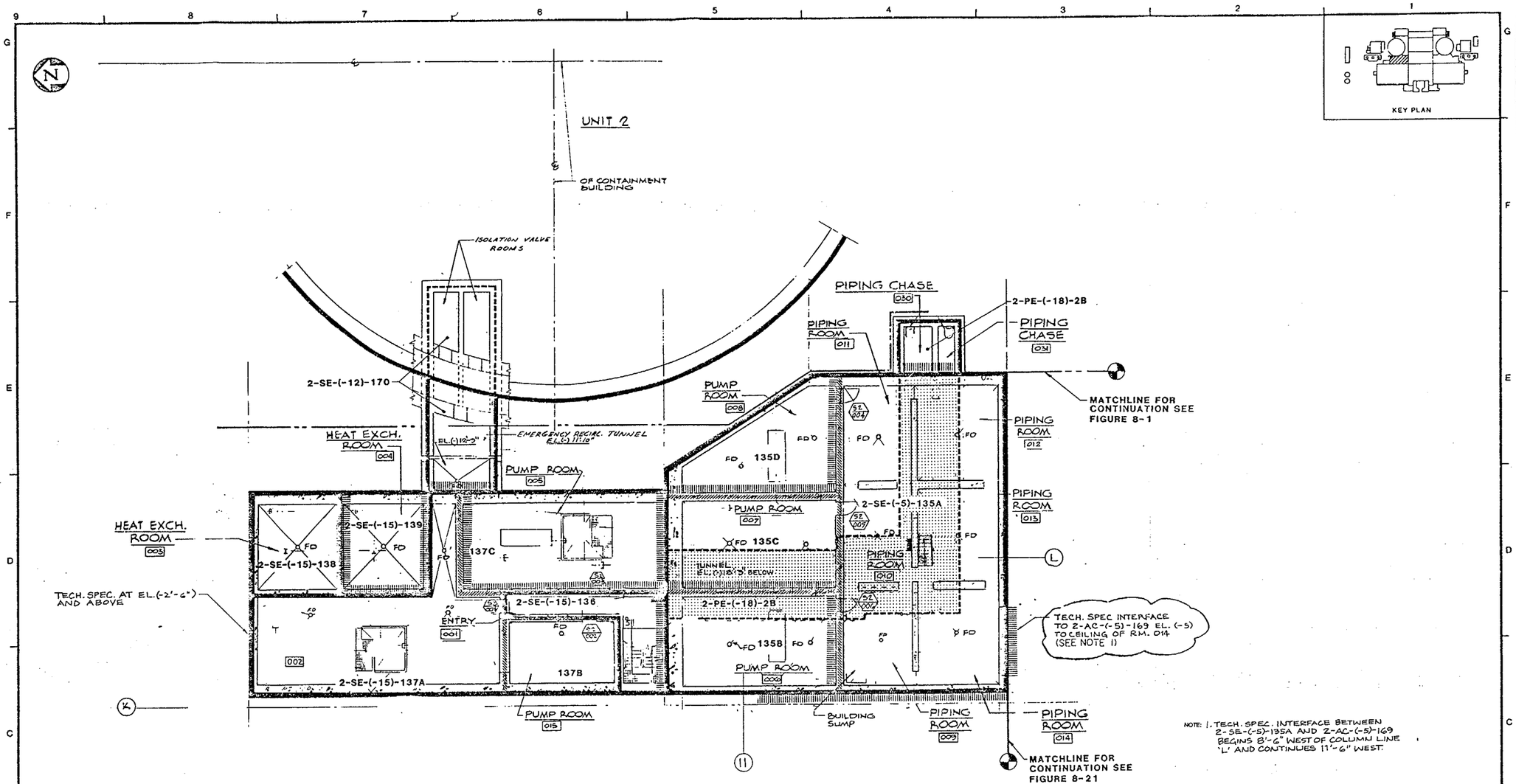
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-13
REV. 6
SHEET 3 OF 4

UFHA REV. 11 2/96 83106

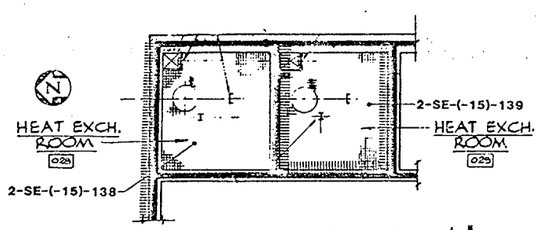

KEY PLAN
CANOPY
COMMON LOCKERS 611
MEN'S LOCKER RM. 615
MEN'S TOILET RM. 616
WOMEN'S TOILET 621
DRYING AREA 618
DRYING AREA 622
MEN'S SHOWER 617
WOMEN'S SHOWER 623
WOMEN'S LOCKER RM. 620
VEST. 612
VEST. 614
VEST. 619
PERSONNEL MONITOR AREA 613
CONTAMINATED EQUIPMENT STORAGE 624
2-AR-68-179A
CORRIDOR 631
RESP. ISSUE & STORAGE 625
RESP. REPAIR 626
RESP. CLEAN 627
COUNTER
PROTECTIVE CLOTHING STORAGE & ISSUE 628
COLD DRY CLEAN 629
HOT DRY CLEAN 630
2-AR-68-178B
MATCHLINE FOR CONTINUATION SEE FIGURE 8-20
MATCHLINE FOR CONTINUATION SEE FIGURE 8-36
2-PE-63-3B
2-AR-9-86
STAIR #4
2-AR-63-120
DUCT SHAFT RM. 527 A
CHEMICAL STORAGE AREA 503
TYP. ACCESS HATCHES SEE STRUCT.
NEW RESIN ADDITIVE TANK
ACCESS HATCH TO VOLUME CONTROL TANK SEE STRUCT.
2-AR-9-90
EQUIP. HATCH SEE STRUCT.
526
ELEVATOR SEE SHEET 10124
CORRIDOR 501
WASTE GAS DECAY TANK ROOM 511 A
WASTE GAS DECAY TANK ROOM 511 D
2-AR-63-121
WASTE GAS DECAY TANK ROOM 511 B
WASTE GAS DECAY TANK ROOM 511 E
WASTE GAS DECAY TANK ROOM 511 C
WASTE GAS DECAY TANK ROOM 511 F
VALVE RM. 505 J
VALVE ROOM 505 K
VALVE ROOM 505 L
GAS SAMPLE ROOM 521
PUMP HOUSE
2-AR-63-116
STORAGE AREA 523
3-PE-63-3B
2-AR-9-77
STAIR #5
3-AR-63-117
DUCT SHAFT RM. 527 B
EMERGENCY EYEWASH
ELEVATOR
BATCHING TANK
BORIC ACID BATCHING TANK AREA 504 A
CORRIDOR 505
HOT MACHINE SHOP 510
CORRIDOR 512
RADIATION MONITOR
WASTE GAS COMPRESSOR ROOMS
520 A
520 B
525 A
525 B
BORIC ACID BATCHING TANK AREA 504 B
2-AR-63-119
BORIC ACID CONCENTRATOR PACKAGE
509 A
509 B
VALVE RM. 505 B
PIPES
RADWASTE CONTROL PANEL 513
VALVE RM. 505 F
MISC. WASTE EVAP. PACKAGE
507 A
507 B
WASTE GAS SURGE TANK ROOM 516
WASTE GAS STRIPPER PUMP ROOM 517
GAS STRIPPER PUMP ROOM 518 A
GAS STRIPPER PUMP ROOM 518 B
FIRE CHASE EL. 64'-6"
VALVE RM. 505 M
GAS STRIPPER PACKAGE ROOM 519 A
519 B
EL. 64'-6"
3-AR-63-118
MATCHLINE FOR CONTINUATION SEE FIGURE 8-30
CORRIDOR 515
LANDING EL. 70'-0"
MATCHLINE FOR CONTINUATION SEE FIGURE 8-8
MATCHLINE FOR CONTINUATION SEE FIGURE 8-4
2-AC-70-64A
TECH. SPEC. REQUIREMENTS APPLY TO FIRE AREA 2-AR-63-116 WEST WALL UP TO 70' ELEV.
GAS STRIPPER PACKAGE RM.
RADWASTE AREA FL. PLAN EL 63'-6" SCALE: N.T.S.
LEGEND:
FIRE AREA BOUNDARY
FIRE ZONE BOUNDARY
UNDERGROUND AREA/ZONE
TECHNICAL SPECIFICATION WALL (AREA)
TECHNICAL SPECIFICATION FLOOR
QC III-FPS
SAN ONOFRE NUCLEAR GENERATING STATION
AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 63'-6"
TECH. SPEC. BARRIERS
SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-14
REV. 4
SHEET 3 OF 4
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
IMPELL
4 1-11-96 INCORP. DCN 2.
3 3-9-94 INCORP. DCN 1, AS BUILT.
2 1-28-91 INCORPORATE CHANGE PACKAGE BF-1448
1 1/15/85 UPDATED FOR FHA REVISION
0 1-9-84 TECHNICAL SPECIFICATION BARRIERS
REV. DATE DESCRIPTION DWN. CHK.
UFHA REV. 11 2/96
83107
INFORMATION ONLY



PLAN AT ELEVATION (-) 15'-6 & (-) 5'-3"

NOTE: 1. TECH. SPEC. INTERFACE BETWEEN 2-SE-(-5)-135A AND 2-AC-(-5)-169 BEGINS 8'-6" WEST OF COLUMN LINE 'L' AND CONTINUES 11'-6" WEST.

2. THE INTERFACE FROM 137C TO 26 AND 139 TO 29 IS NOT COVERED BY THE TECH SPECS. THIS INTERFACE OCCURS BELOW THE WALL BETWEEN 137C/135C AND 138/135B (WHICH ARE TECH SPEC) AND AS SUCH IS NOT SHOWN.



PLAN AT PLATFORM EL.(-)2'-0" ABOVE HEAT EXCH. ROOMS (1)
SCALE: 1/8" = 1'-0"

INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
2	2-6-00	INCORPORATED CCN 1	EP	VM	
1	1-15-85	INCORPORATE CHANGE PKG. BF-112 REV. 1,			
–	–	UPDATED FOR FHA REVISION	–	–	
0	1-9-84	TECHNICAL SPECIFICATION BARRIERS			

SAN ONOFRE NUCLEAR GENERATING STATION

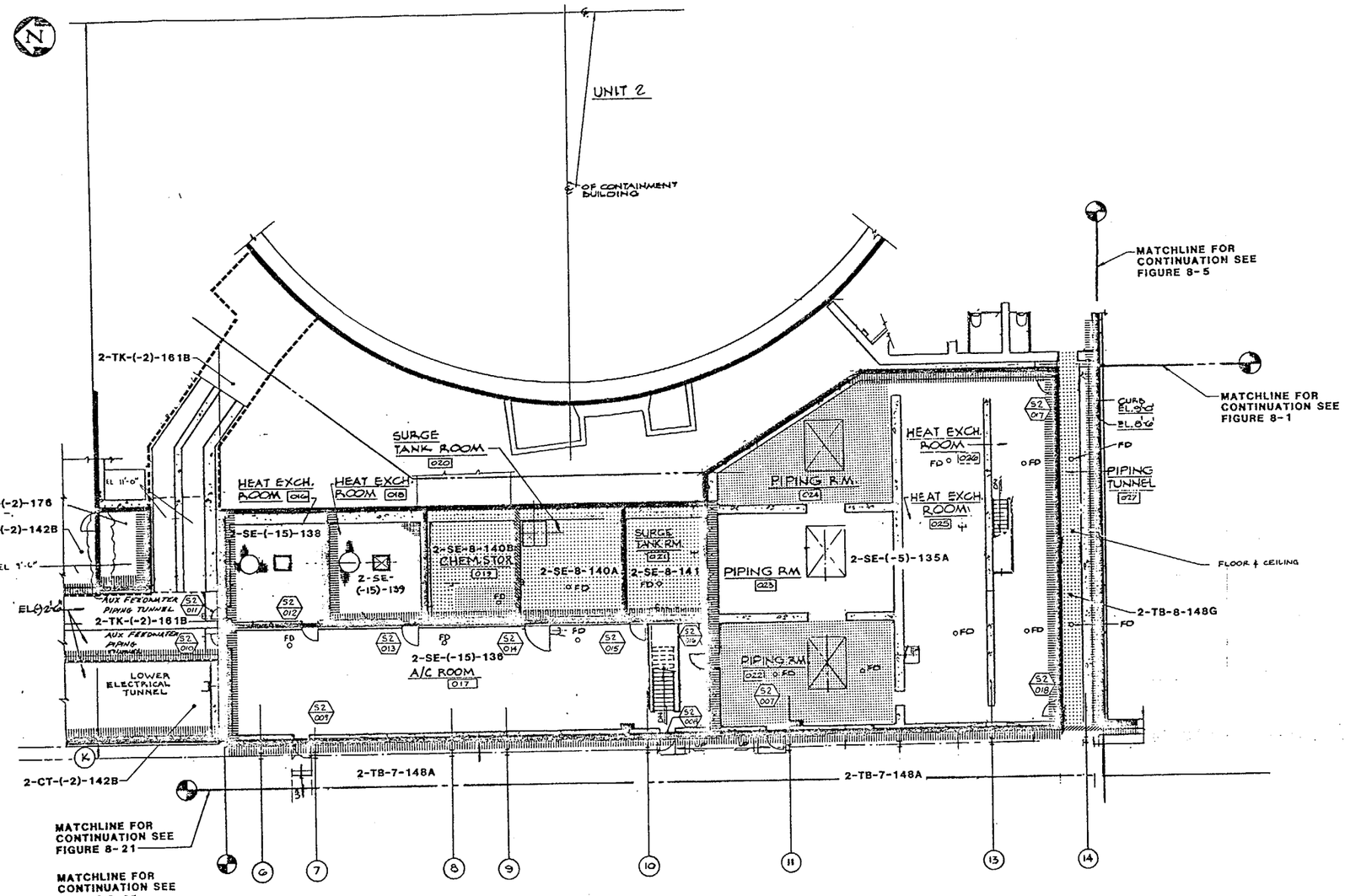
SAFETY EQUIPMENT BLDG
UNIT 2 EL.-15'-6" & -5'-3"
TECH. SPEC. BARRIERS

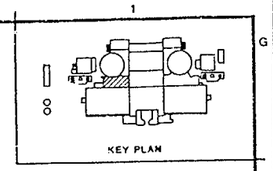
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-15 REV. 2
SHEET 3 OF 3

UFHA REV. 4 8/88 1 89108





PLAN AT ELEVATION 8'-0"

SCALE: 1/8" = 1'-0"

LEGEND:

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

BC-III FPS

REV.	DATE	DESCRIPTION	DA	DWN.	CHK.	P.E.
a	2-2-90	AS PER BY PLUMBING CHG-PKG. SF-113				
2	1-29-87	INCORPORATE CHANGE PACKAGES SF-042 AND SF-064				
1	7-8-86	UPDATED FOR FHA REVISION, INCORP.				
—	—	CHANGE PKG. BF-112 REV. 1				
0	1-9-84	TECHNICAL SPECIFICATION SERIES				

SAN ONOFRE NUCLEAR GENERATING STATION

SAFETY EQUIPMENT BLDG
UNIT 2 EL. 9'-0"
TECH. SPEC. BARRIERS

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-16
REV. 3
SHEET 3 OF 4

2 (UFHA REV 8 2/90)

83109

INFORMATION ONLY

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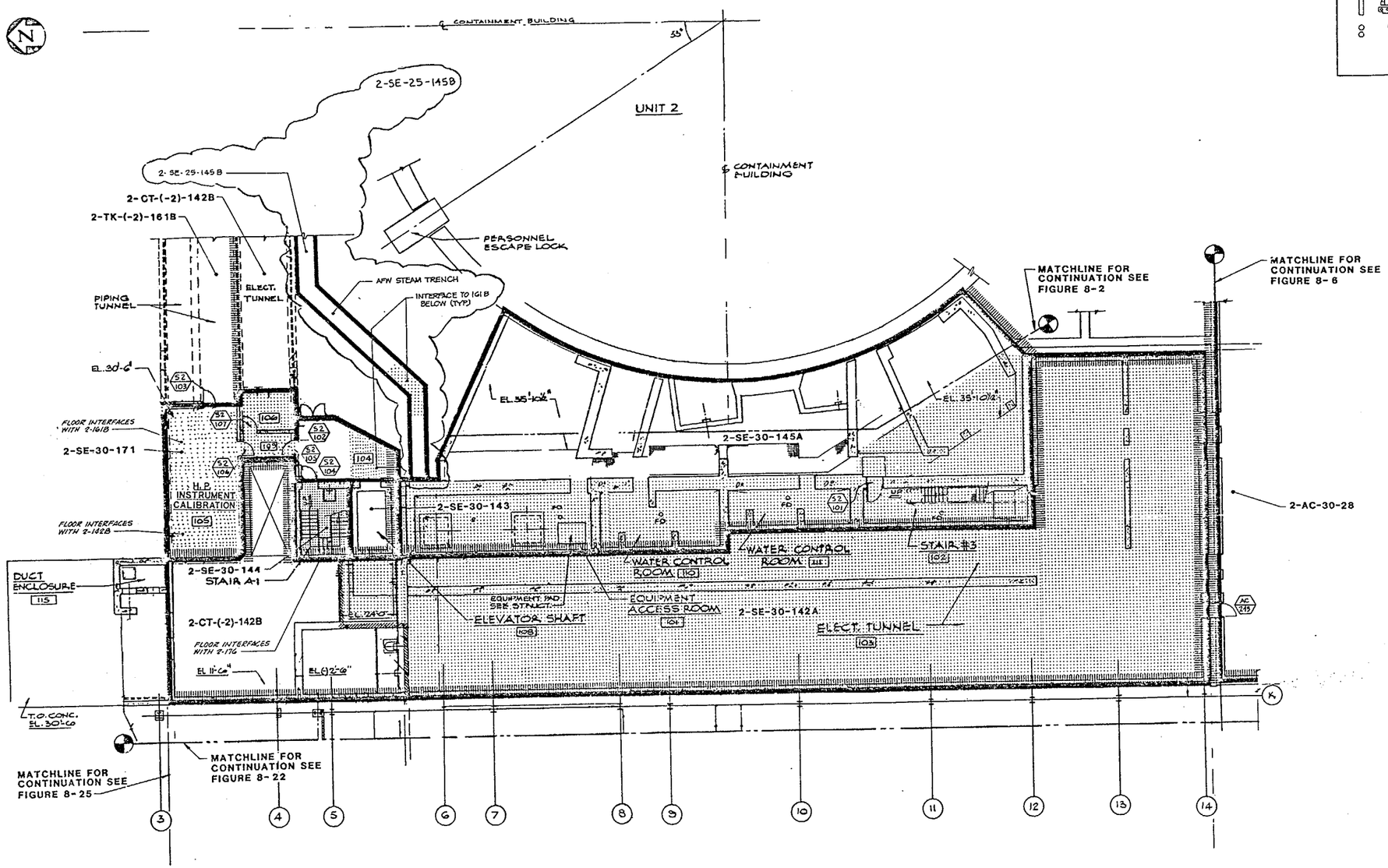
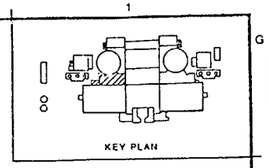




INFORMATION ONLY

PLAN AT ELEVATION 30'-6"

SCALE: N.T.S.

LEGEND:

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

QC-III FPS

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.
G	12-5-00	INCORPORATED DCN 3		EK	VH
5	1-9-97	INCORP DCN 2		NA	VH
4	12-17-92	INCORP DCN 1, AS BUILT.		LGS	AAR
3	2-2-90	AS BUILT BY FLUOR; INC CHG PKG SF-087, ADDED QC		P.A.J.	
2	7-8-88	UPDATED FOR FHA REVISION			
1	11-20-84	UPDATED FOR FHA REVISION.			
0	1-9-84	TECHNICAL SPECIFICATION WARRIERS			

SAN ONOFRE NUCLEAR GENERATING STATION

SAFETY EQUIPMENT BLDG
UNIT 2 EL. 30'-6"
TECH. SPEC. BARRIERS

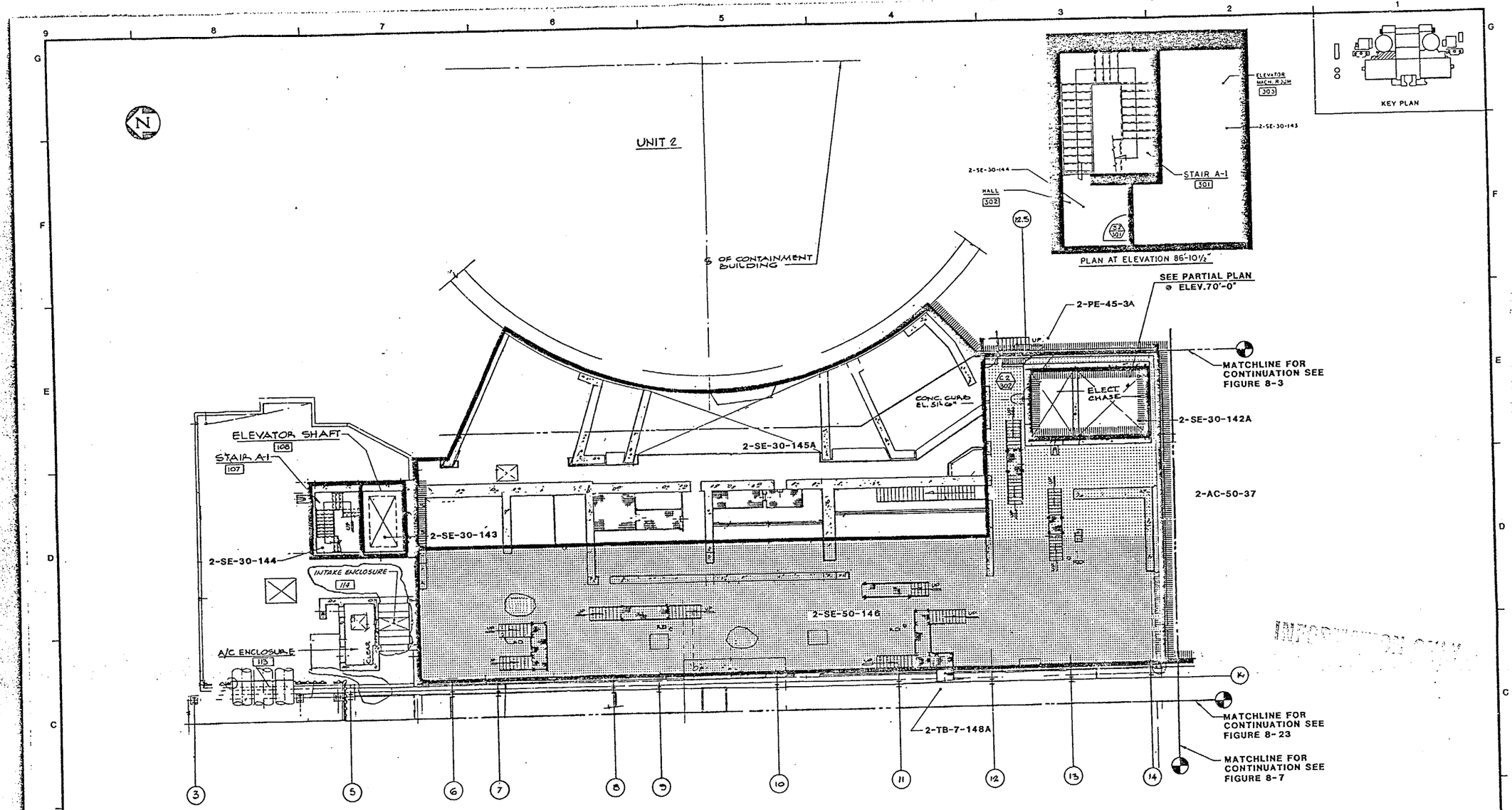
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-17
REV. 6
SHEET 3 OF 4

UFHA REV. 9 2/93

83110



INFORMATION ONLY

30X
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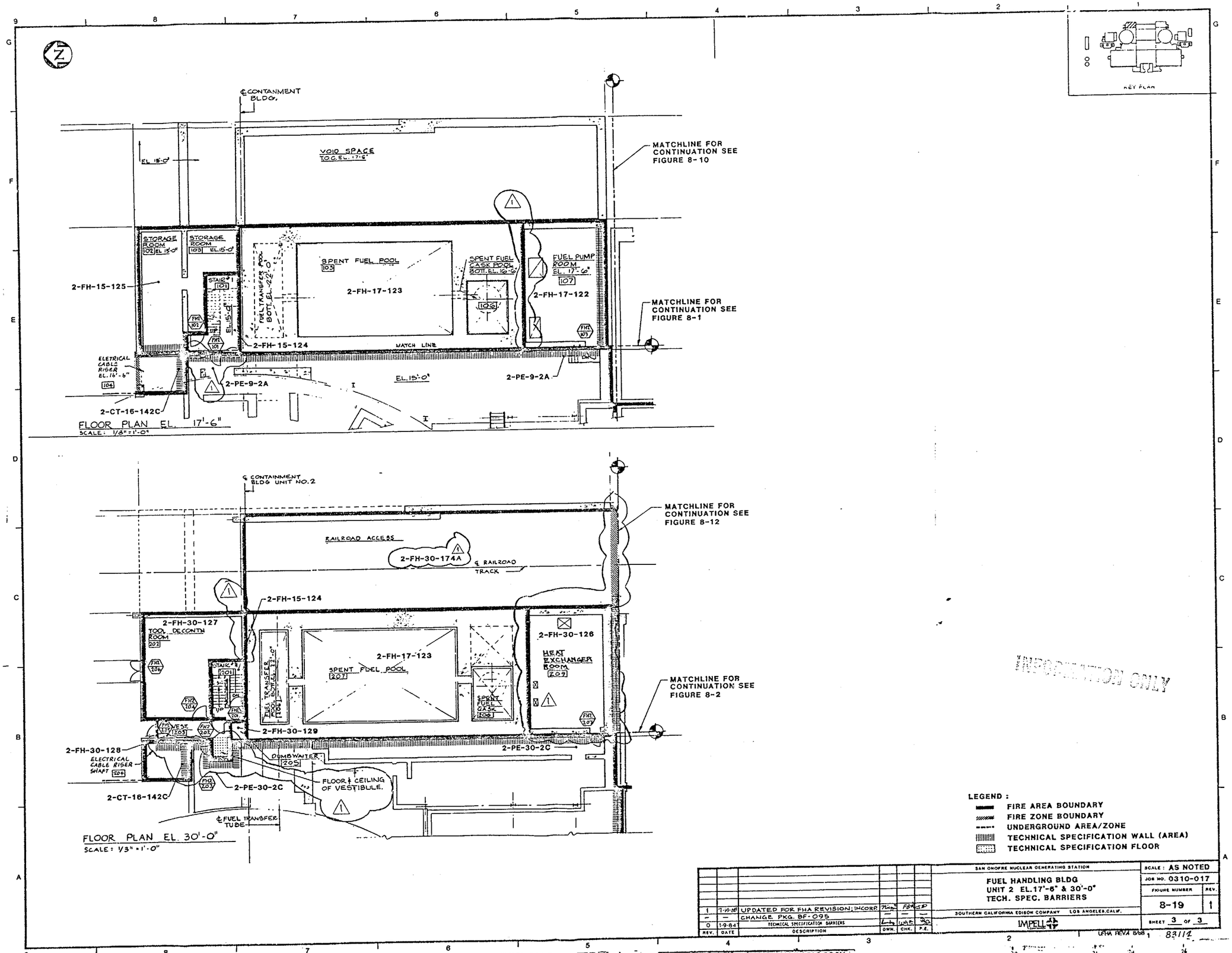

INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
1	7-19-88	UPDATED FOR FHA REVISION; INCORP.			
–	–	CHANGE PKG. BF-095			
0	1-9-84	TECHNICAL SPECIFICATION BARRIERS			

SAN ONOFRE NUCLEAR GENERATING STATION

FUEL HANDLING BLDG
UNIT 2 EL.17'-6" & 30'-0"
TECH. SPEC. BARRIERS

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-19
REV. 1
SHEET 3 OF 3

UFM REV4 8/88 83112

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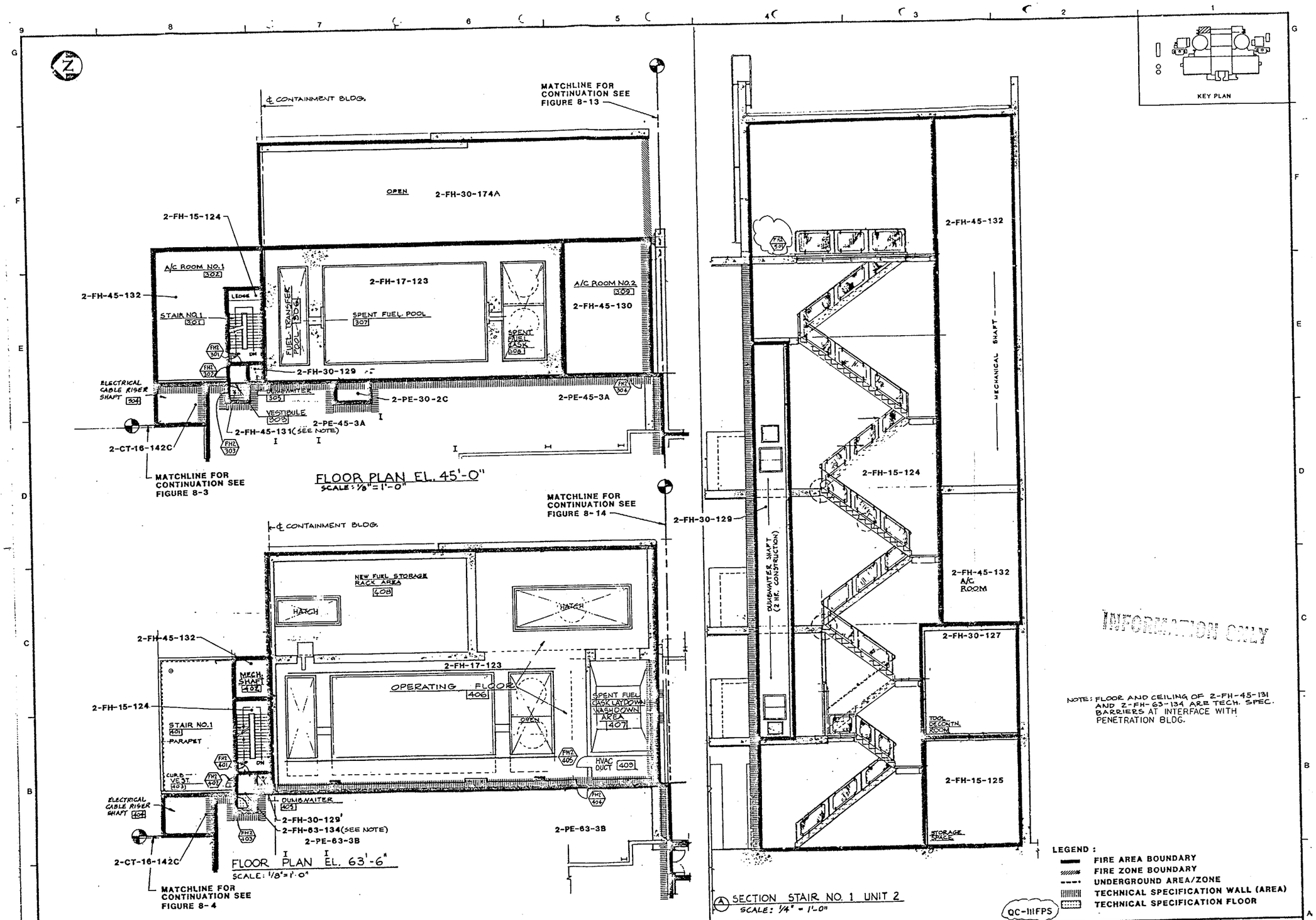


INFORMATION ONLY

NOTE: FLOOR AND CEILING OF 2-FH-45-131 AND 2-FH-63-134 ARE TECH. SPEC. BARRIERS AT INTERFACE WITH PENETRATION BLDG.

LEGEND:
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

QC-111FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
3	1-23-90	AS BUILT BY FLOOR, INC. CHG. PKG. SF-028		S.S.	
2	7-19-88	UPDATED FOR FHA REVISION, INCORP.			
—	—	CHANGE PKG. SF-095		—	—
1	11-20-85	INCORP. CHANGE PKG. SF-019			
0	1-9-84	TECHNICAL SPECIFICATION BARRIERS			

SAN ONOFRE NUCLEAR GENERATING STATION

FUEL HANDLING BLDG
UNIT 2 EL. 45'-0" & 63'-6"
TECH. SPEC. BARRIERS

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

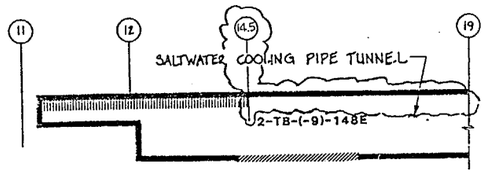
IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-20
REV. 3
SHEET 3 OF 3

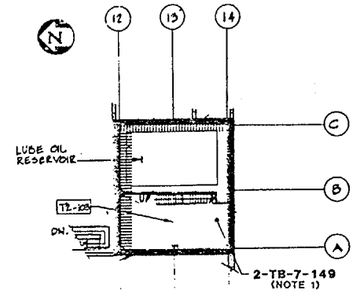
2 (UFHA REV 0 2/90)

83113

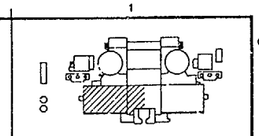
30X

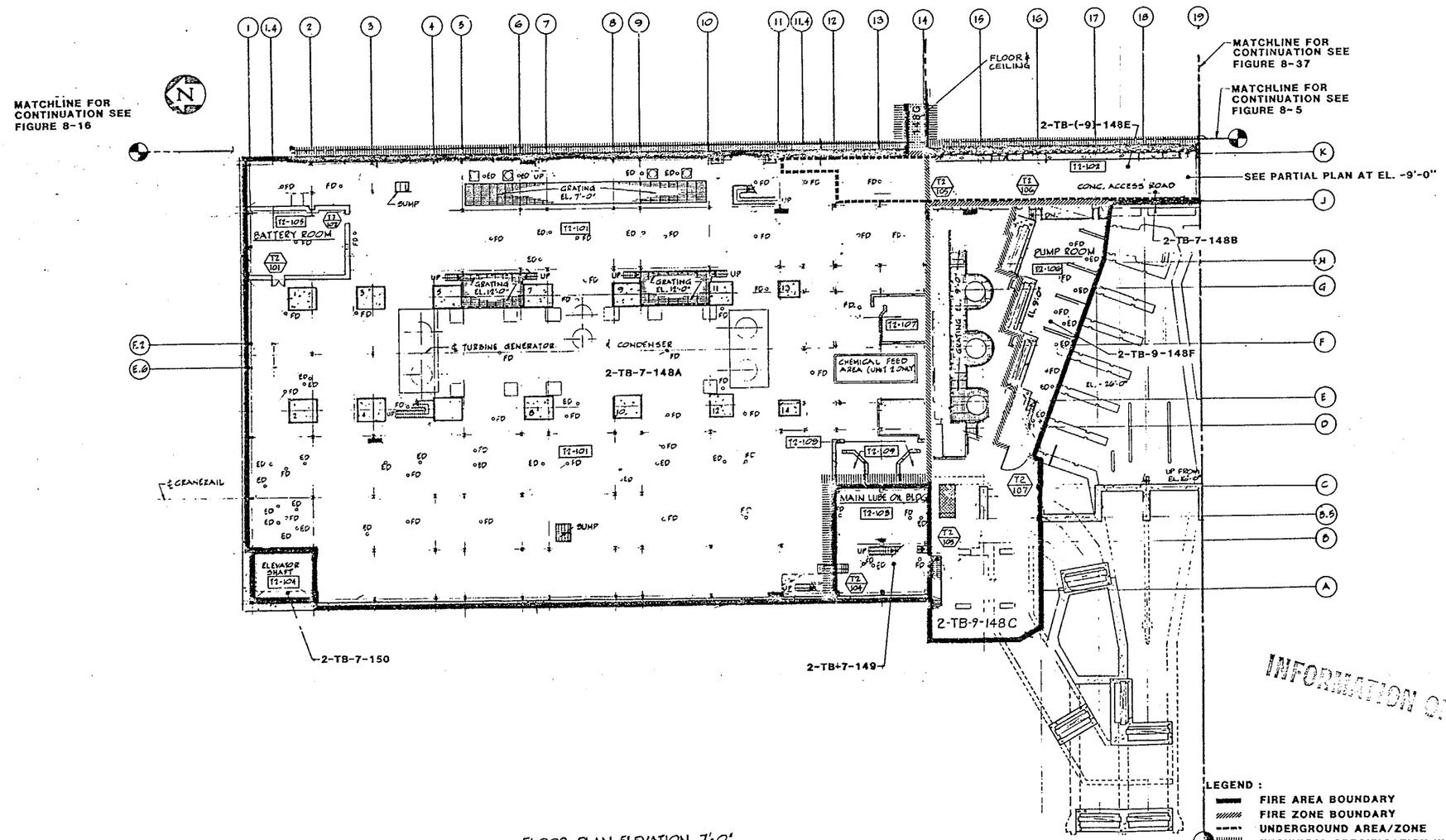


PARTIAL
PLAN @ ELEVATION -9'-0"
N.T.S.



MAIN LUBE OIL BLDG. EL. 23'-0"
PARTIAL PLAN
SCALE: 1/16"=1'-0"





INFORMATION ONLY

FLOOR PLAN ELEVATION 7'-0"
SCALE: 1/16"=1'-0"

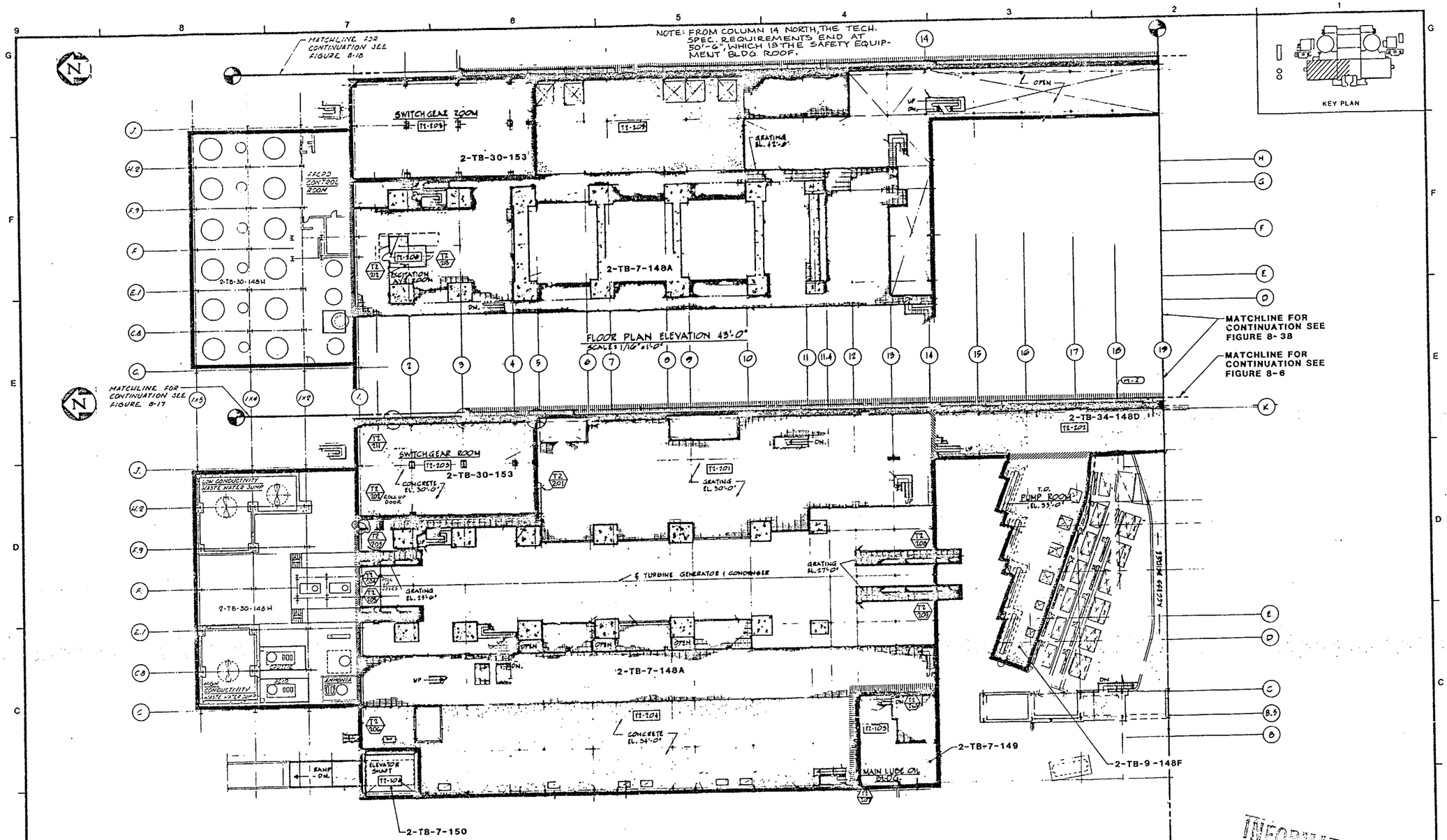
LEGEND :
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

REV.	DATE	DESCRIPTION	DWN.	CHK.	PE
4	12-5-03	INCORPORATED DCN 1	EP	VM	
3	7-8-86	UPDATED FOR FHA REVISION		FD	JTP
2	[illegible]	INCORP. CHG. PKG. SF-018	RR		
1	11-20-84	UPDATED FOR FHA REVISION.		CMA	
0	1-9-84	TECHNICAL SPECIFICATION BARRIERS			

SAN ONOFRE NUCLEAR GENERATING STATION
TURBINE BUILDING
UNIT 2 EL. 7'-0"
TECH. SPEC. BARRIERS
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-21
REV. 4
SHEET 3 OF 4

UFHA REV.A 8/88 83114



FLOOR PLAN ELEVATION 30'-0" & 34'-0"
SCALE: 1/16" = 1'-0"

QC III-FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	
3	1-11-96	INCORP. DCN 1.	JCL		
2	7-8-88	UPDATED FOR FHA REVISION			
1	12-17-84	INCORP. CHANGE PACKAGE (DC-085) AS BUILT BY EWR			
0	1-9-84	TECHNICAL SPECIFICATION BARRIERS			

SAN ONOFRE NUCLEAR GENERATING STATION

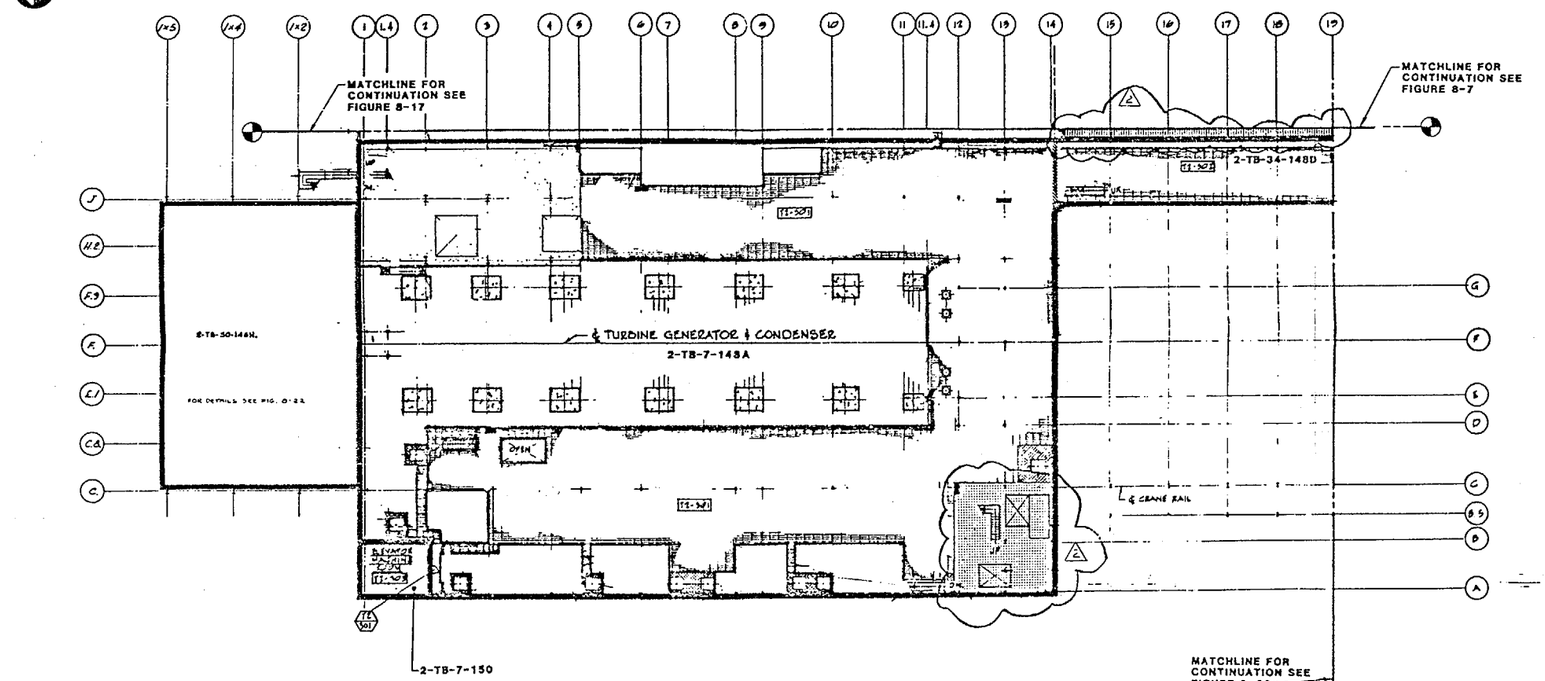
TURBINE BUILDING
UNIT 2 EL. 34'-0" & 43'-0"
TECH. SPEC. BARRIERS

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-22
REV. 3
SHEET 3 OF 3

UFHA REV. 11 2/96 83115



KEY PLAN

INFORMATION ONLY

FLOOR PLAN ELEVATION 56'-0"
SCALE: 1/16" = 1'-0"

LEGEND :
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

REV.	DATE	DESCRIPTION	DWN.	CHK.	APP.
2	7-8-83	UPDATED FOR FHA REVISION			
1	11-17-78	UNDER ENGINEERING PACKAGE (87-069) AS BUILT OF ENTIRE			
0	1-9-84	TECHNICAL SPECIFICATION BARRIERS			

SAN ONOFRE NUCLEAR GENERATING STATION
TURBINE BUILDING
UNIT 2 EL. 56'-0"
TECH. SPEC. BARRIERS
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
IMPELL

SCALE : AS NOTED
JOB NO 0310-017
FIGURE NUMBER 8-23
REV. 2
SHEET 3 OF 3

UPDA REV 2 DW 83116

30X
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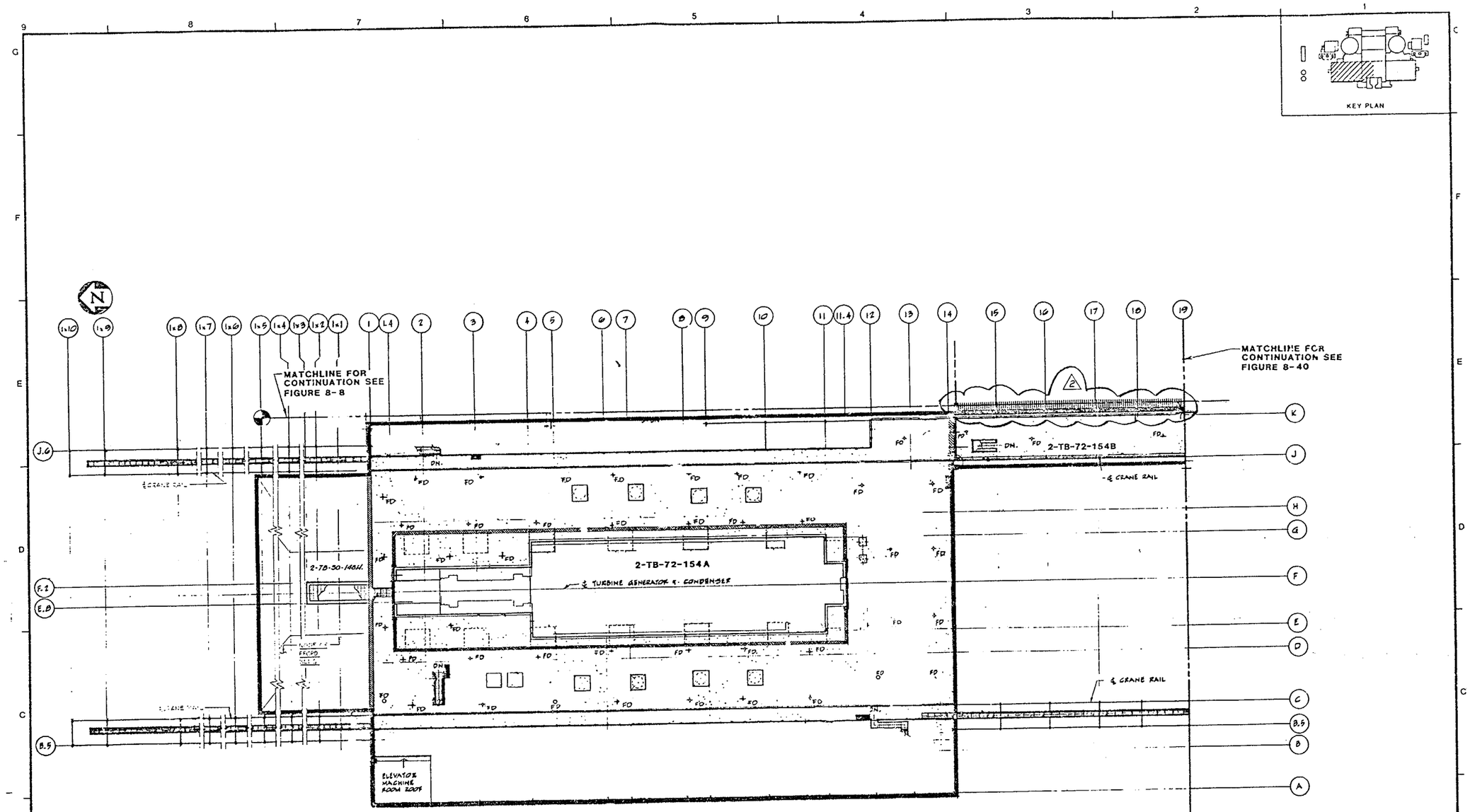
17X
MICROFILMED FROM BEST AVAILABLE COPY



INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

FLOOR PLAN ELEVATION 72'-6"
SCALE: 1/16" = 1'-0"

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
2	7-8-88	UPDATED FOR FHA REVISION	Mcc	FA	
1	12-17-86	NCR/CR-CHANGE PACKAGE (SF-2653) AS A LF SY SWPS	JEKES		
0	1-9-84	TECHNICAL SPECIFICATION			

SAN ONOFRE NUCLEAR GENERATING STATION

TURBINE BUILDING
UNIT 2 EL. 72'-6"
TECH. SPEC. BARRIERS

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-24
REV. 2
SHEET 3 OF 3

UFHA REV.4 8/85 83117

30X
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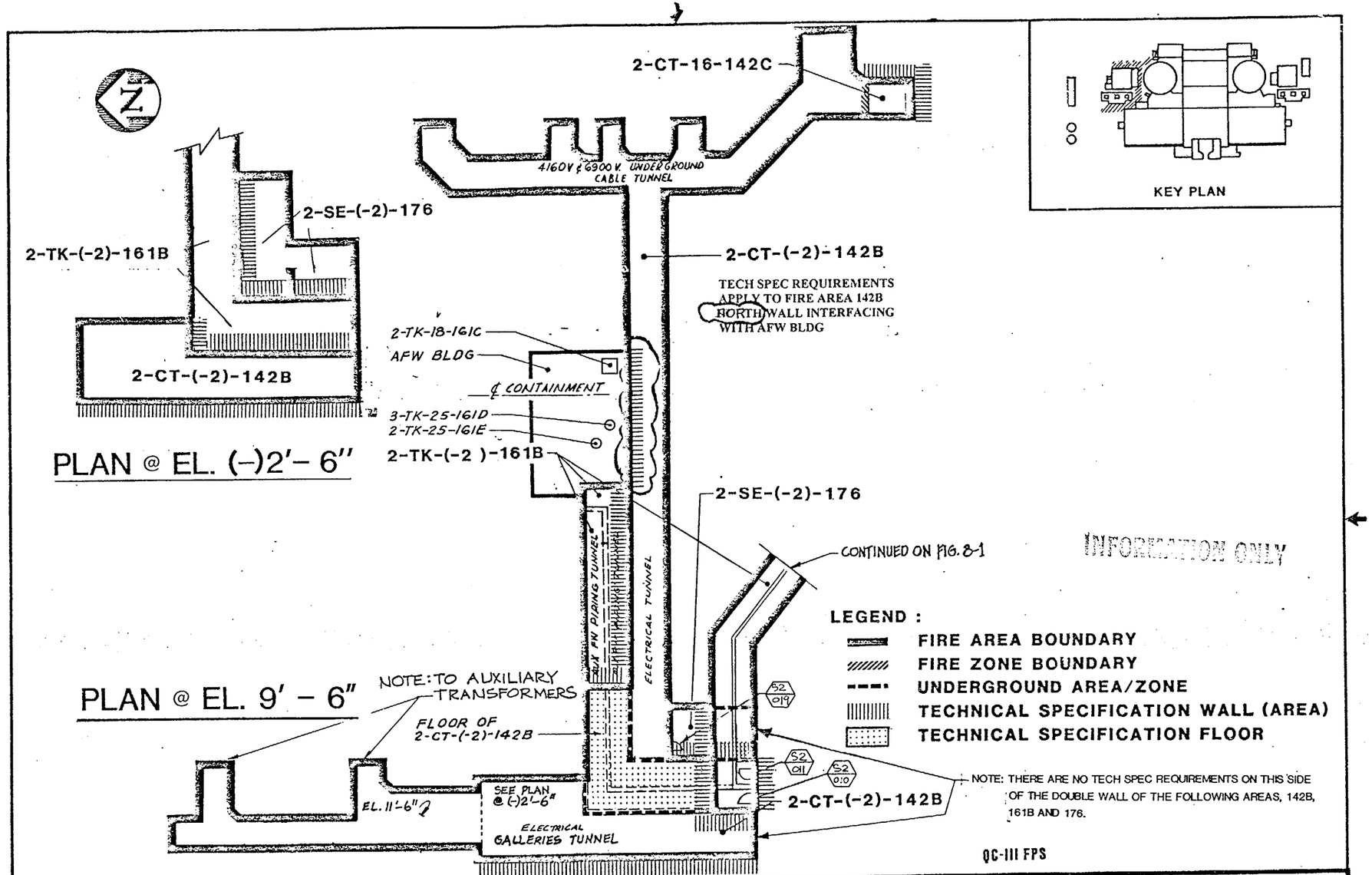

INFORMATION ONLY

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.	P.E.
5	12-4-00	NON-TECHNICAL CHANGE REVISION		EF	DA	
4	1-10-98	INCORP. DCN 1&2		LOD	IGG	
3	1-22-10	AS BUILT BY FLUOR, INC. CHG. PKG. SF-101 & SF-113		S.S.		
2	-08-89	INCORPORATE CHANGE PACKAGES SF - 062 AND SF - 064		RTC		
1	7-15-88	UPDATED FOR FHA REVISION				
0	1-9-82	TECHNICAL SPECIFICATION BARRIERS				

SAN ONOFRE NUCLEAR GENERATING STATION

CABLE TUNNEL AREA
UNIT 2 EL.9'-6"
TECH. SPEC. BARRIERS

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE : N.T.S.
JOB NO. 0310-017
FIGURE NUMBER 8-25 REV. 5
SHEET 3 OF 3

UFHA REV 6 2/90

83118

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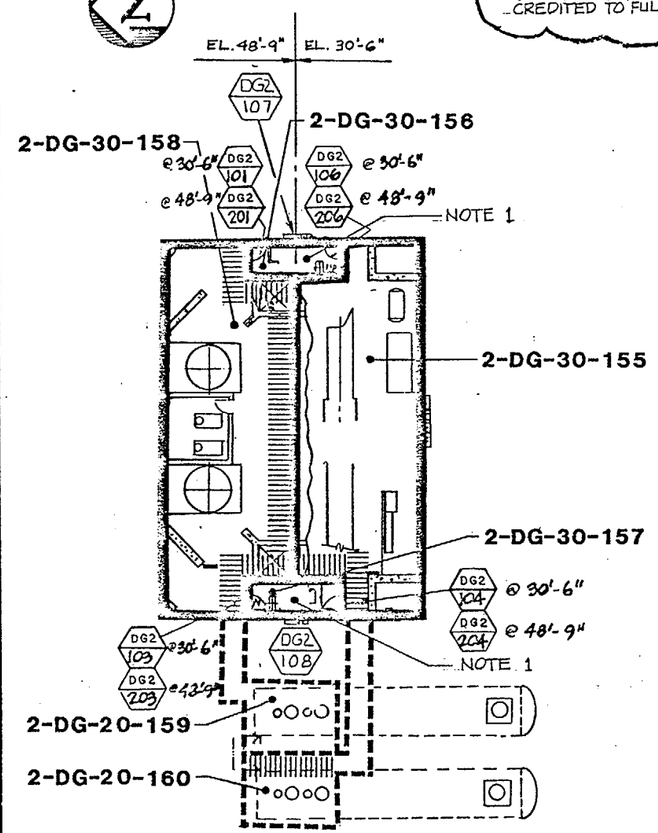
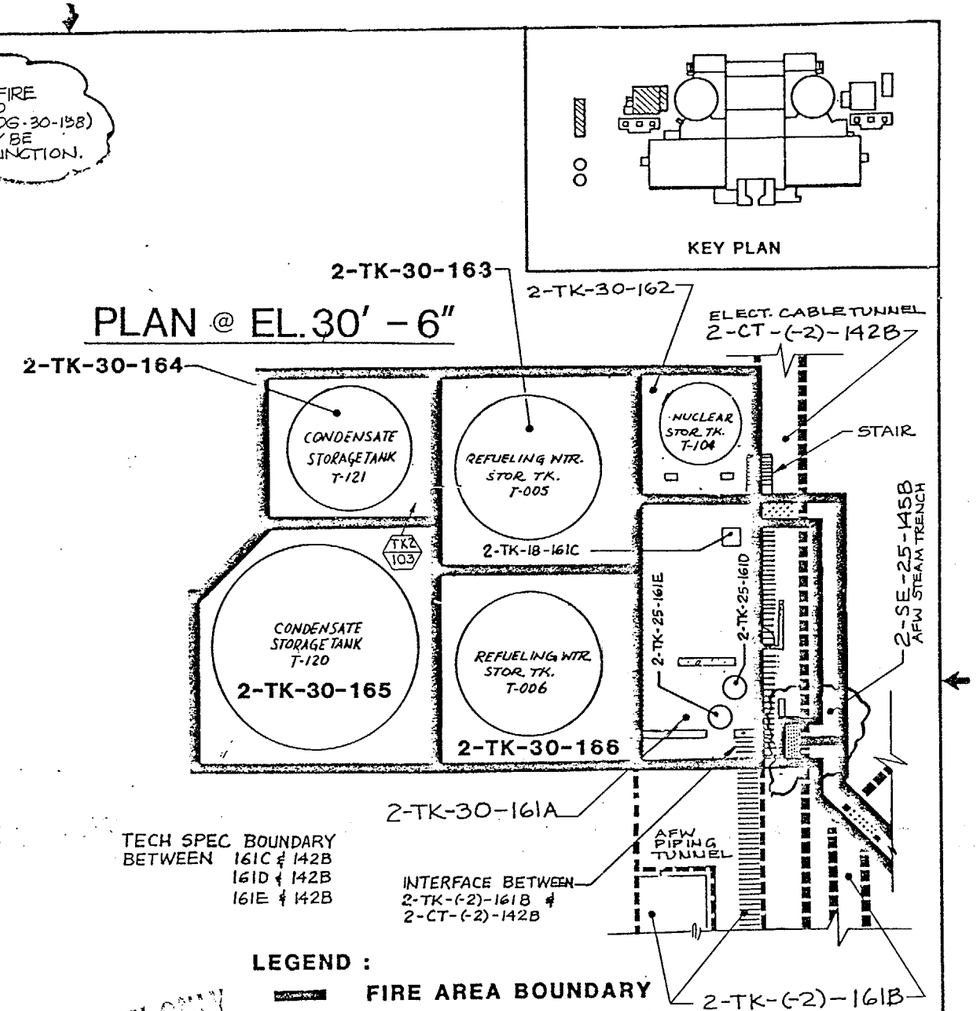
NOTE:
1. EITHER BARRIER SEPARATING FIRE AREA/ZONES 2-DG-30-156 AND 2-DG-30-157 FROM TRAIN A (2-DG-30-158) OR TRAIN B (2-DG-30-155), MAY BE CREDITED TO FULFILL THE LCS FUNCTION.



PLAN @ ELEVATION 30' - 6"

AND ELEVATION 48'-9"



LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- TECHNICAL SPECIFICATION WALL (AREA)
- TECHNICAL SPECIFICATION FLOOR

QC-111FPS

INFORMATION ONLY

REV.	DATE	DESCRIPTION	QA NE	DWN.	CHK.	P.E.
6	12-14-00	INCORPORATED DCN 5 & 6		EF	VM	
5	1-12-98	INC. DCN 2, 3 & 4		NM	IGG	
4	1-10-96	INCORP. DCN 1.		JCL		
3	1-22-90	AS BUILT BY FLUOR; INC. CHG PKG SF-086, ADDED QC		P.d.J		
2	7-15-88	UPDATED FOR FHA REVISION			FBL	
1	11-20-85	INCORP. CHG. PKG. SF-007		RR		
0	1-9-84	TECHNICAL SPECIFICATION BARRIERS			WAZ	

SAN ONOFRE NUCLEAR GENERATING STATION

DIESEL GEN. BLDG. & TANK BLDG.
UNIT 2 EL.30'-6"
TECH. SPEC. BARRIERS

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE : N.T.S.
JOB NO. 0310-017
FIGURE NUMBER 8-26 REV. 6
SHEET 3 OF 4

UFHA REV. 11 2/96

83/19

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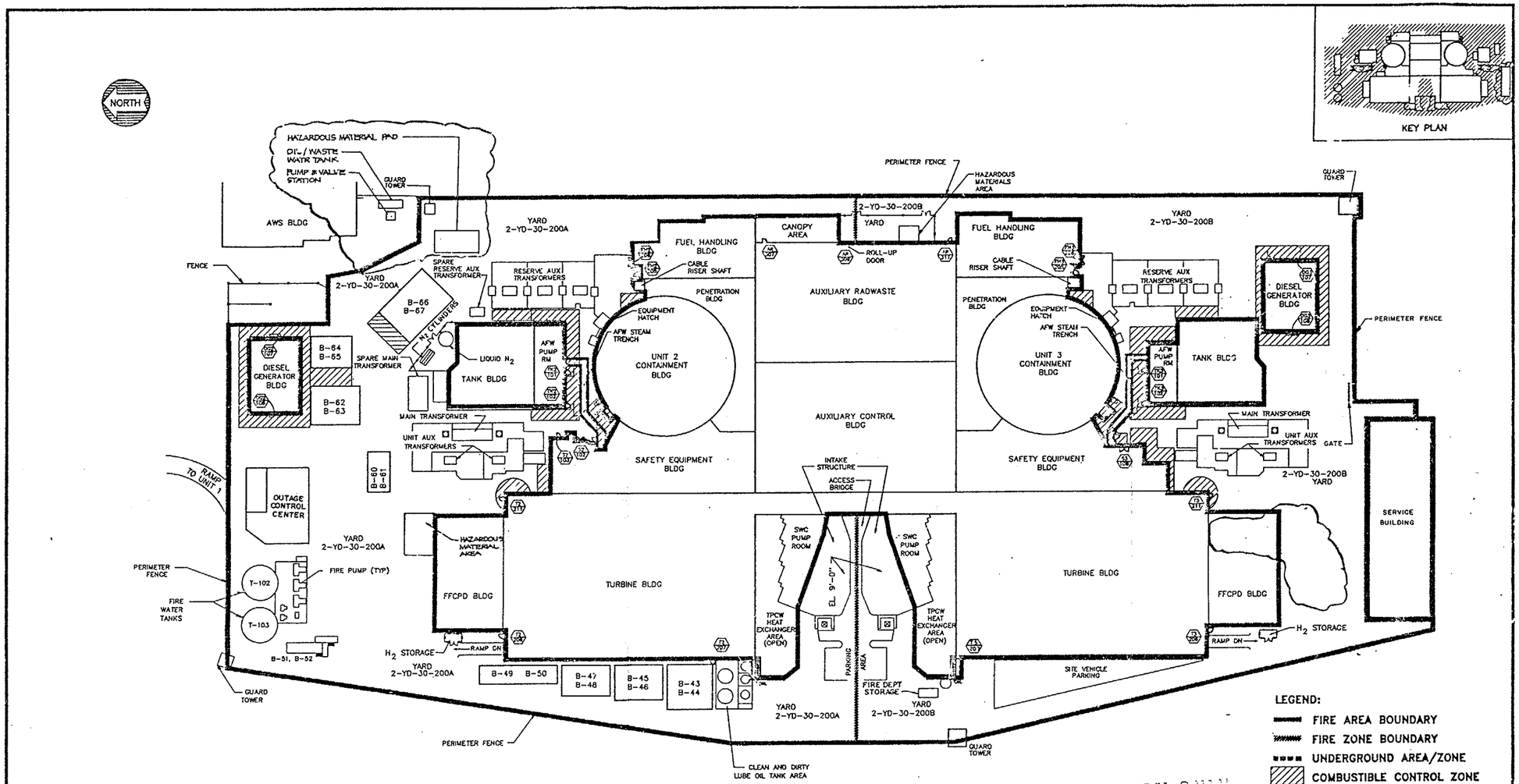

PLAN @ ELEVATION 30'-0"

SCALE: N.T.S.

INFORMATION ONLY

NOTE: EXTERIOR WALLS AND BOUNDARIES ARE NOT TECH. SPEC.. FOR TECH. SPEC. INTERFACES BETWEEN FIRE AREAS SEE APPLICABLE BUILDING DRAWING.

QC-IIIFPS

REV.	DATE	DESCRIPTION	QA	NC	DWN.	CHK.	P.E.
5	1-10-98	INCORP. DCN 6 & 7			EF	IGG	
4	1-8-96	INCORP. DCN'S 4 & 5.			JCL	NSW	
3	12-16-92	INCORP DCN 3, AS BUILT.			IGS	MR	
2	1-6-92	INCORP DCN 1 (DCP 2/3-6846-995C) AND DCN 2 (2/3-6719-005M)			PPC		
1	1-12-90	AS BUILT BY FLUOR; INC. CHG PKG SF-084, SF-107, SF-112, SF-187, SF-188			E.J.J.		
0	7-7-88	TECHNICAL SPECIFICATION BARRIERS					

SAN ONOFRE NUCLEAR GENERATING STATION

YARD
UNITS 2 and 3 EL. 30'-0"
TECH. SPEC. BARRIERS

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

SCALE: AS NOTED
JOB NO. 0310-189
FIGURE NUMBER 8-26A
REV. 5
SHEET 3 OF 3

UFHA REV. 11 2/96 83318

24X

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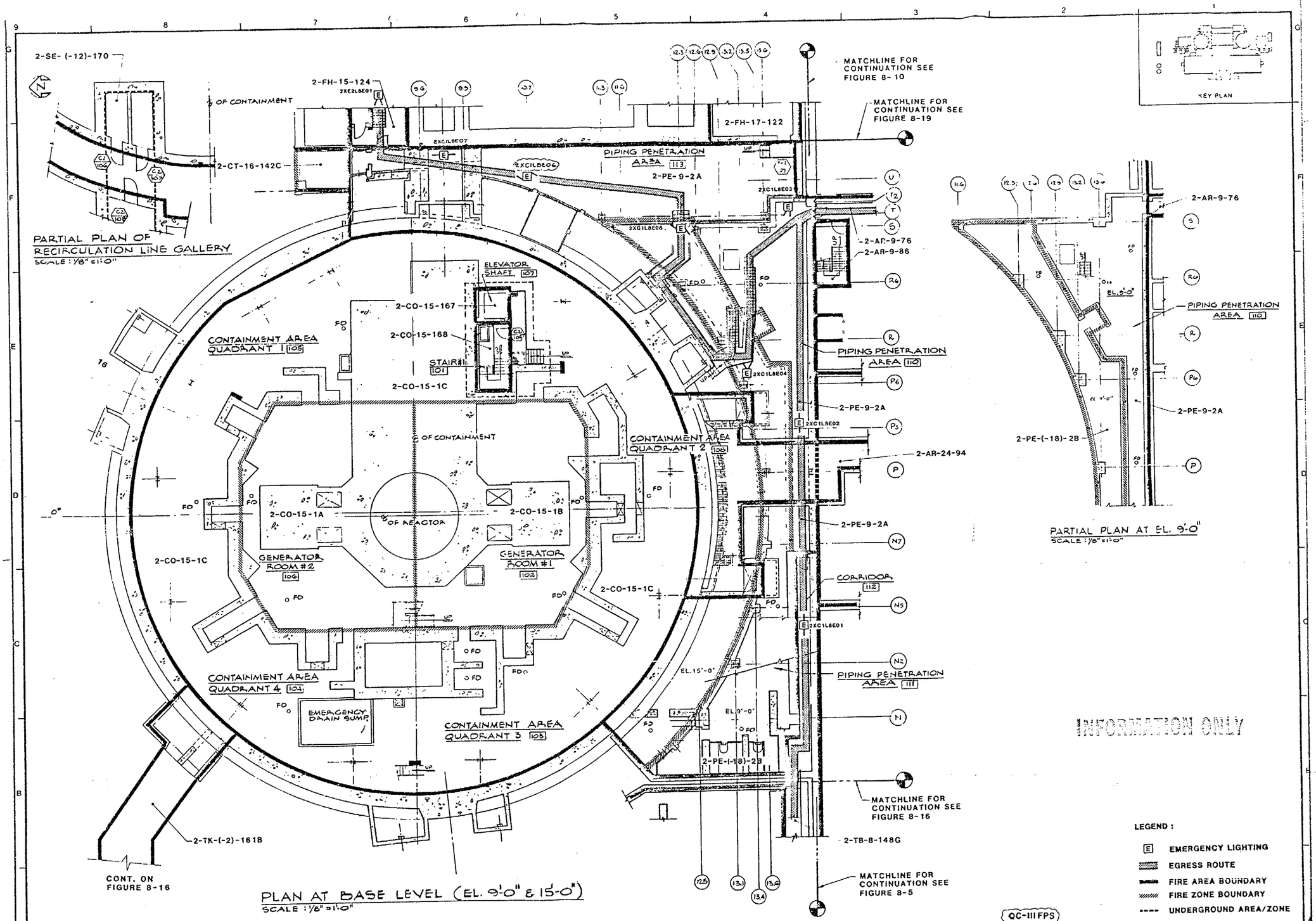
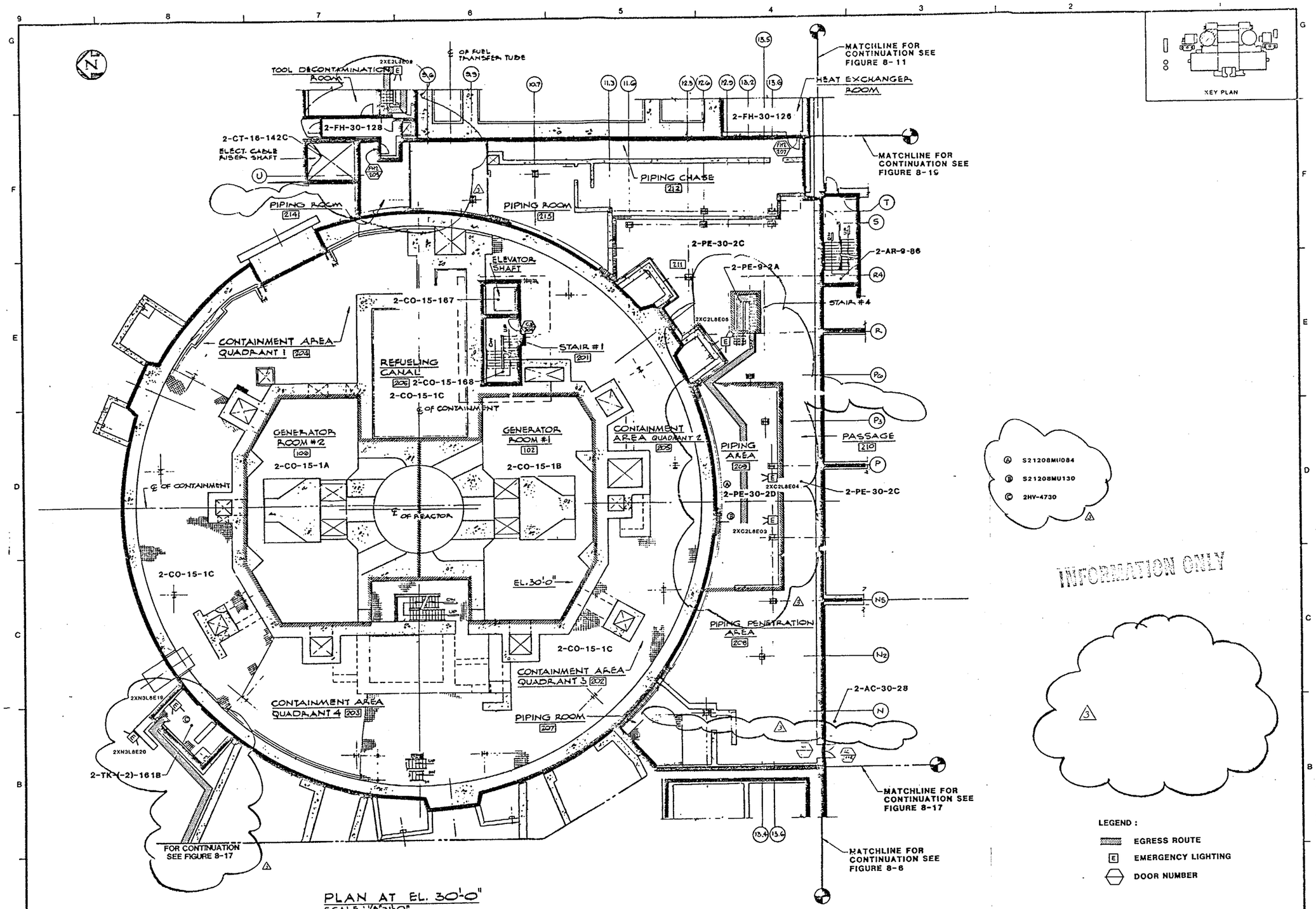
Unit 2
Lighting
Tab


2-SE-(-12)-170
℄ OF CONTAINMENT
2-CT-16-142C
PARTIAL PLAN OF RECIRCULATION LINE GALLERY
SCALE: 1/8" = 1'-0"
2-FH-15-124
2XE2L8E01
2XC1L8E07
2XC1L8E06
2XC1L8E03
2XC1L8E04
2XC1L8E02
2XC1L8E01
PIPING PENETRATION AREA 113
2-PE-9-2A
2-FH-17-122
MATCHLINE FOR CONTINUATION SEE FIGURE 8-10
MATCHLINE FOR CONTINUATION SEE FIGURE 8-19
2-AR-9-76
2-AR-9-86
ELEVATOR SHAFT 107
2-CO-15-167
2-CO-15-168
STAIR #1 101
2-CO-15-1C
CONTAINMENT AREA QUADRANT 1 105
CONTAINMENT AREA QUADRANT 2 106
CONTAINMENT AREA QUADRANT 3 103
CONTAINMENT AREA QUADRANT 4 104
℄ OF CONTAINMENT
℄ OF REACTOR
2-CO-15-1A
2-CO-15-1B
GENERATOR ROOM #2 106
GENERATOR ROOM #1 102
EMERGENCY DRAIN SUMP
PIPING PENETRATION AREA 110
2-AR-24-94
2-PE-9-2A
CORRIDOR 112
PIPING PENETRATION AREA 111
EL. 15'-0"
EL. 9'-0"
2-PE-(-18)-2B
2-TB-8-148G
2-TK-(-2)-161B
CONT. ON FIGURE 8-16
MATCHLINE FOR CONTINUATION SEE FIGURE 8-16
MATCHLINE FOR CONTINUATION SEE FIGURE 8-5
PLAN AT BASE LEVEL (EL. 9'-0" & 15'-0")
SCALE: 1/8" = 1'-0"
PARTIAL PLAN AT EL. 9'-0"
SCALE: 1/8" = 1'-0"
KEY PLAN
INFORMATION ONLY
LEGEND:
E EMERGENCY LIGHTING
EGRESS ROUTE
FIRE AREA BOUNDARY
FIRE ZONE BOUNDARY
UNDERGROUND AREA/ZONE
QC-III FPS
SAN ONOFRE NUCLEAR GENERATING STATION
CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 2 EL. 9'-0" & 15'-0"
8 HOUR EMERGENCY LIGHTING
SOUTHERN CALIFORNIA EDISON COMPANY
IMPELL
SCALE AS NOTED
0310-017
NUMBER 8-1
REV 1
4 OF 4
UFHA REV 8 2/90
83301

30X



PLAN AT EL. 30'-0"
SCALE : 1/8"=1'-0"

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
3	9-22-87	INCORPORATE CHANGE PACKAGE # - 018			
2	11-11-86	INCORP CHG PKG SEQ 22 AS BUILT BY EWPC			
1	11-20-84	UPDATED FOR FHA REVISION.			
0	1-9-84	EMERGENCY LIGHTING	GDL		

SAN ONOFRE NUCLEAR GENERATING STATION

CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 2 EL. 30'-0"
8 HOUR EMERGENCY LIGHTING

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

UHA REV. 4/84 83/3G

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-2
REV. 3
SHEET 4 OF 4

30X
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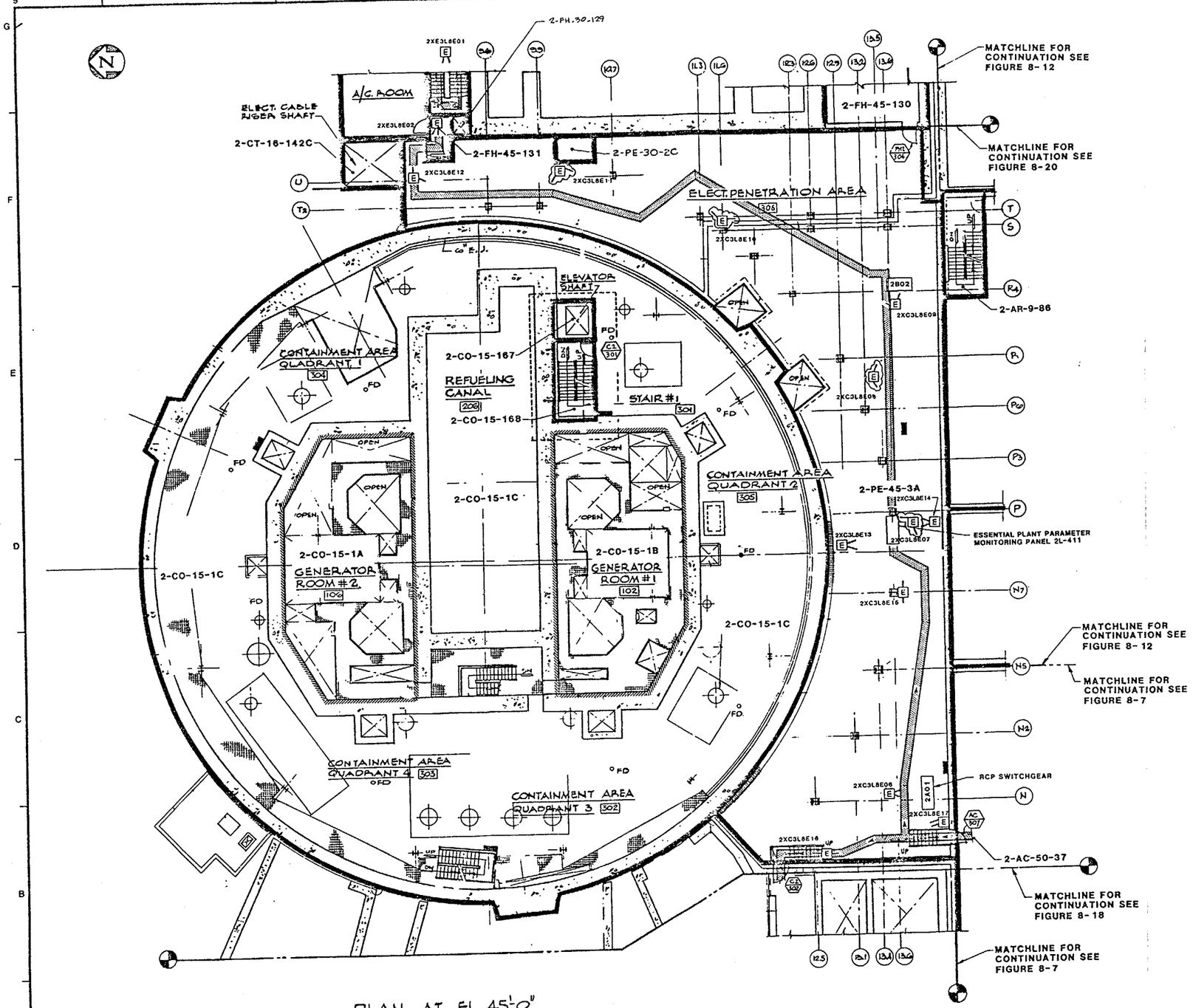
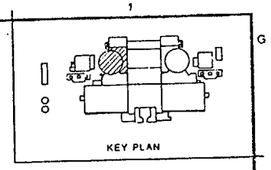


PLAN AT EL. 45'-0"
SCALE : 1/8" = 1'-0"



INFORMATION ONLY

LEGEND :
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- E EMERGENCY LIGHTING
- EGRESS ROUTE
- DOOR NUMBER

QC III-FPS

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.	P.E.
6	1-12-96	INCORP. DCN 1.		JCL	KLL	
5	1/17/90	NO BUILT UP FOR CHG. PER CHANGE PACKAGE NO. SMS-SE-1/93-322	307	SSS		
4	1-29-91	INCORPORATE CHANGE PACKAGE SF - 063		RTL		
3	[illegible]	INCORPORATE CHANGE PACKAGE SF - 018		CCL		
2	11-13-90	INCORP. CHG. PKG. SF-026		AR		
1	11-20-89	UPDATED FOR FHA REVISION		CCL		
0	1-9-84	EMERGENCY LIGHTING		CCL		

SAN ONOFRE NUCLEAR GENERATING STATION

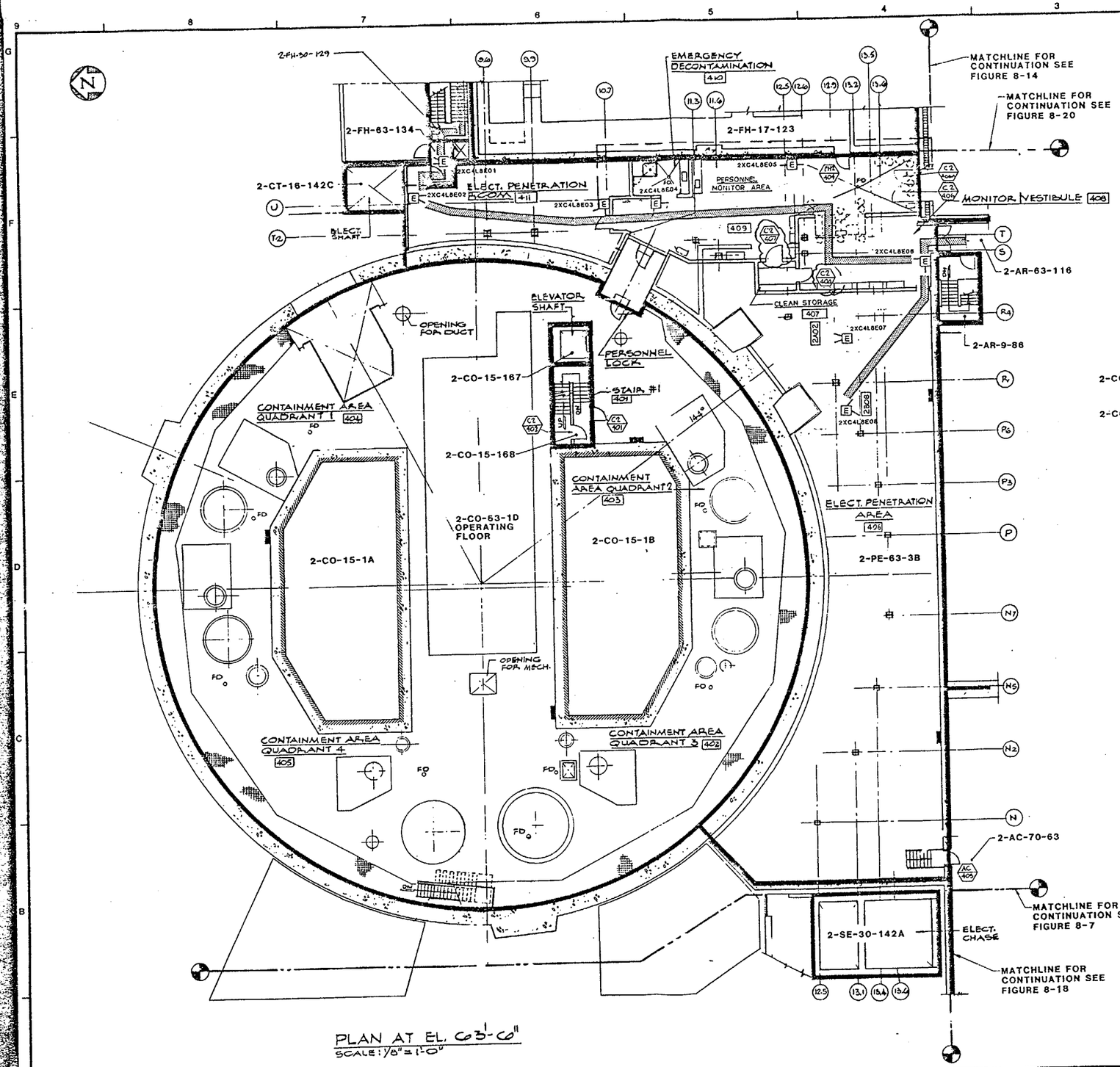
CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 2 EL. 45'-0"
8 HOUR EMERGENCY LIGHTING

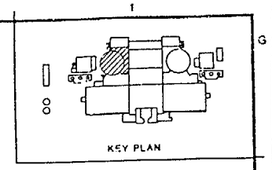
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

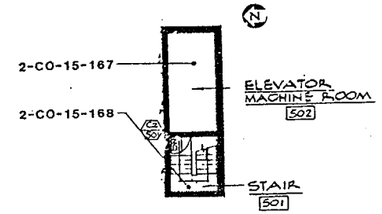
IMPELL CORPORATION

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-3
REV. 6
SHEET 4 OF 4

2 UFHA REV. 11 2/96 83/37







INFORMATION ONLY

LEGEND:

- E EMERGENCY LIGHTING
- EGRESS ROUTE
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC III-FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
4	12-14-00	INCORPORATED DCN 3	EP	VM	
3	1-12-96	INCORP. DCN 2.	JCM	KEL	
2	4-21-94	INCORP. DCN 1.	MML		
1	1-11-91	AS BUILT BY FLUORONIC CHAPEL AR-070-1	JTC		
0	4-22-87				

SAN ONOFRE NUCLEAR GENERATING STATION

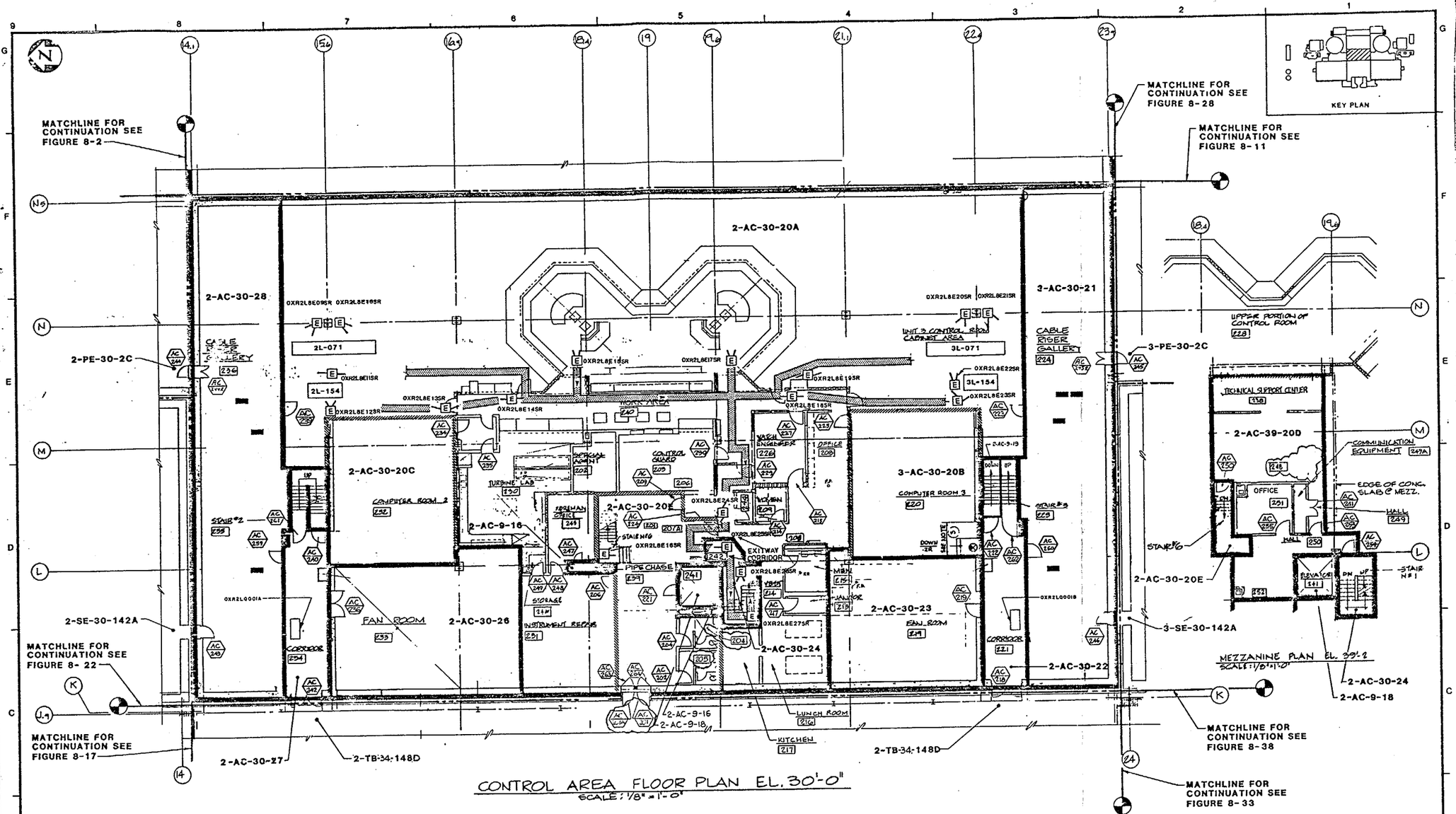
CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 2 EL. 63'-6"
8 HOUR EMERGENCY LIGHTING

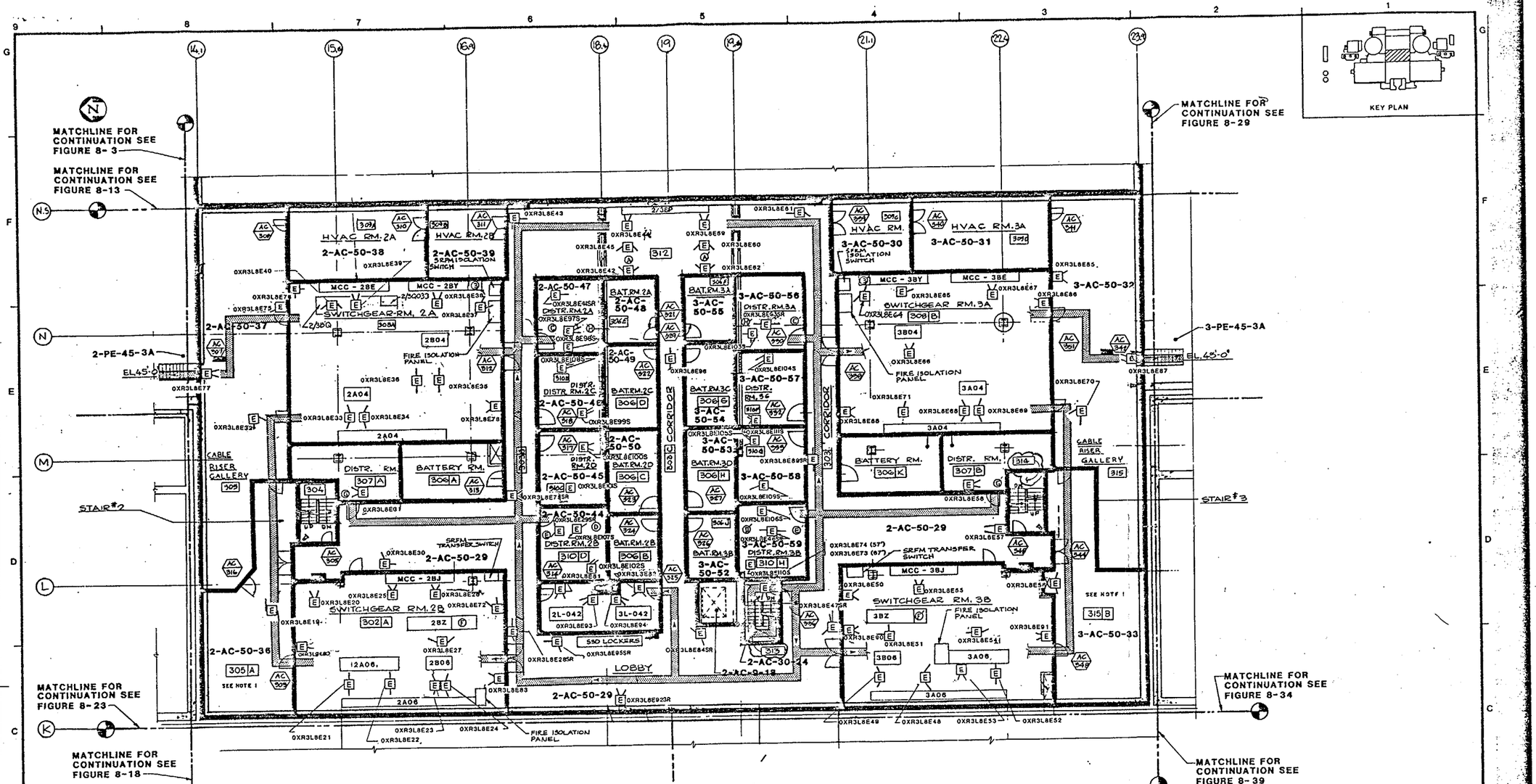
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-4
REV. 4
SHEET 4 OF 4

UFHA REV. 11 2/96 83302


MATCHLINE FOR CONTINUATION SEE FIGURE 8-2
MATCHLINE FOR CONTINUATION SEE FIGURE 8-28
MATCHLINE FOR CONTINUATION SEE FIGURE 8-11
MATCHLINE FOR CONTINUATION SEE FIGURE 8-22
MATCHLINE FOR CONTINUATION SEE FIGURE 8-17
MATCHLINE FOR CONTINUATION SEE FIGURE 8-38
MATCHLINE FOR CONTINUATION SEE FIGURE 8-33
KEY PLAN
2-AC-30-20A
2-AC-30-28
2-AC-30-20C
2-AC-30-20E
2-AC-30-26
2-AC-30-23
2-AC-30-24
2-AC-30-22
2-AC-30-27
3-AC-30-21
3-AC-30-20B
2-AC-39-20D
2-PE-30-2C
3-PE-30-2C
2-SE-30-142A
3-SE-30-142A
2-TB-34-148D
2-AC-9-16
2-AC-9-18
2-AC-9-19
CONTROL AREA FLOOR PLAN EL. 30'-0"
SCALE: 1/8" = 1'-0"
MEZZANINE PLAN EL. 39'-2
SCALE: 1/8" = 1'-0"
NOTE: CONTROL ROOM AREA ESSENTIAL LIGHTING IS DIESEL GENERATOR BACKED.
LEGEND:
DOOR NUMBER
FIRE AREA BOUNDARY
FIRE ZONE BOUNDARY
UNDERGROUND AREA/ZONE
EMERGENCY LIGHTING
EGRESS ROUTE
INFORMATION ONLY
QC III-FPS
SAN ONOFRE NUCLEAR GENERATING STATION
AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 30'-0"
8 HOUR EMERGENCY LIGHTING
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
IMPELL
SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-6
REV. 11
SHEET 4 OF 4
2 UFHA REV. 11 2/96
83138



CONTROL AREA - FLOOR PLAN - EL. 50'-0"

1/8" = 1'-0"

(A)	MCC - 2BX
(B)	2Q039
(C)	2D1P1
(D)	2D2
(E)	2D2P1
(F)	2Q041
(G)	2D5P4
(H)	2D1

(A)	MCC - 3BX
(B)	3Q039
(C)	3D1P1
(D)	3D2
(E)	3D2P1
(F)	3Q041
(G)	3D5P4
(H)	3D1

NOTE:

1. REFERENCES TO THIS ROOM NUMBER ON CERTAIN ELECTRICAL DRAWINGS MAY NOT DESIGNATE THE "A" OR "B", DESIGNATOR ADDED TO CLARIFY FIRE BARRIER/ PENETRATION SEAL DRAWINGS.

LEGEND :

- DOOR NUMBER
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- EGRESS ROUTE
- [E] EMERGENCY LIGHTING

INFORMATION ONLY

QUALITY CLASS III FPS

REV.	DATE	DESCRIPTION	QA	DWN.	JHK.	P.E.
7	3-4-94	INCORP. DCN 2, AS BUILT.		JD		
6	12-13-92	INCORP. DCN 1, AS BUILT.		LGS		
5	2-2-90	AS BUILT BY PLUMER, INC. CHG. PROJ. OF 299	DW	J.C.		
10	12-7-00	INCORPORATED DCN 6		BP		
9	1-10-98	INCORPORATED DCN 5		BP		
8	1-12-96	INCORP. DCNS 3 & 4.		JCL		
0	1-9-84	EMERGENCY LIGHTING		CDL		

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 50'-0"
8 HOUR EMERGENCY LIGHTING

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE : AS NOTED

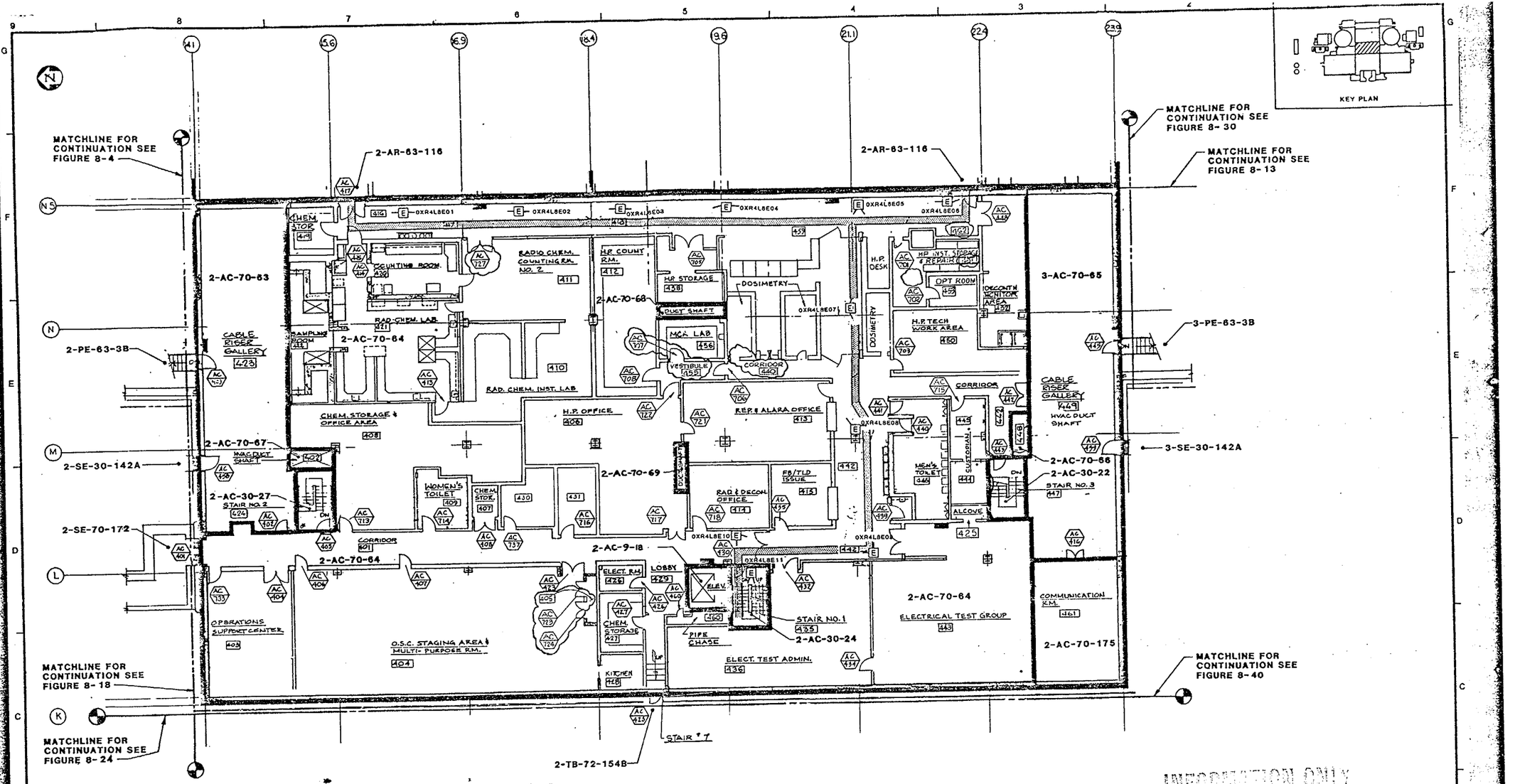
JOB NO. 0310-017

FIGURE NUMBER 8-7 REV. 10

SHEET 4 OF 4

UFHA REV. 1 2/96

83139



CONTROL AREA FLOOR PLAN EL. 70'-0"

SCALE : N.T.S.

INFORMATION ONLY

LEGEND :

- [E] EMERGENCY LIGHTING
- EGRESS ROUTE
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC III-FPS

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.	APP.
7	10-5-00	INCORPORATED DCN'S 6 THRU 10		EP	VM	
6	1-10-98	INCORP. DCN 5		EP	VM	
5	1-12-96	INCORP. DCNS 3 & 4		JGM	DGL	
4	6-19-94	INCORP. DCN 2	—	[illegible]	[illegible]	
3	3-7-94	INCORPORATED DCN 1, AS BUILT.	—	JD	[illegible]	
2	1-12-93	AS BUILT BY FLUOR INC. CHG. PKG. SF-065, SF-092		PJJ	[illegible]	
1	1-28-91	INCORPORATE CHANGE PACKAGE SF-062		[illegible]	[illegible]	
0	9-26-89	EMERGENCY LIGHTING		[illegible]	[illegible]	

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL. 70'-0
8 HOUR EMERGENCY LIGHTING

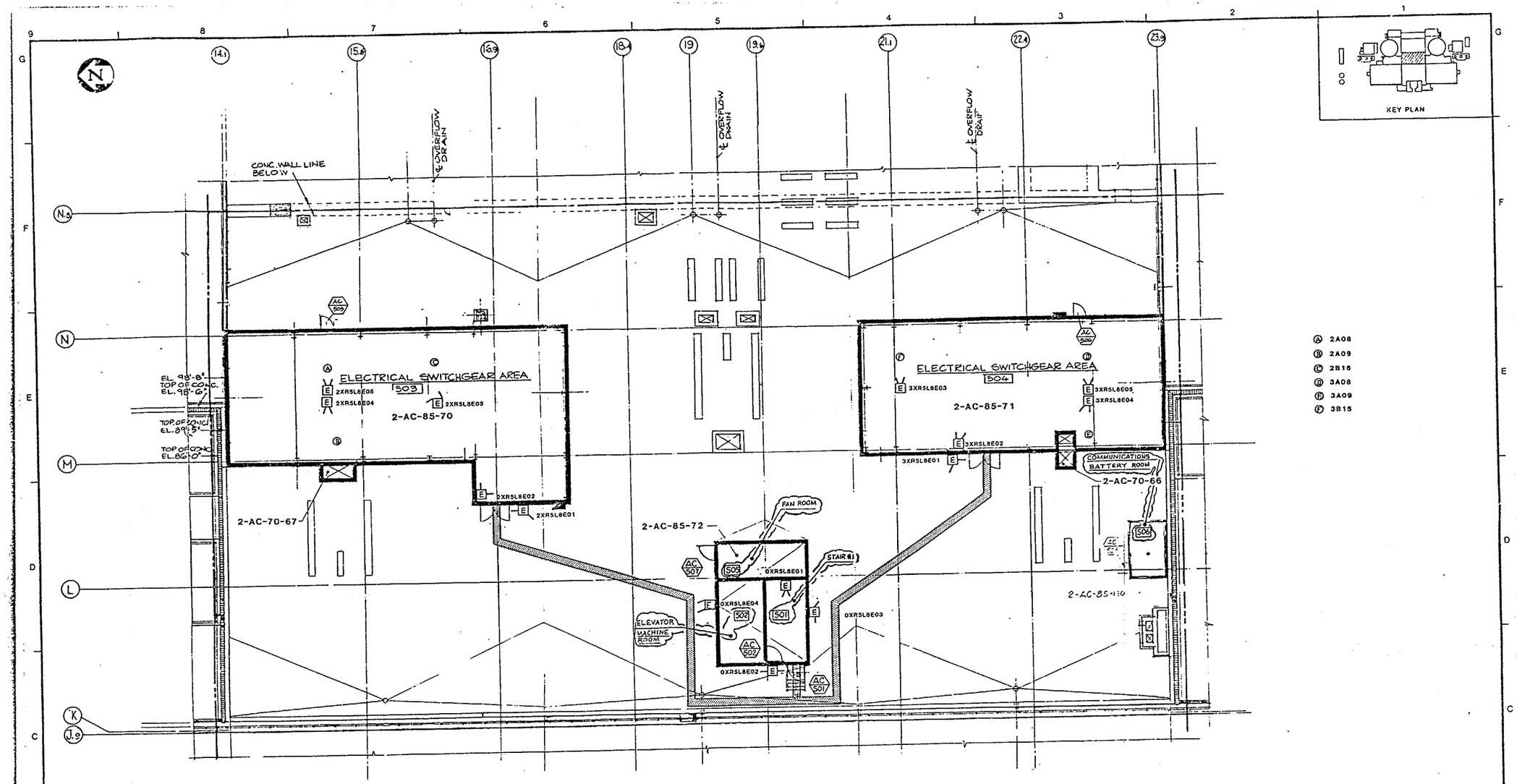
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-8
REV. 7
SHEET 4 OF 4

UFHA REV. 11 2/96

83303



CONTROL AREA - ROOF PLAN EL. 85'-0"

SCALE: 1/8" = 1'-0"

INFORMATION ONLY

LEGEND:

- [E] EMERGENCY LIGHTING
- EGRESS ROUTE
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

Q.C. III-FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
2	1-10-98	INC. DCN 2	NM	VM	
1	1-12-96	INCORP. DCN 1	JCR		
0	[illegible]	EMERGENCY LIGHTING	[illegible]	[illegible]	[illegible]

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (CONTROL AREA)
UNIT 2 & 3 EL 85'-0"
8 HOUR EMERGENCY LIGHTING

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED

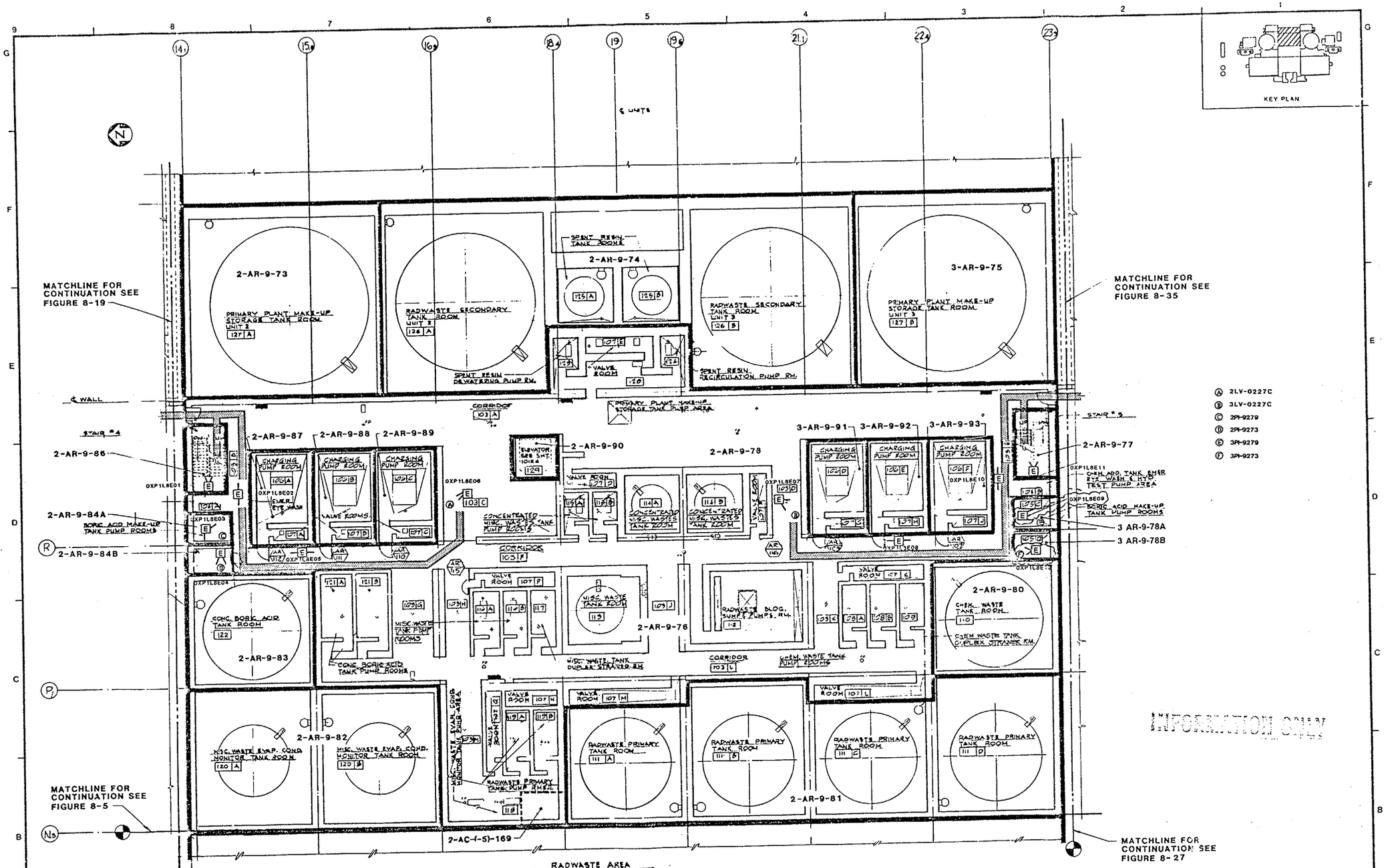
JOB NO. 0310-017

FIGURE NUMBER 8-9 REV. 2

SHEET 4 OF 4

2 UFHA REV. 11 2/96 83304

30X
MICROFILMED FROM



INFORMATION ONLY

LEGEND :

- [E] EMERGENCY LIGHTING
- EGRESS ROUTE
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

Q.C. III-FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
1	1-12-96	INCORP. DCN 1	JCM		
0	11/21/88	EMERGENCY LIGHTING			

SAN ONOFRE NUCLEAR GENERATING STATION

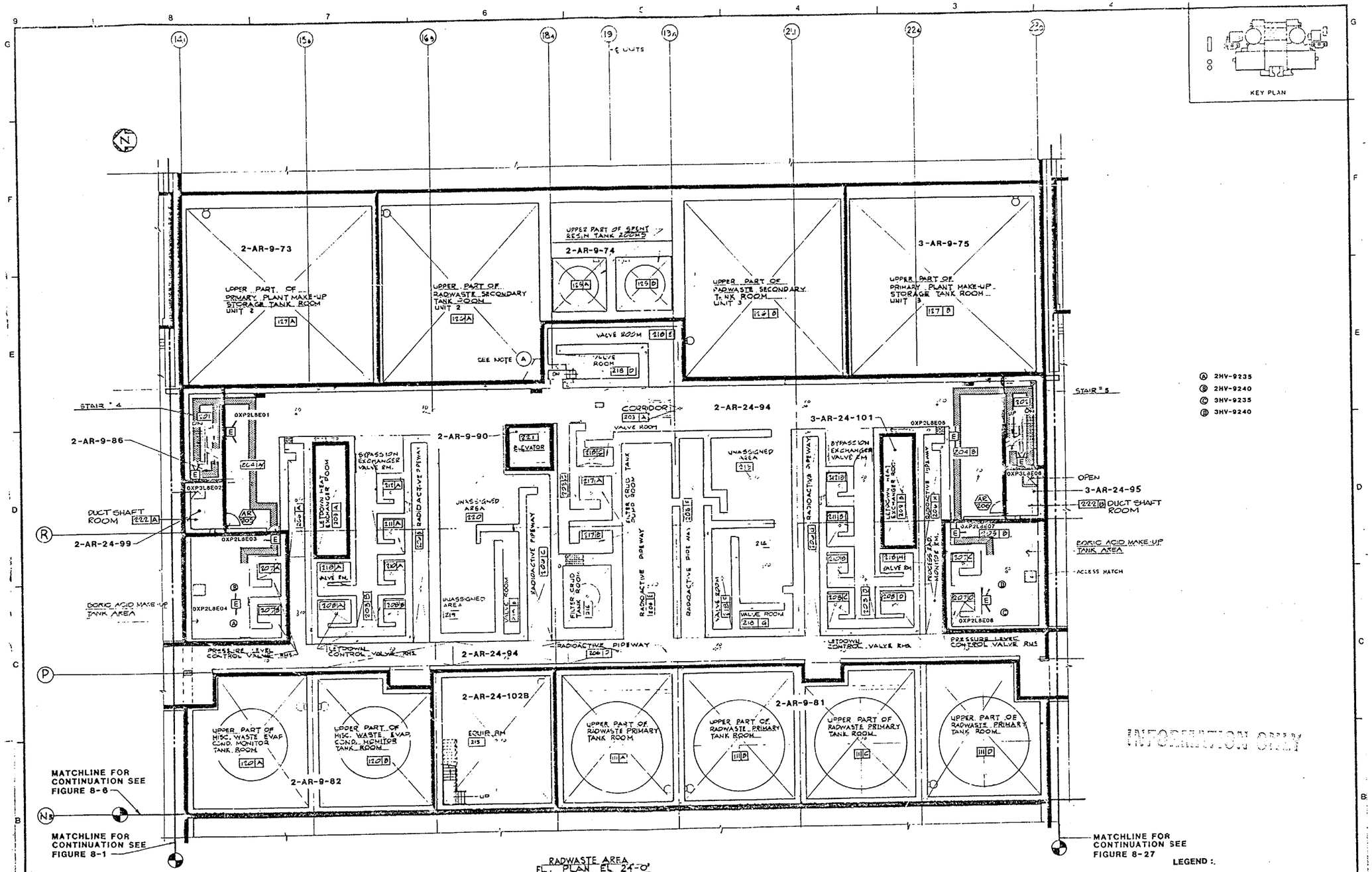
AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 9'-0"
8 HOUR EMERGENCY LIGHTING

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-10
REV 1
SHEET 4 OF 4

2 UFHA REV. 11 2/96 83305



LEGEND :

- [E] EMERGENCY LIGHTING
- EGRESS ROUTE
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

REV	DATE	DESCRIPTION	DWN.	CHK.	PR.
0	4-22-82	EMERGENCY LIGHTING			

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 24'-0"
8 HOUR EMERGENCY LIGHTING

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-11
REV. 0
SHEET 4 OF 4

UPA REV.4 8/80 83306

30X
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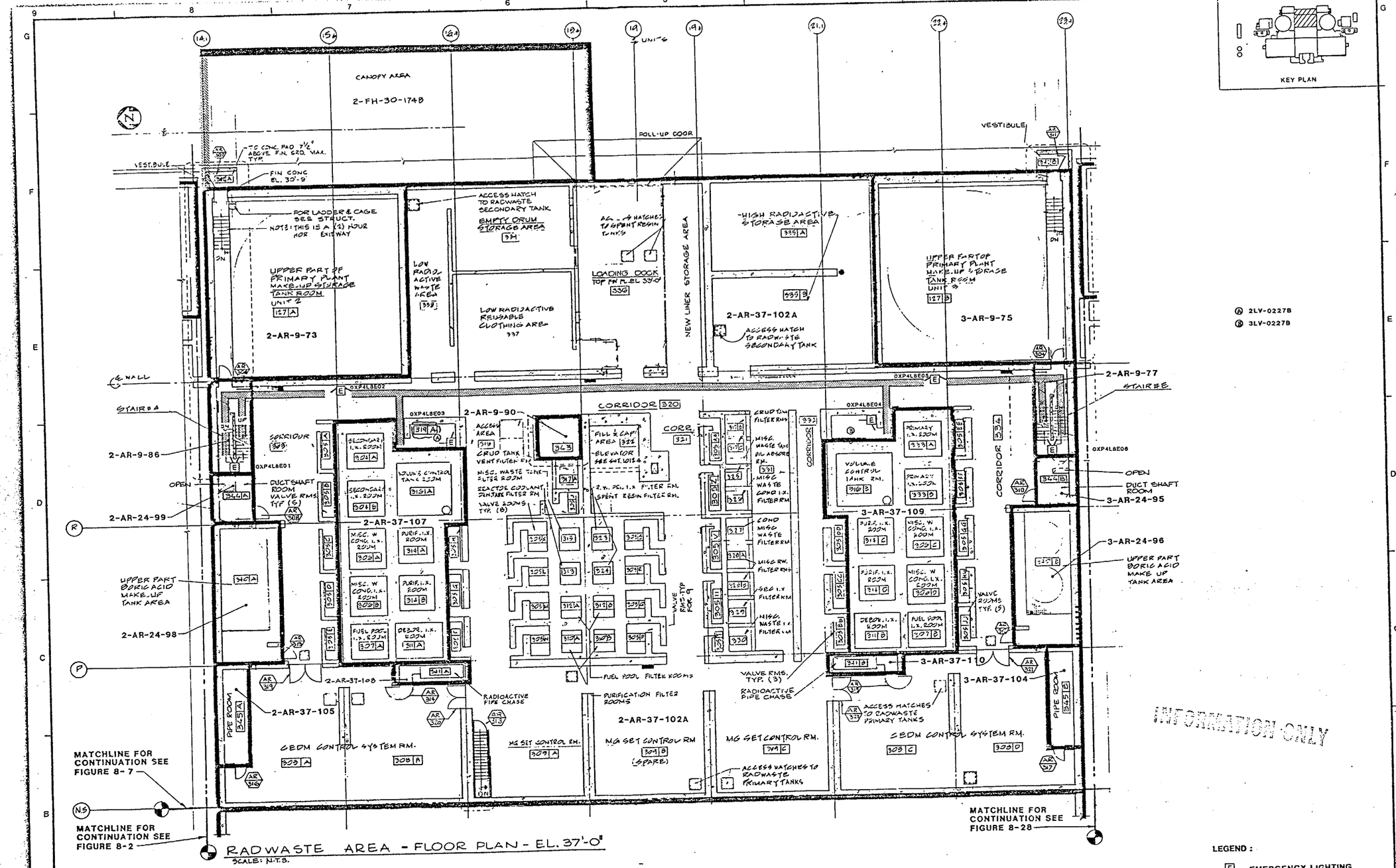

RADWASTE AREA - FLOOR PLAN - EL. 37'-0"

SCALE: N.T.S.

LEGEND:

- [E] EMERGENCY LIGHTING
- EGRESS ROUTE
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC-IIIFPS

REV.	DATE	DESCRIPTION	DRN.	CHK.	PE.
2	1-10-90	INC. DCN 1	NM	VW	
1	1-17-89	AS BUILT BY PLUS INC. CHG. PER SK-1038 AND SK-1039			
0	4-22-86	EMERGENCY LIGHTING			

SAN ONOFRE NUCLEAR GENERATING STATION

AUXILIARY BLDG (RADWASTE AREA) UNIT 2 & 3 EL. 37'-0" 8 HOUR EMERGENCY LIGHTING

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE: AS NOTED

JOB NO. 0310-017

FIGURE NUMBER 8-12 REV. 2

SHEET 4 OF 4

2 UFHA REV 8 2/90 83307 1

30X

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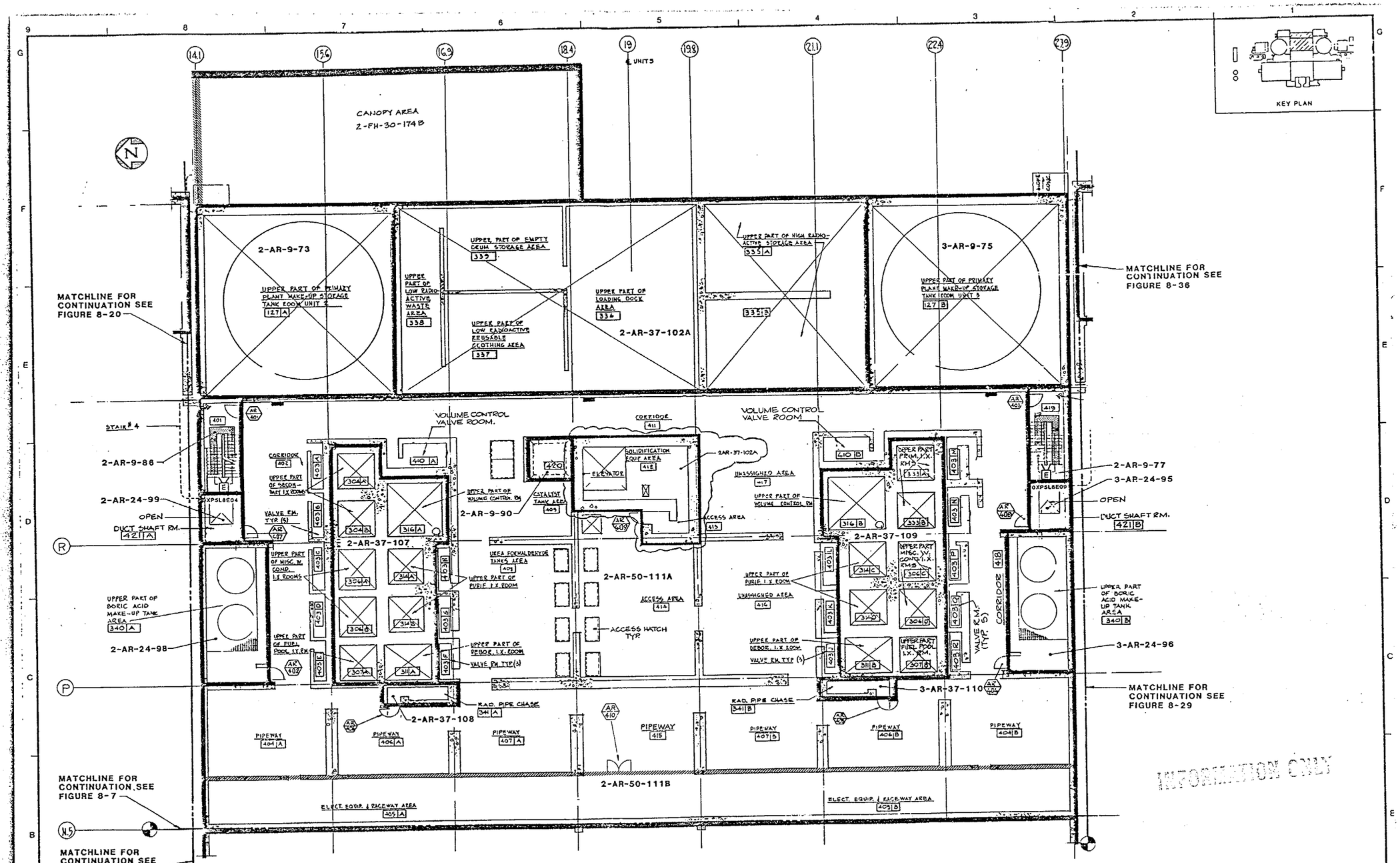

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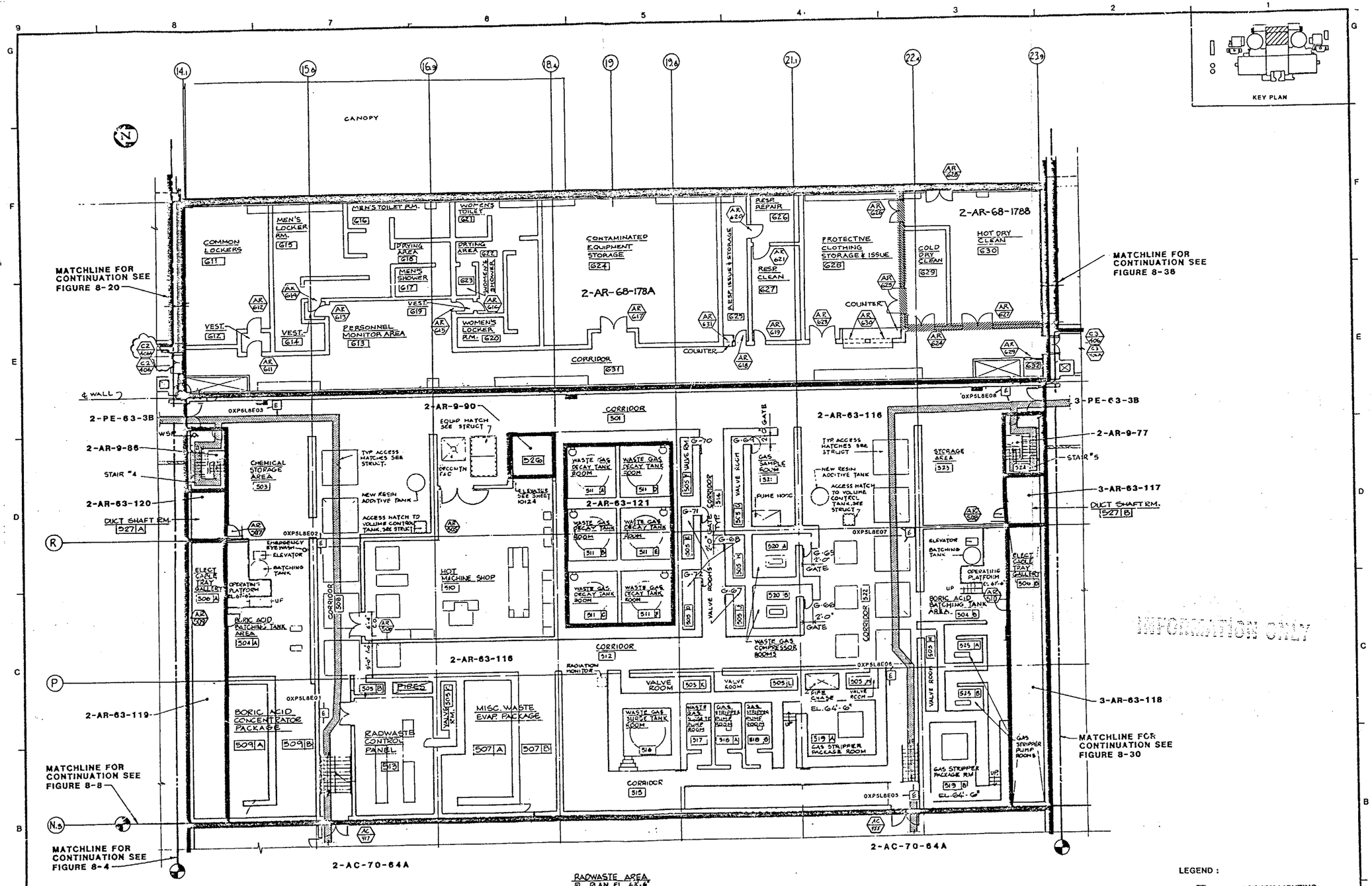


LEGEND :

- [E] EMERGENCY LIGHTING
- EGRESS ROUTE
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC III-FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
2	6-12-96	INCORP. DCN L	JCM		
1	1-28-81	INCORPORATE CHANGE PACKAGE BF - 1448	RTC		
0	11-26-97	EMERGENCY LIGHTING			

SAN ONOFRE NUCLEAR GENERATING STATION

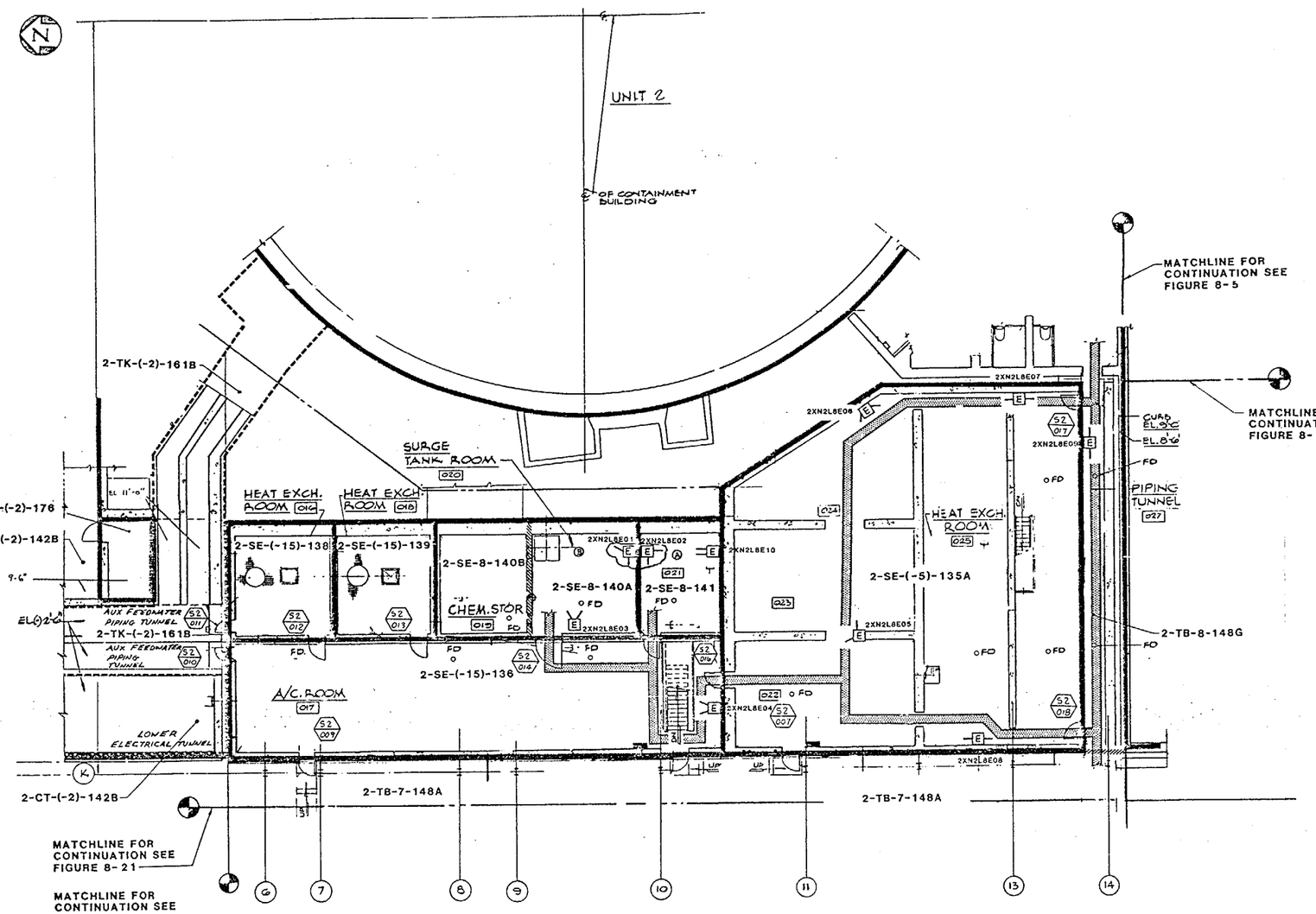
AUXILIARY BLDG (RADWASTE AREA)
UNIT 2 & 3 EL. 63'-6"
8 HOUR EMERGENCY LIGHTING

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE :	AS NOTED
JOB NO.	0310-017
FIGURE NUMBER	8-14
REV.	2
SHEET	4 OF 4

2 UFHA REV. 11 2/96 83309



INFORMATION ONLY

PLAN AT ELEVATION 8'-0"

SCALE : 1/8" = 1'-0"

LEGEND :

- [E] EMERGENCY LIGHTING
- EGRESS ROUTE
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- ---- UNDERGROUND AREA/ZONE

QC-III FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
2	3-4-94	INCORPORATED DCN 1, AS BUILT.			
1	1-17-91	INCORPORATE CHANGE PACKAGES SF-062 AND SF-064			
0	6-21-88	EMERGENCY LIGHTING			

SAN ONOFRE NUCLEAR GENERATING STATION

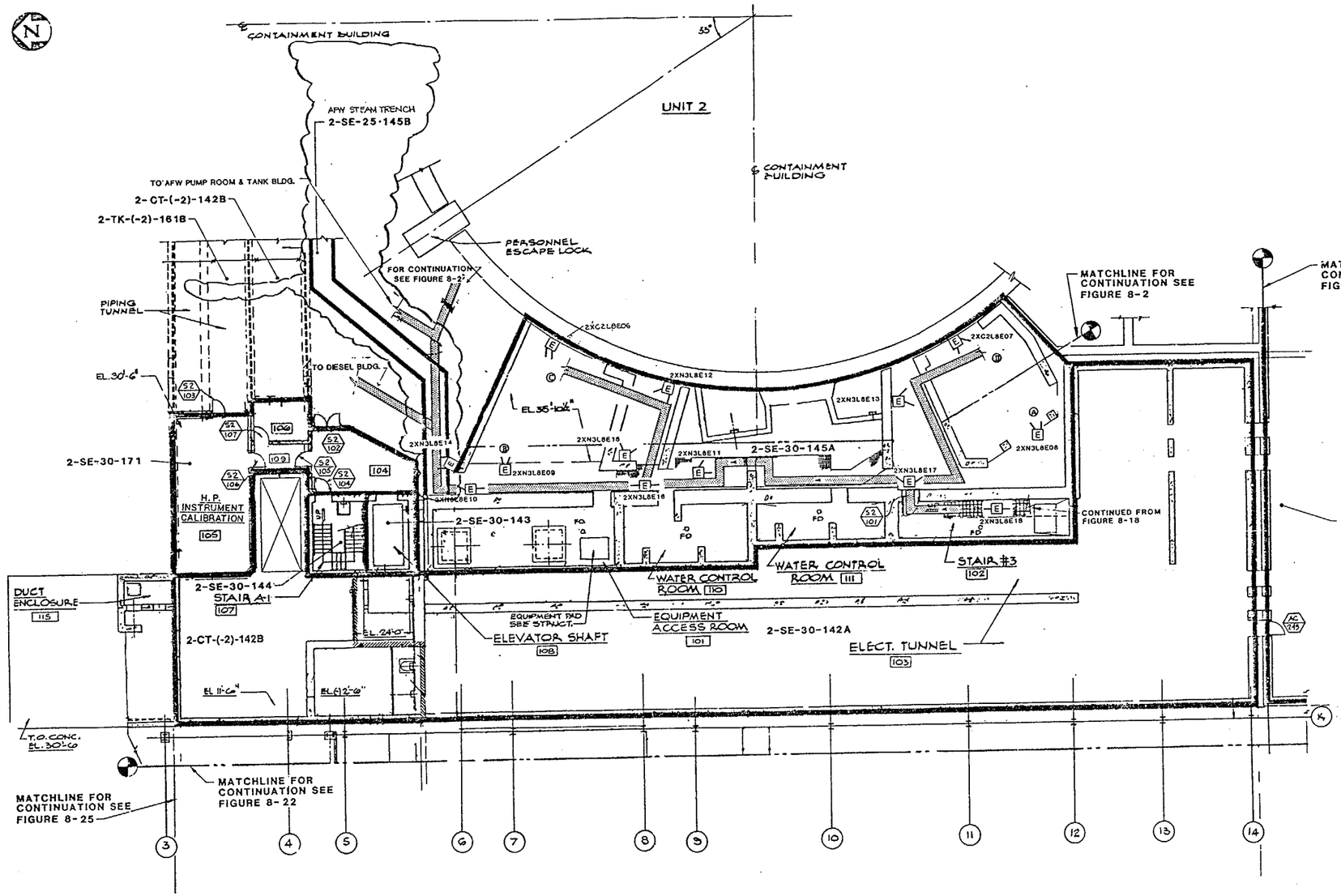
SAFETY EQUIPMENT BLDG
UNIT 2 EL. 8'-0"
8 HOUR EMERGENCY LIGHTING

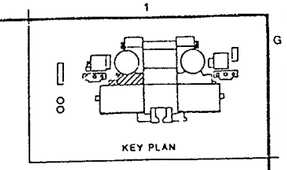
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-16 REV. 2
SHEET 4 OF 4

UFHA REV. 10 2/94 83310





PLAN AT ELEVATION 30'-6"

SCALE: N.T.S.

INFORMATION ONLY

LEGEND :

- DOOR NUMBER
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- EMERGENCY LIGHTING
- EGRESS ROUTE

QC-IIIFPS

REV.	DATE	DESCRIPTION	DWN.	CHK.
5	12-14-00	INCORPORATED DCN 2	EP	VN
4	12-17-92	INCORP. DCN 1, AS BUILT.	LGS	
3	[illegible]	AS BUILT BY F.LIGR; INC. PKG. SF-867, ADDED QC	P.D.J.	
2	4-22-[illegible]	INCORPORATE CHANGE PACKAGE # - 016		
1	11-20-84	UPDATED FOR FHA REVISION.		
0	1-9-84	EMERGENCY LIGHTING	DA	

SAN ONOFRE NUCLEAR GENERATING STATION

SAFETY EQUIPMENT BLDG
UNIT 2 EL. 30'-6"
8 HOUR EMERGENCY LIGHTING

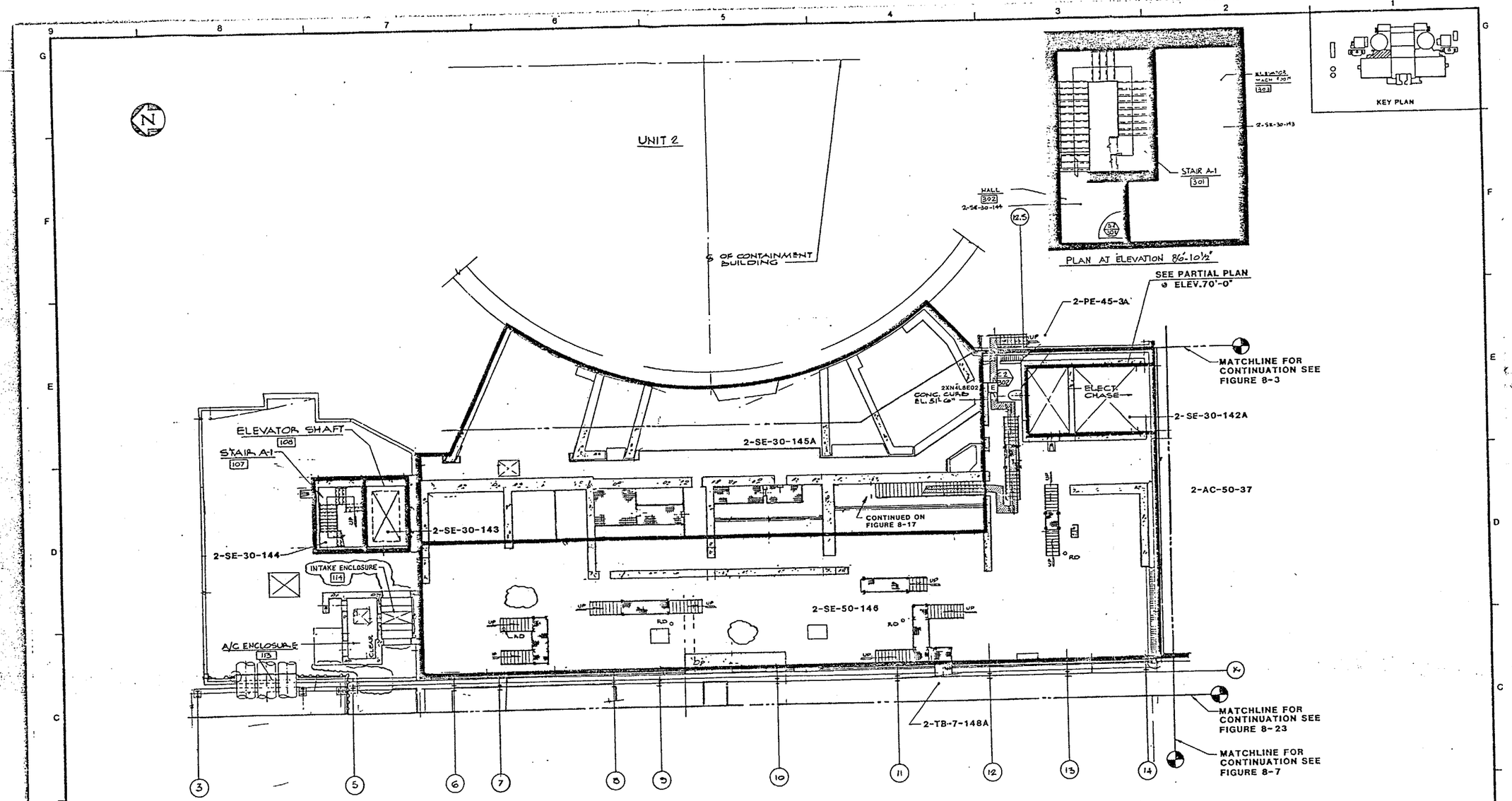
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

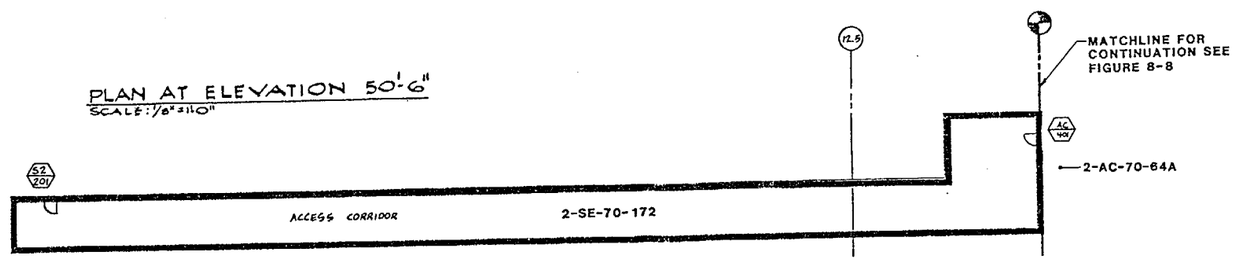
IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-17
REV. 5
SHEET 4 OF 4

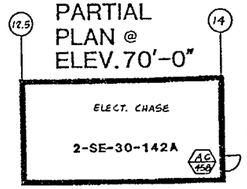
UFHA REV. 9 2/93

83140





PARTIAL PLAN @ ELEVATION 70' – 0"
SCALE: 1/8" = 1'-0"



PARTIAL PLAN @ ELEV. 70'-0"

LEGEND :
- DOOR NUMBER
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- EMERGENCY LIGHTING
- EGRESS ROUTE

QC-III FPS

INFORMATION ONLY

REV.	DATE	DESCRIPTION	DWN.	CHK.
4	1-10-99	INC. DCN 1	NM	VM
3	2-2-90	AS BUILT, BY FLUOR/SAC CHA-FHA, 0-98 JACKES 2C	S.S.	
2	4-23-87	INCORPORATE CHANGE PACKAGE # - 018		
1	11-20-84	UPDATED FOR FHA REVISION.		
0	1-9-84	EMERGENCY LIGHTING	CDL	

SAN ONOFRE NUCLEAR GENERATING STATION
SAFETY EQUIPMENT BLDG
UNIT 2 EL. 50'-6", 70'-0" & 86'-10½"
8 HOUR EMERGENCY LIGHTING
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.
IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-18
REV. 4
SHEET 4 OF 4

2 UFHA REV. 6 2/90 83141 1

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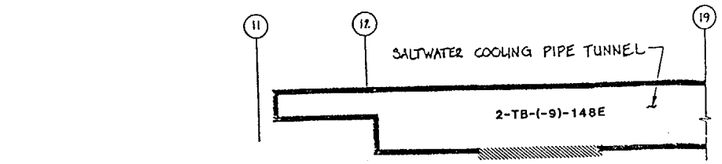
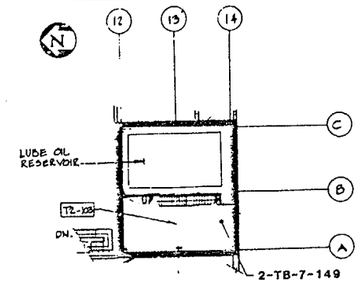
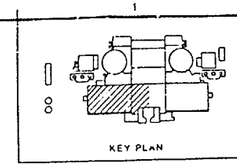
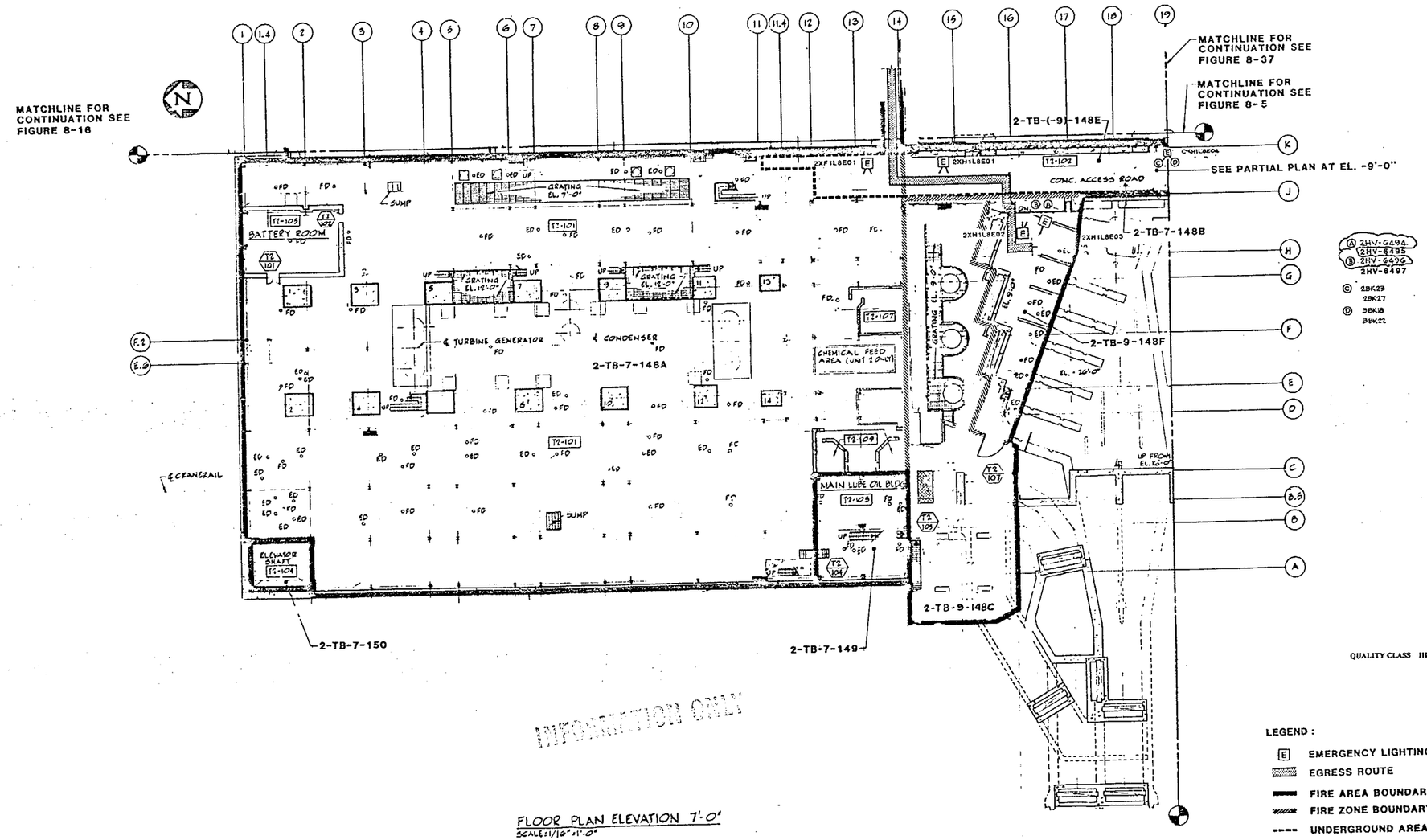


PARTIAL
PLAN @ ELEVATION -9'-0"
N.T.S.



MAIN LUBE OIL BLDG. EL. 23'-0"
PARTIAL PLAN
SCALE: 1/16" = 1'-0"





QUALITY CLASS III - FP9

INFORMATION ONLY

FLOOR PLAN ELEVATION 7'-0"
SCALE: 1/16" = 1'-0"

LEGEND :

- [E] EMERGENCY LIGHTING
- EGRESS ROUTE
- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
2	12-11-00	INCORPORATED DCN 2	EF	VM	
1	4-10-98	INCORP. DCN 1	EF	[illegible]	
0	4-22-88	EMERGENCY LIGHTING.	[illegible]	[illegible]	[illegible]

SAN ONOFRE NUCLEAR GENERATING STATION

TURBINE BUILDING
UNIT 2 EL. 7'-0"
8 HOUR EMERGENCY LIGHTING

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

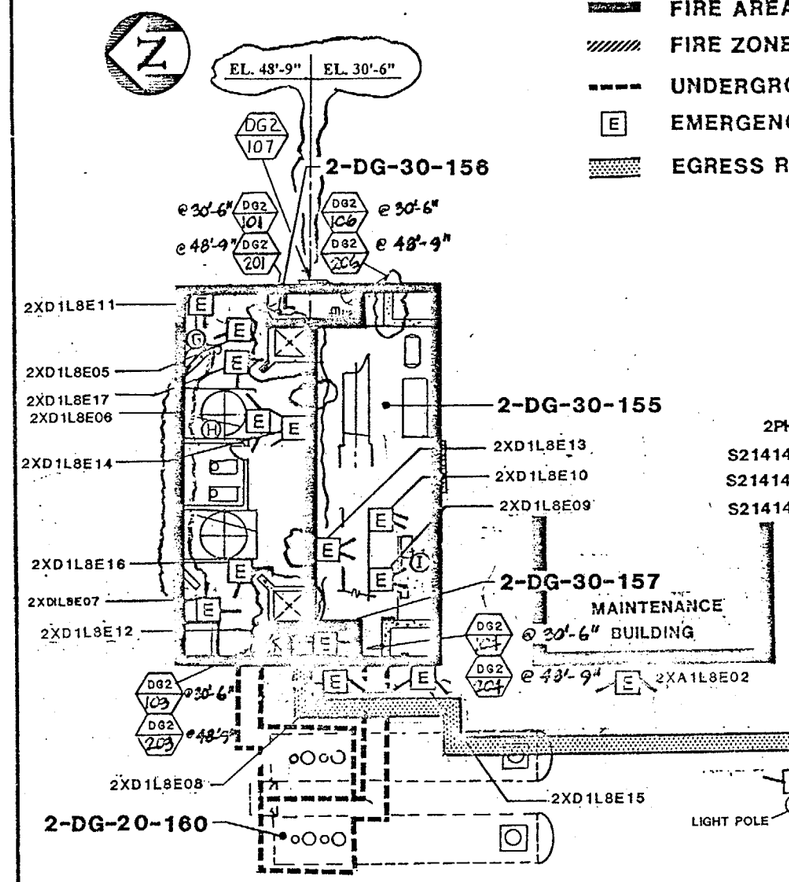
IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-21
REV. 2
SHEET 4 OF 4

UFHA REV.A 8/88 83311

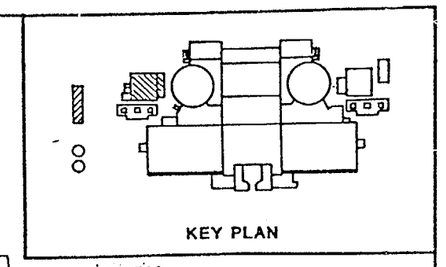
LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE
- E EMERGENCY LIGHTING
- EGRESS ROUTE

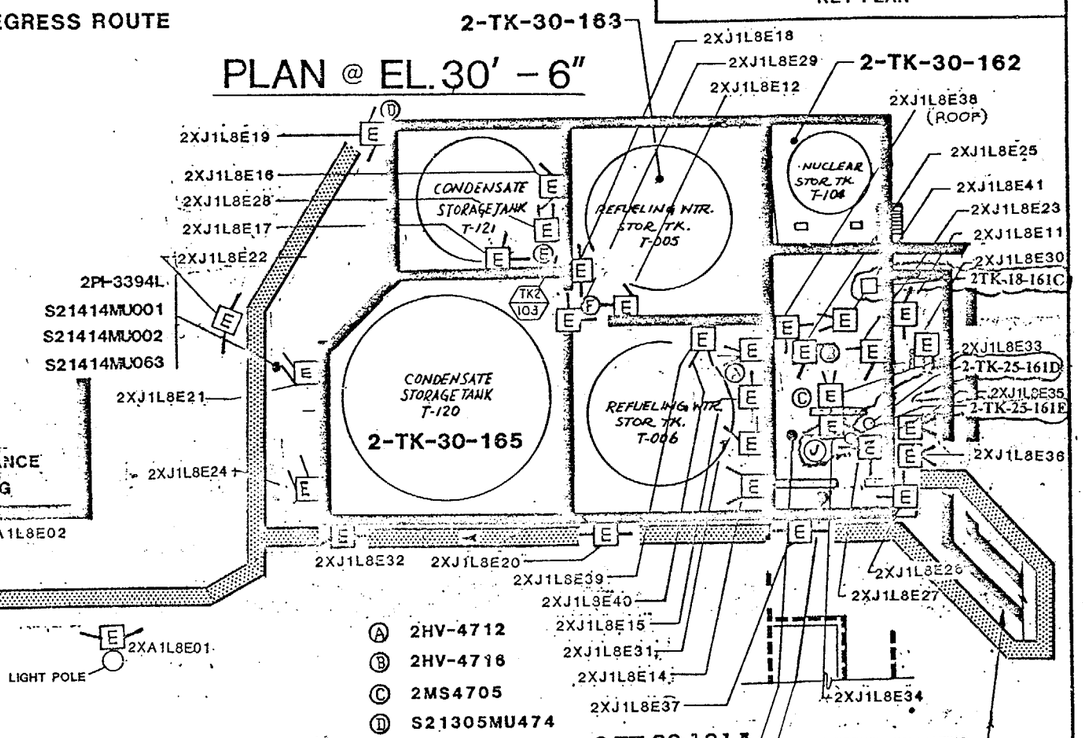


PLAN @ ELEVATION 30' – 6"

AND ELEVATION 48'-9"



PLAN @ EL. 30' – 6"



Ⓐ 2HV-4712
Ⓑ 2HV-4716
Ⓒ 2MS4705
Ⓓ S21305MU474
Ⓔ S21305MU476
Ⓕ S21414MU092
Ⓖ 2BD
Ⓗ 2L-160
Ⓘ 2L-161
Ⓙ 2PI4710L and S21305MR976

QC-III FPS

2PI-4701
2PI-4708
2PI-4734

INFORMATION ONLY

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.	P.E.
G	1-12-98	INCORP. DCN 4, 5 & 6		LOD	IGG	
5	1-11-96	INCORP. DCN 1, 2 & 3.		JCL		
4	1-22-90	AS BUILT BY FLUOR; INC. CHG PKG SF-086.		P.J.		
3	1-29-89	INCORPORATE CHANGE PACKAGE SF - 063		RTC		
2	4-26-88	INCORPORATE CHANGE PACKAGE IF - 018				
1	11-20-85	INCORP. CHG. PKG. SF-007		RR		
0	1-9-84	EMERGENCY LIGHTING		COL		

SAN ONOFRE NUCLEAR GENERATING STATION

DIESEL GEN. BLDG. & TANK BLDG.
UNIT 2 EL.30'-6"
8 HOUR EMERGENCY LIGHTING

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : N.T.S.
JOB NO. 0310-017
FIGURE NUMBER 8-26
REV. 6
SHEET 4 OF 4

UFHA REV. 11 2/96

83142

17X

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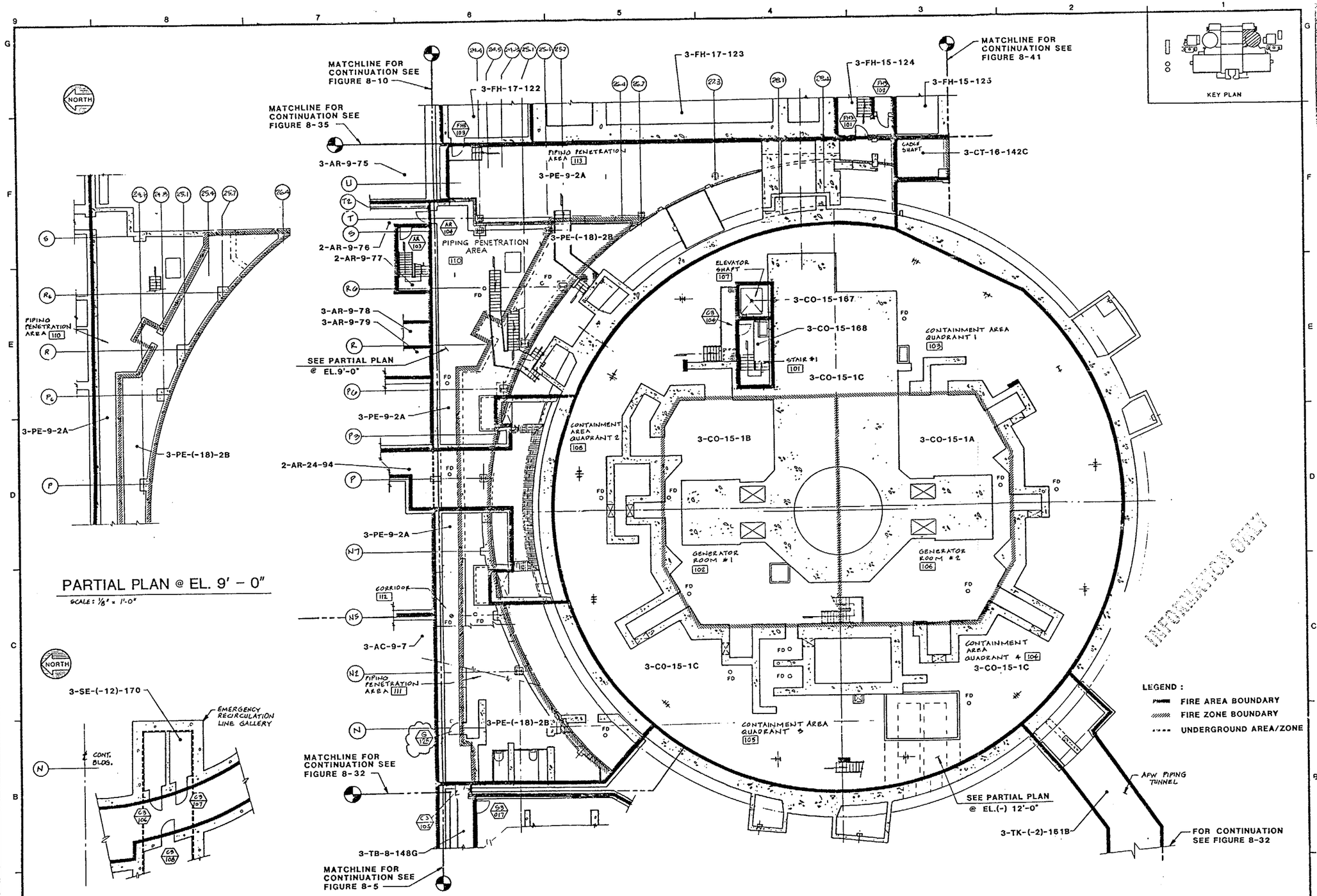
Unit 3
Fire Areas
Tab



REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
4	10-30-03	INCORPORATED CC-111	EF	VM	
3	1-22-96	AS BUILT PT FLUORLINE CHG PKG SF-076			
2	1-19-95	INCORPORATE CHANGE PACKAGE SF-050			
1	[illegible]	INCORP. CHANGE PKG. SF-006			
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

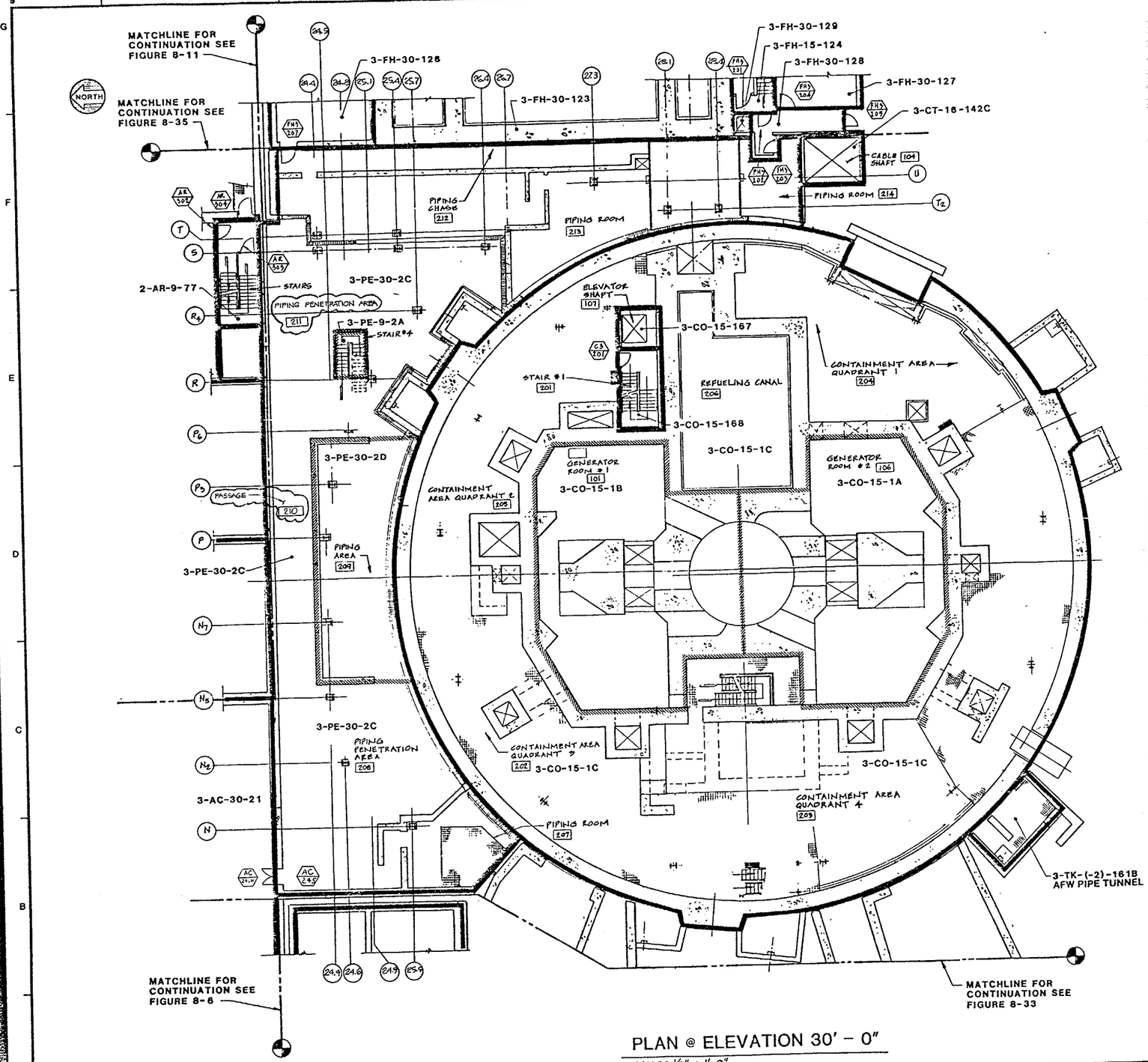
CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 3 EL. 9'-0" & 15'-0"
FIRE AREA BOUNDARY

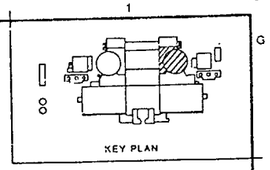
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-27
REV. 4
SHEET 1 OF 4

UFHA REV 6 2/90 83027





INFORMATION ONLY

PLAN @ ELEVATION 30' – 0"

SCALE: 1/8" = 1'-0"

LEGEND:

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC-III FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
5	10-24-00	INCORPORATED DCN 1	EP		
4	1-24-90	[illegible]			
3	12-3-86	INCORP CHG PKG SF042 AS BUILT BY EWHC			
2	[illegible]	INCORP. CHG. PKG. SF-022	RR		
1	11-20-84	UPDATED FOR FHA REVISION.			
0	2-15-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

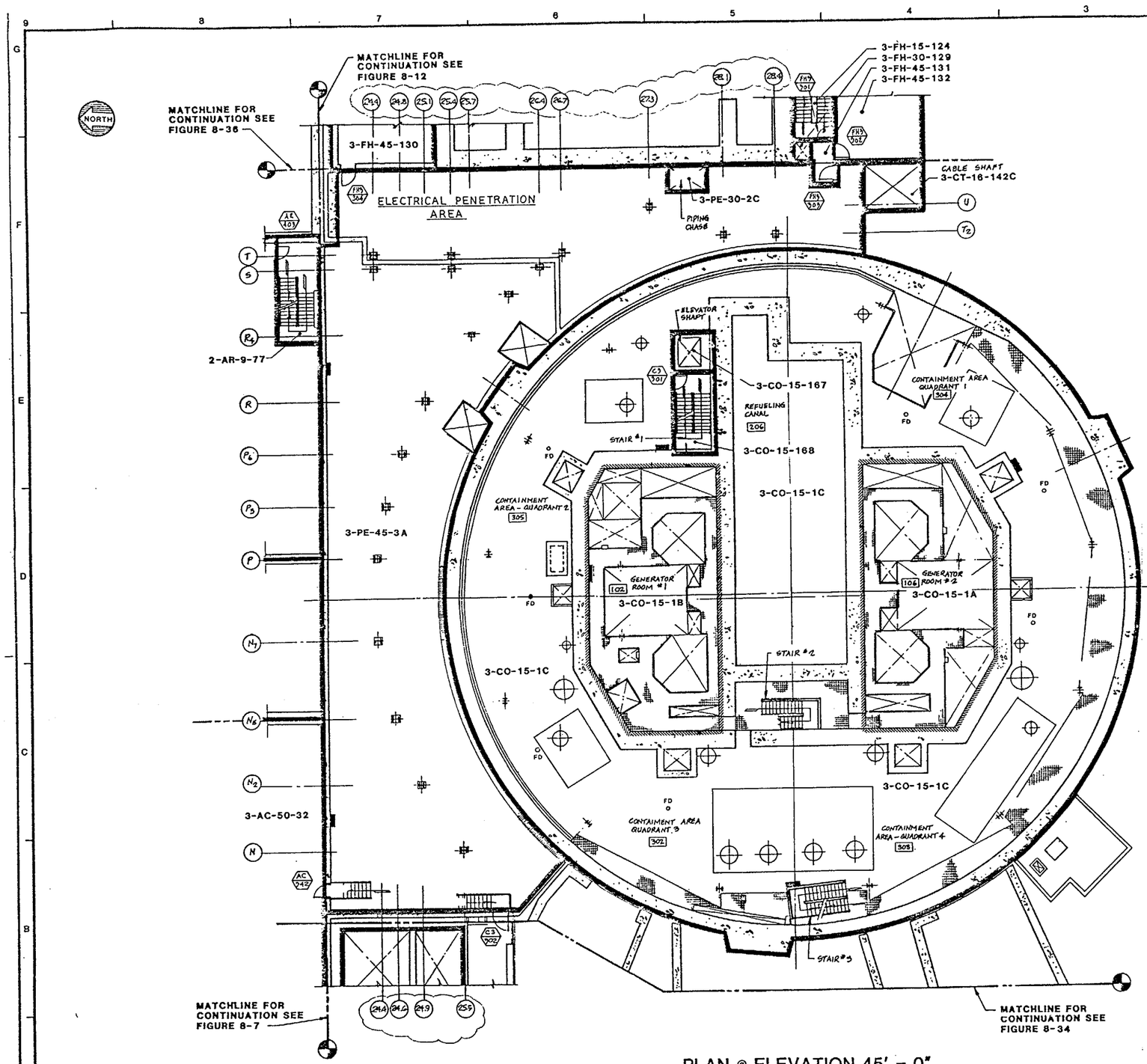
CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 3 EL. 30'-0"
FIRE AREA BOUNDARY

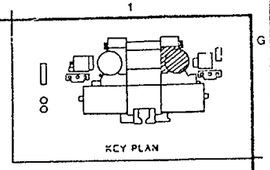
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-28
REV. 5
SHEET 1 OF 4

2 UFHA REV 6 2/90 83028 1





PLAN @ ELEVATION 45' - 0"

SCALE: 1/8" = 1'-0"

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC-IIIFPS

REV.	DATE	DESCRIPTION	DWN.	CHK.
3	2-7-90	ADDED FIRE AREA/ZONE CHG. PKG. SF-026	J.C.	
2	5-23-88	UPDATED FOR FHA REVISION		
1	1-14-85	INCORP. CHG. PKG. SF-026	RR	
0	2-1983	FIRE AREA/ZONE BOUNDARY DEFINITIONS		

SAN ONOFRE NUCLEAR GENERATING STATION

CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 3 EL. 45'-0"
FIRE AREA BOUNDARY

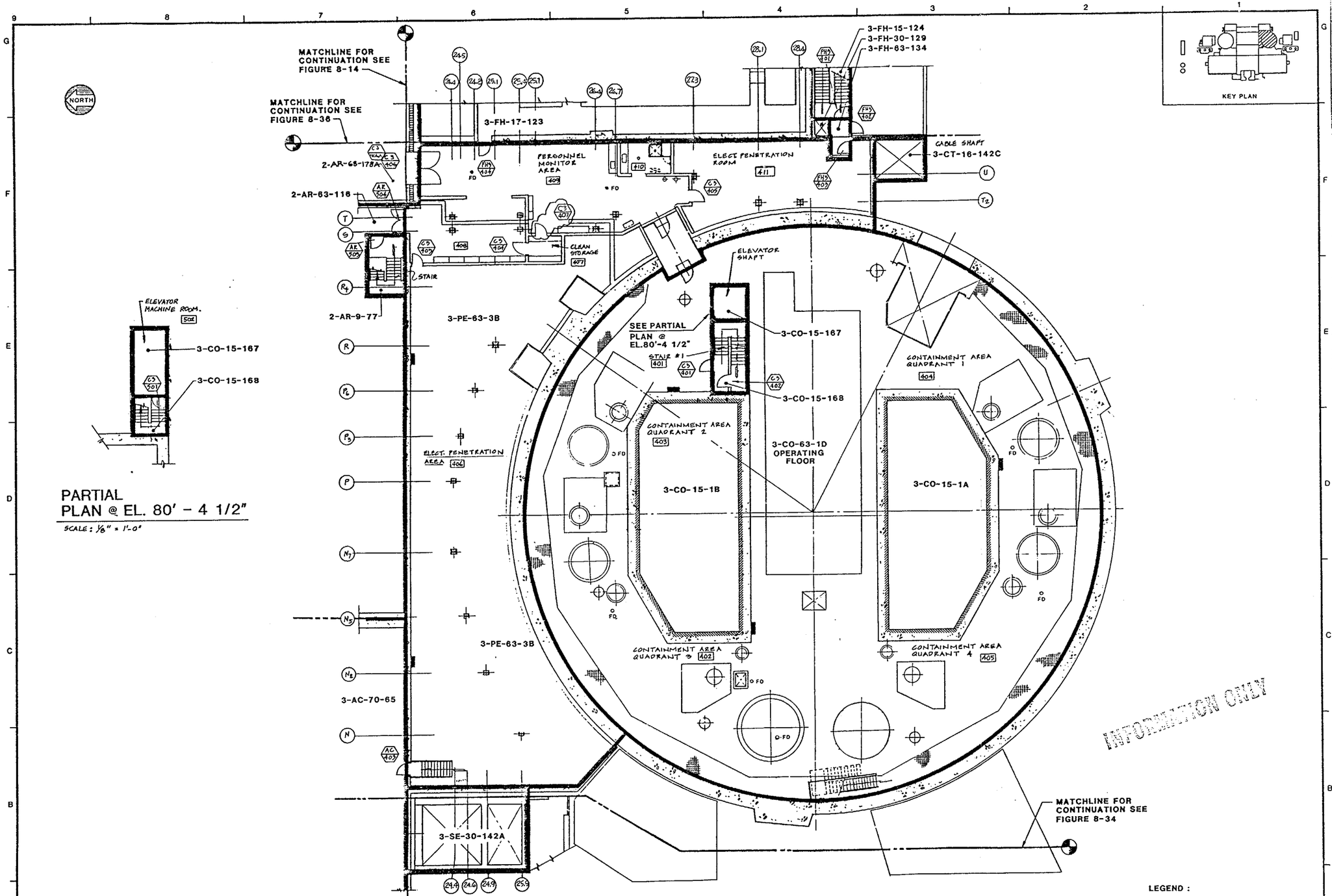
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-29
REV. 3
SHEET 1 OF 4

2 (FHA REV 6 2/90) 83029

INFORMATION ONLY



PARTIAL PLAN @ EL. 80' – 4 1/2"

SCALE: 1/8" = 1'-0"

PLAN @ ELEVATION 63' – 6"

SCALE: 1/8" = 1'-0"

QC-III FPS

LEGEND:

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.	PE.
4	10-18-00	INCORPORATED DCN 1		EF		
3	2-2-96	AS BUILT BY PLWORX INC. BF-076		J.C.		
2	1-30-91	INCORPORATE CHANGE PACKAGE BF-144B		RTK		
1	4-26-84	INCORP. CHANGE PKG. BF-095				
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS				

SAN ONOFRE NUCLEAR GENERATING STATION

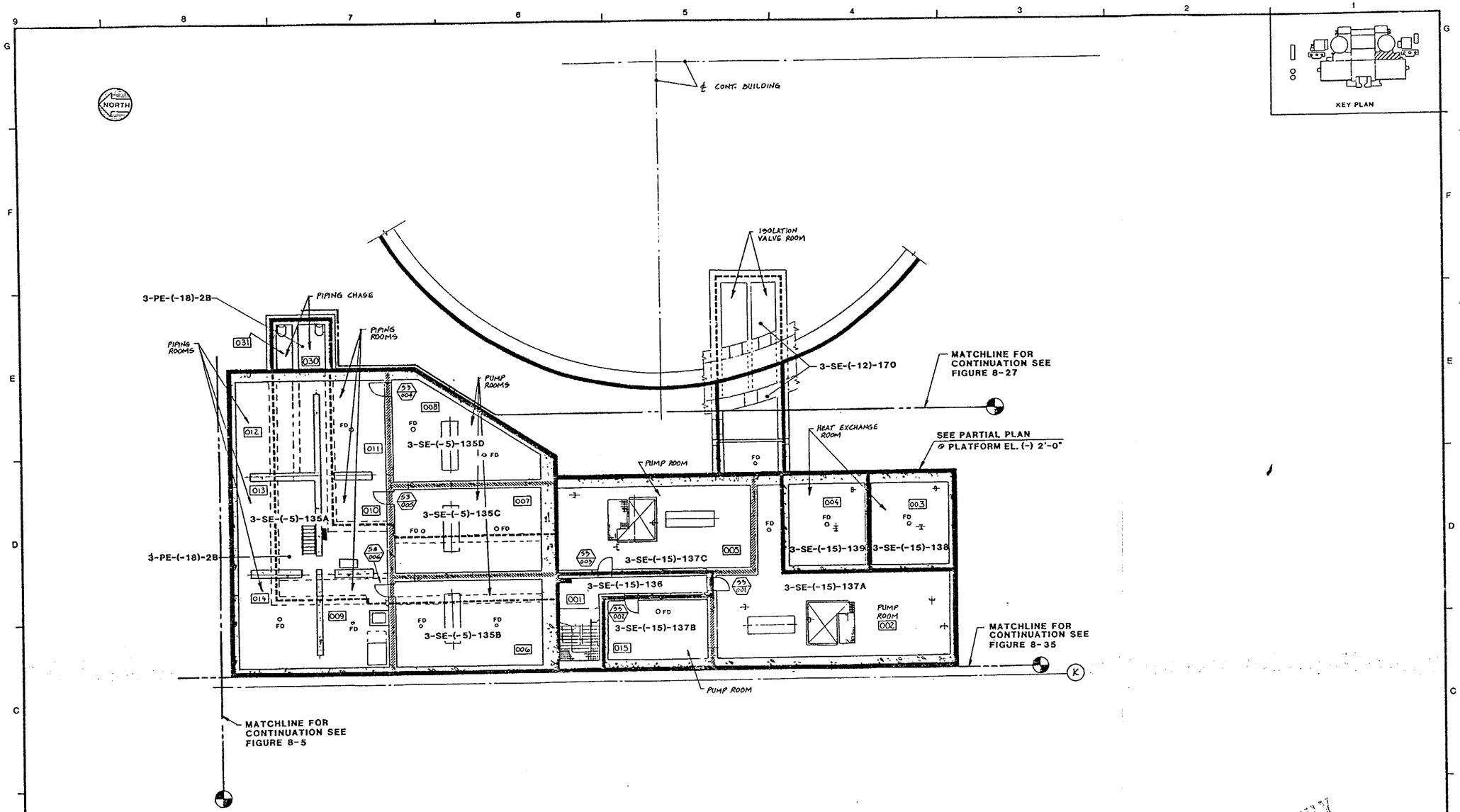
CONTAINMENT STRUCTURE
PENETRATION BLDG
UNIT 3 EL. 63'-6"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

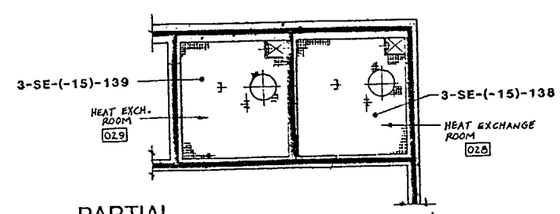
SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-30
REV 4
SHEET 1 OF 4

2 UFHA-REV 6 2/90 830 30



PLAN @ ELEVATION (-) 15' - 6" & (-) 5' - 3"

SCALE: 1/8" = 1'-0"



PARTIAL PLAN @ PLATFORM EL. (-) 2' - 0"

SCALE: 1/8" = 1'-0"

INFORMATION ONLY

LEGEND:

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
0	12-19-84	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

SAFETY EQUIPMENT BLDG
UNIT 3 EL.-15'-6" & -5'-3"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-31
REV. 0
SHEET 1 OF 3

83031

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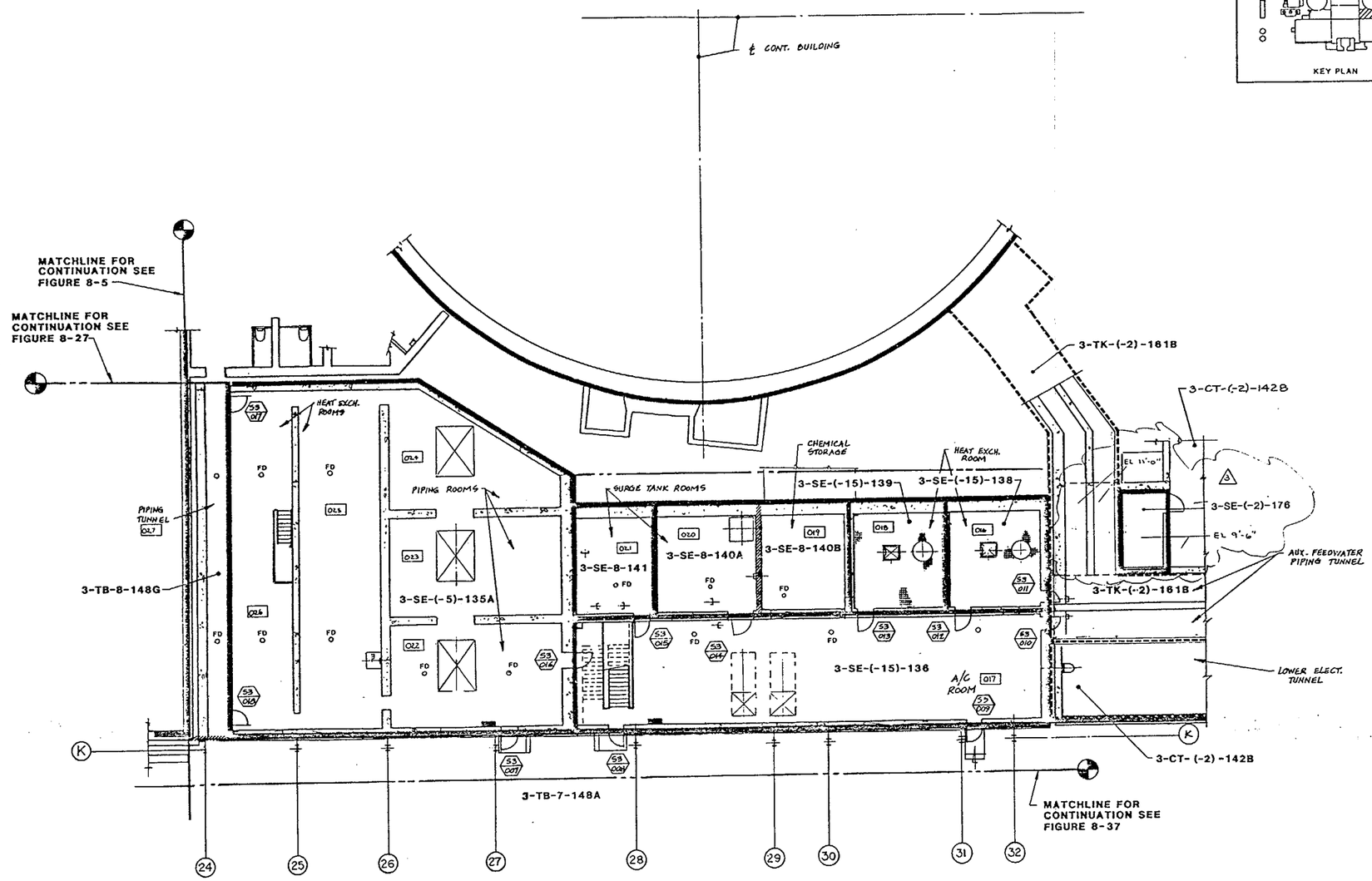

PLAN @ ELEVATION 8' – 0"

SCALE: 1/8" = 1'-0"

INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC-III FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
3	1-30-89	INCORPORATE CHANGE PACKAGE SF-084			
2	5-25-88	UPDATED FOR FHA REVISION			
1	11-12-84	UPDATED FOR FHA REVISION.			
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

SAFETY EQUIPMENT BLDG
UNIT 3 EL. 8'-0"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-32
REV 3
SHEET 1 OF 4

2-UFHA REV. 5 2/88 83032

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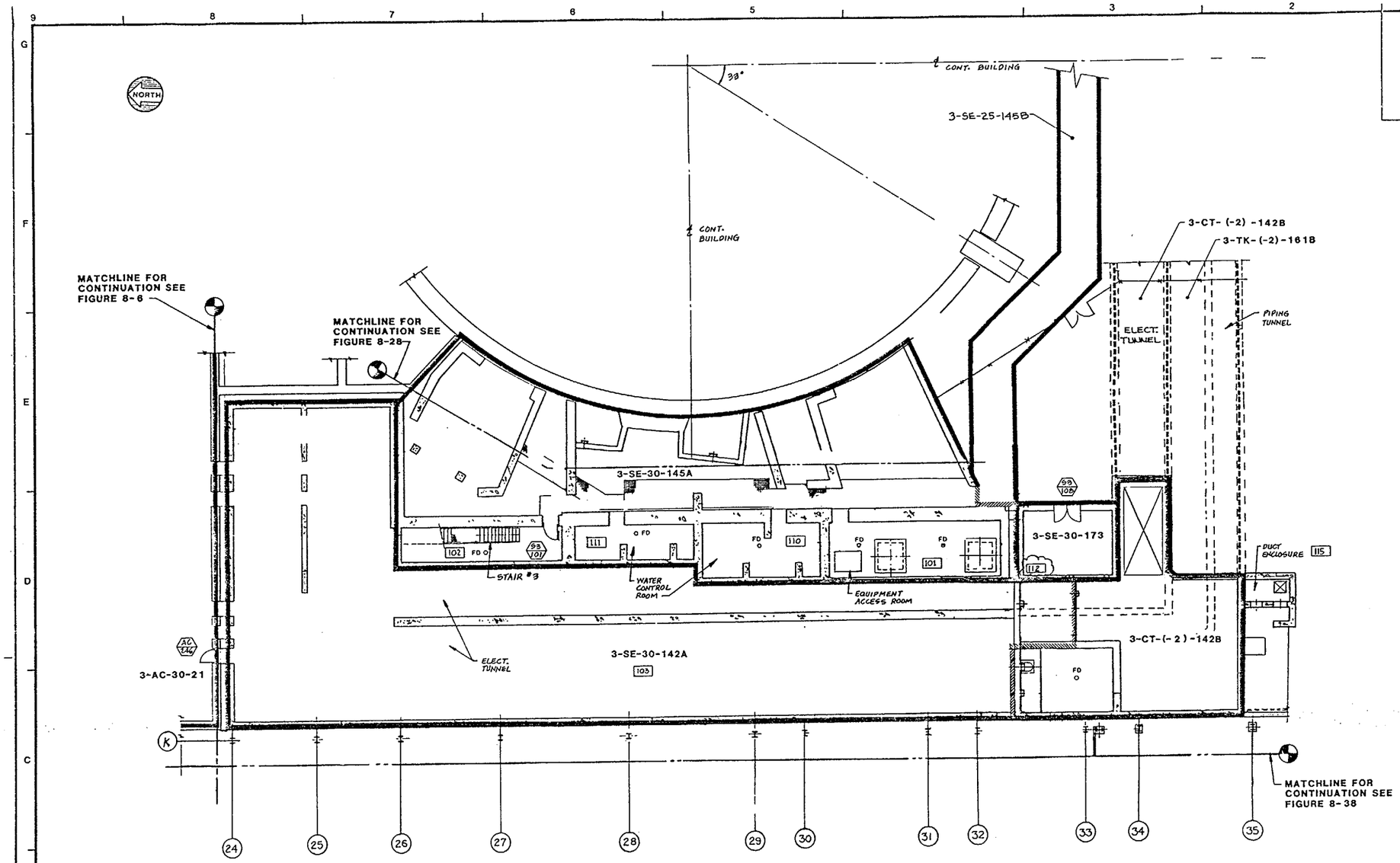


KEY PLAN

PLAN @ ELEVATION 30' – 6"

SCALE : N.T.S.

INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC-III FPS

REV.	DATE	DESCRIPTION	CA.	DWN.	CHK.
2	2-2-90	AS BUILT BY FLOOR PNL. CHG. PKG. S/F-087 & ADDED QC			
1	5-3-88	UPDATED FOR FHA REVISION			
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

SAFETY EQUIPMENT BLDG.
UNIT 3 EL.30'-6"
FIRE AREA BOUNDARY

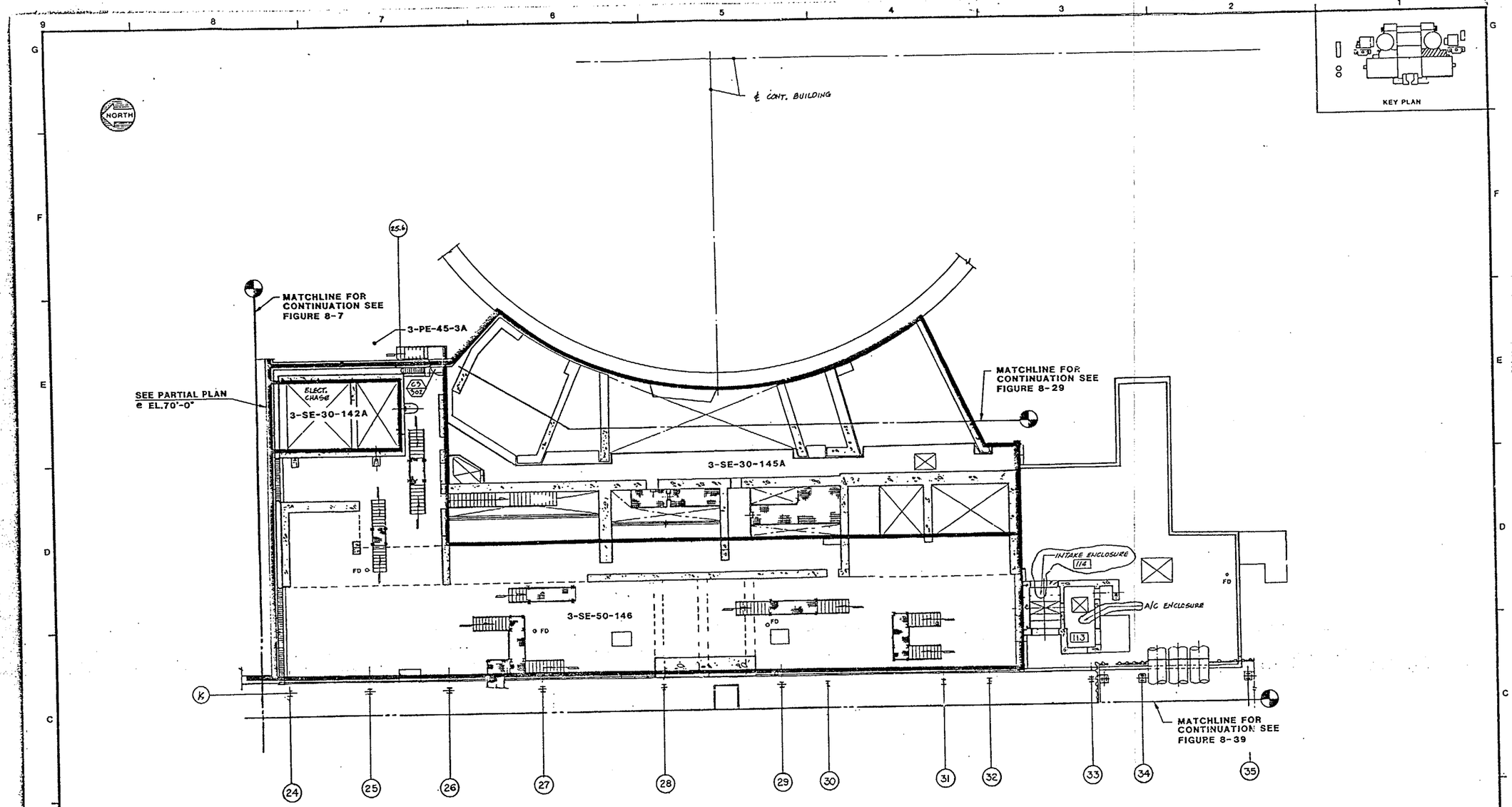
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-33
REV. 2
SHEET 1 OF 4

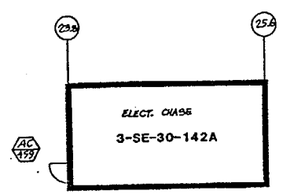
2 CUFHA REV.0 2/90 83033

30X



PLAN @ ELEVATION 50' – 6"

SCALE: 1/8" = 1'-0"



PARTIAL PLAN @ ELEV. 70'-0"

INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
2	1-10-90	INCORP. DCN 1	NPS	VM	
1	11-10-84	UPDATED FOR FNA REVISION.			
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

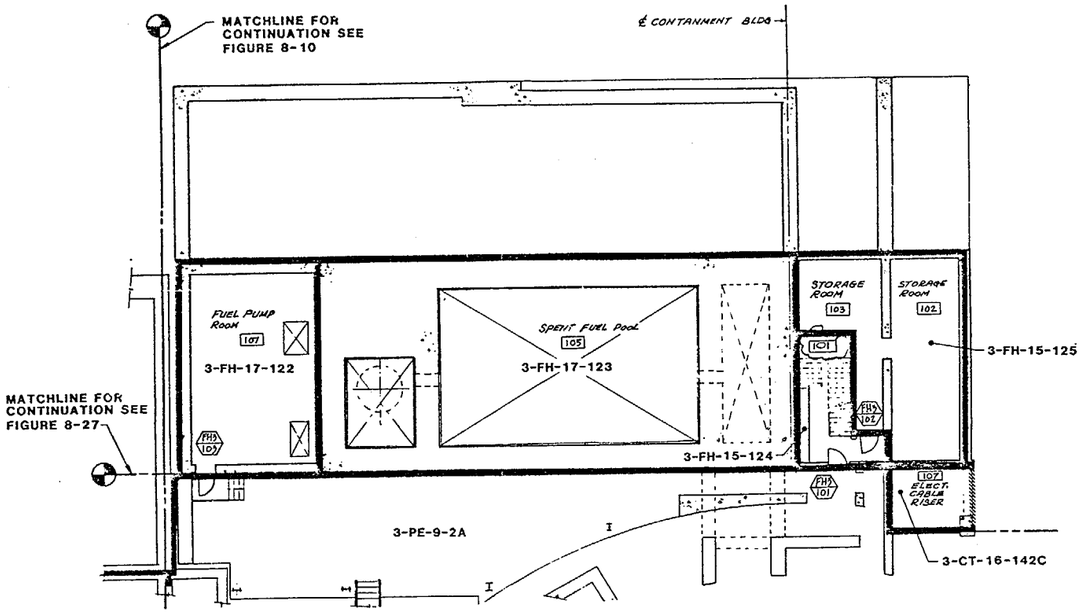
SAFETY EQUIPMENT BLDG
UNIT 3 EL. 50'-6" & 70'-0"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELLI

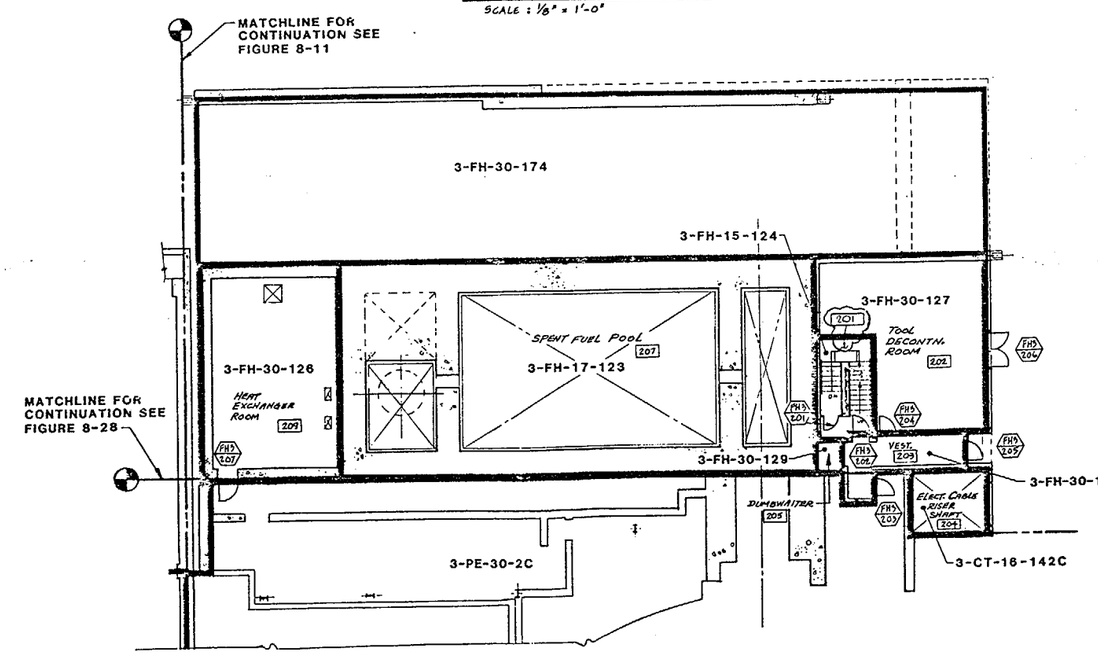
UFHA REV.1 1/86 83034 - 1

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-34
REV. 2
SHEET 1 OF 4



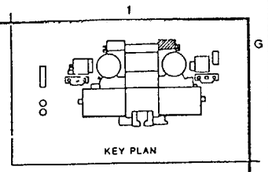
FLOOR PLAN @ ELEVATION 17' – 6"

SCALE : 1/8" = 1'-0"



FLOOR PLAN @ ELEVATION 30' – 0

SCALE : 1/8" = 1'-0"



LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC-IIIFPS

INFORMATION ONLY

REV.	DATE	DESCRIPTION	QA	DWN.	CHK.
2	10-30-03	INCORPORATED DCN 1		CP	TM
1	2-2-90	ADDED QC		J.C.	
0	2-9-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

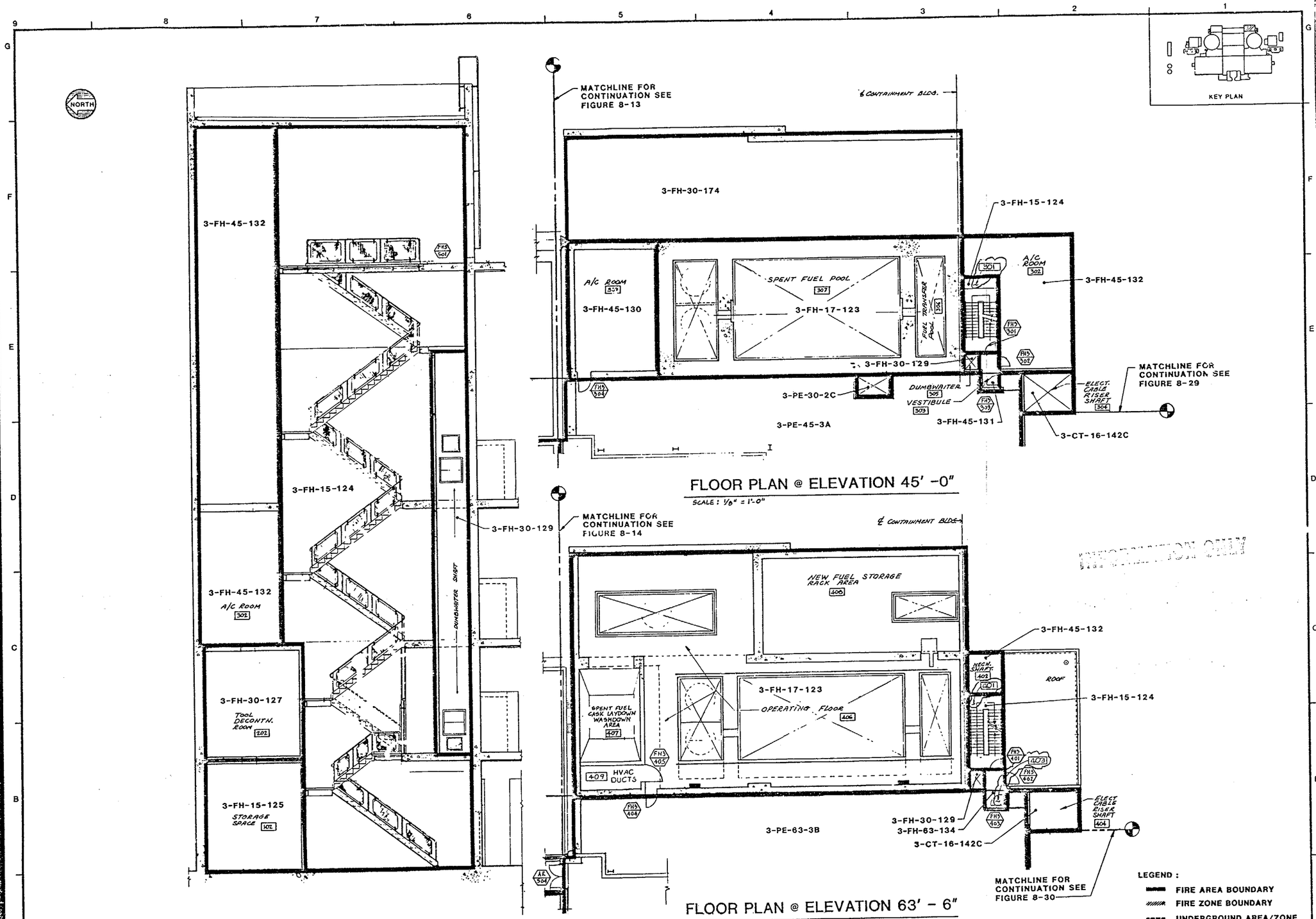
FUEL HANDLING BLDG
UNIT 3 EL.17'-6" & 30'-0"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-35
REV. 2
SHEET 1 OF 3

2 UFHA REV 6 2/90 83035



REV.	DATE	DESCRIPTION	QA	DWN.	CHK.
3	10-30-00	INCORPORATED DCN 1		BP	VN
2	2-2-87	AS BUILT BY FLOORING CIR. PKG. SF-078, ADDED QC	QA	SG	
1	[illegible]	INCORP. CHANGE PKG. SF-019		BP	
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

FUEL HANDLING BLDG
UNIT 3 EL. 45'-0" & 63'-6"
FIRE AREA BOUNDARY

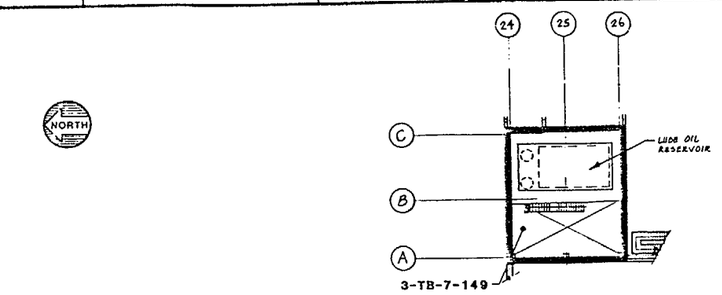
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-36
REV. 3
SHEET 1 OF 3

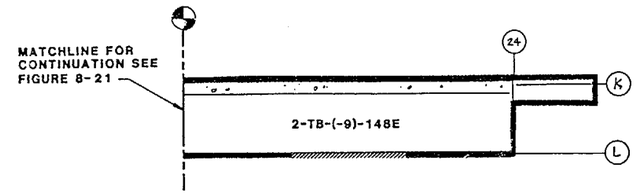
2 · UFHA REV 6 2/80 83036

INFORMATION ONLY

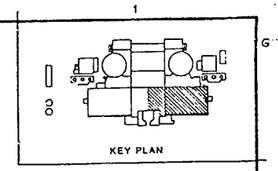


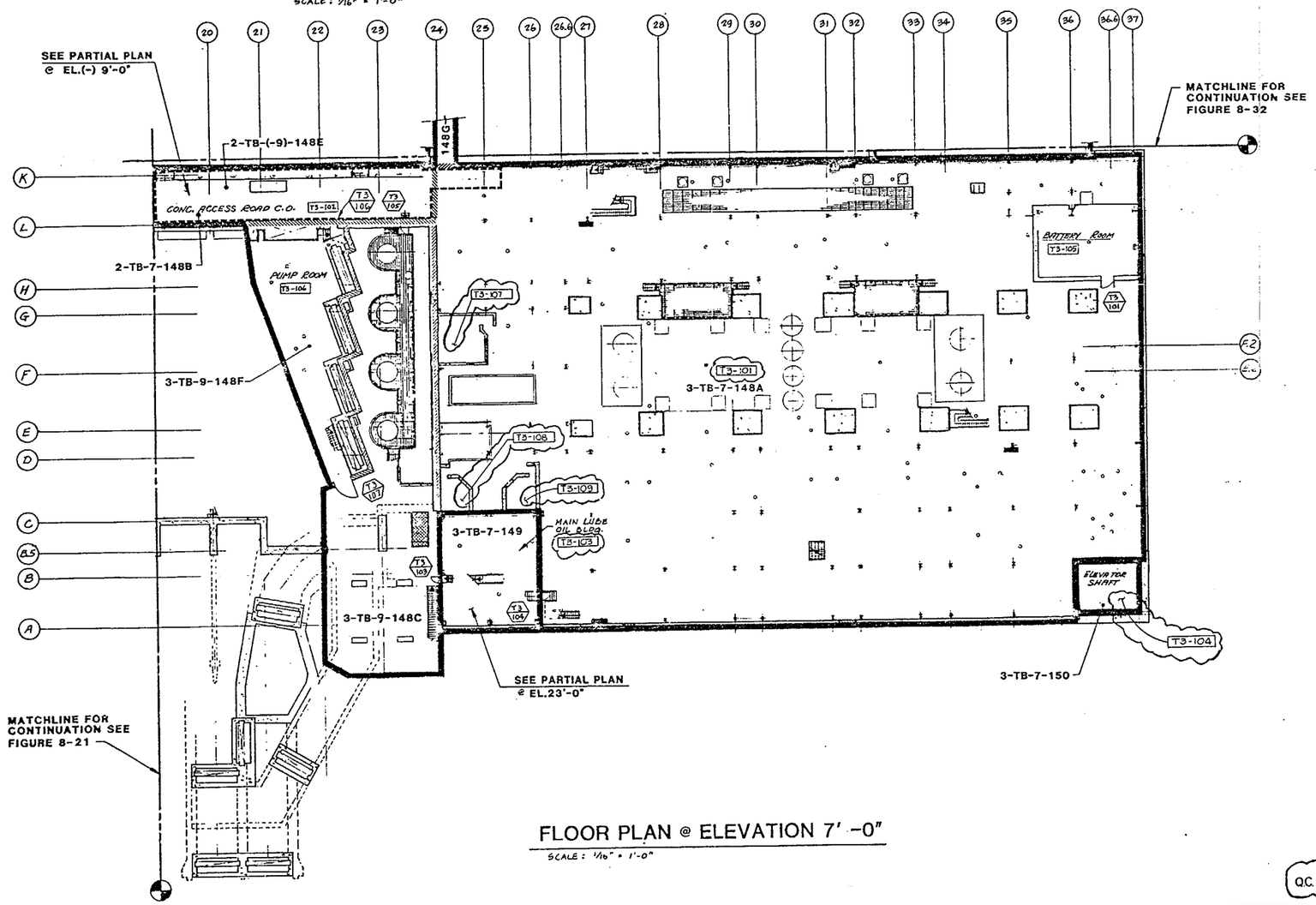
PARTIAL PLAN @ ELEVATION 23' - 0"
MAIN LUBE OIL BLDG

SCALE: 1/16" = 1'-0"



PARTIAL PLAN @ ELEV.(-) 9'-0"





FLOOR PLAN @ ELEVATION 7' -0"

SCALE: 1/16" = 1'-0"

INFORMATION ONLY

Q.C. III FPS

LEGEND:

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
2	10-19-00	INCORPORATED DCN 1			
1	[illegible]	INCORP. CHG. PKG SF-018	RR		
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

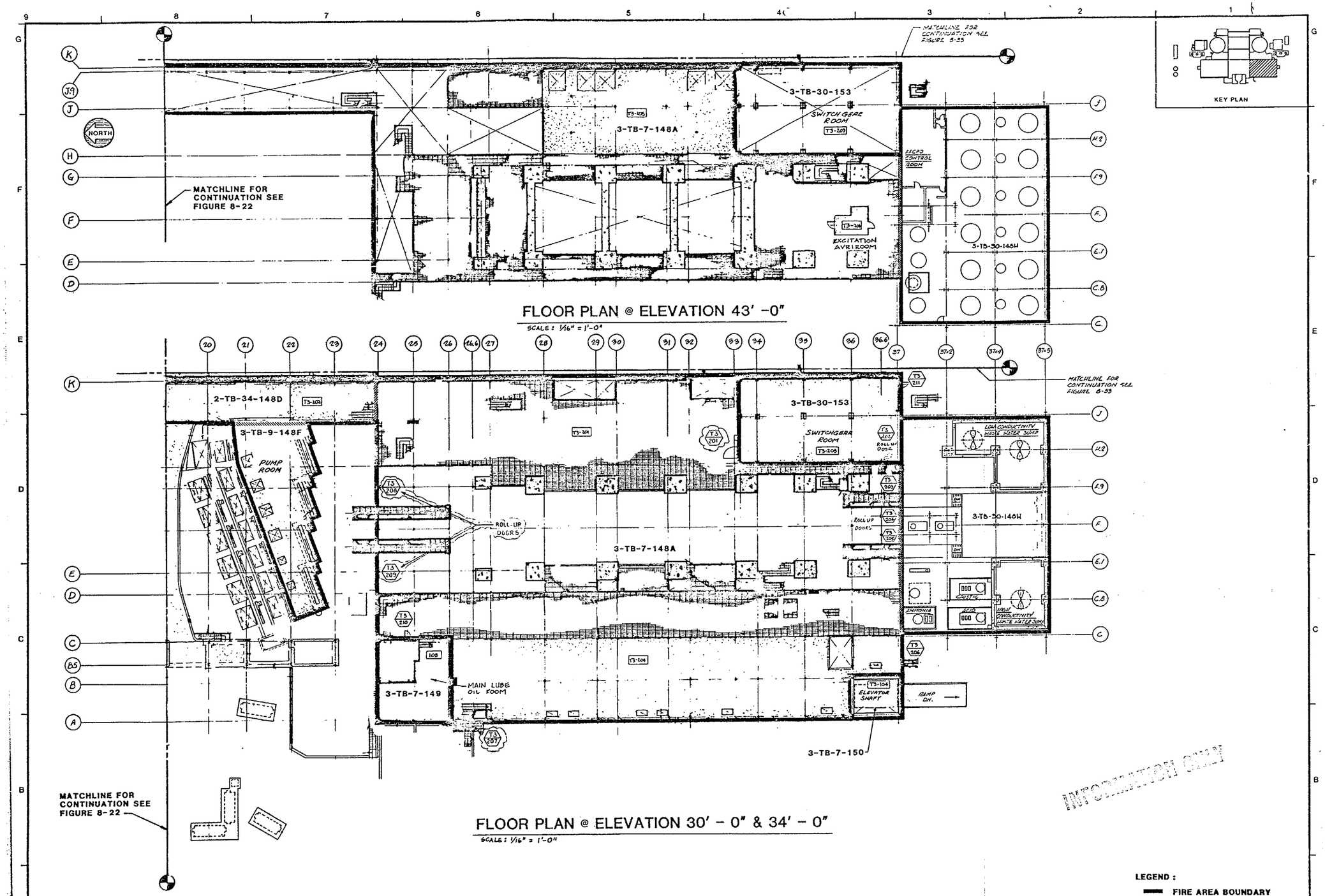
TURBINE BUILDING
UNIT 3 EL. 7'-0"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-37
REV. 2
SHEET 1 OF 4

URHA REV.2 2/88 83037



INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

QC-IIIFPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
2	1-22-90	AS BUILT BY FLUOR INC. CHG. PKG. SF-086, ADDED QC	R.J.J		
1	12-19-86	INCORP CHANGE PACKAGE (SF-083) AS BUILT BY BAHP	AO		
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

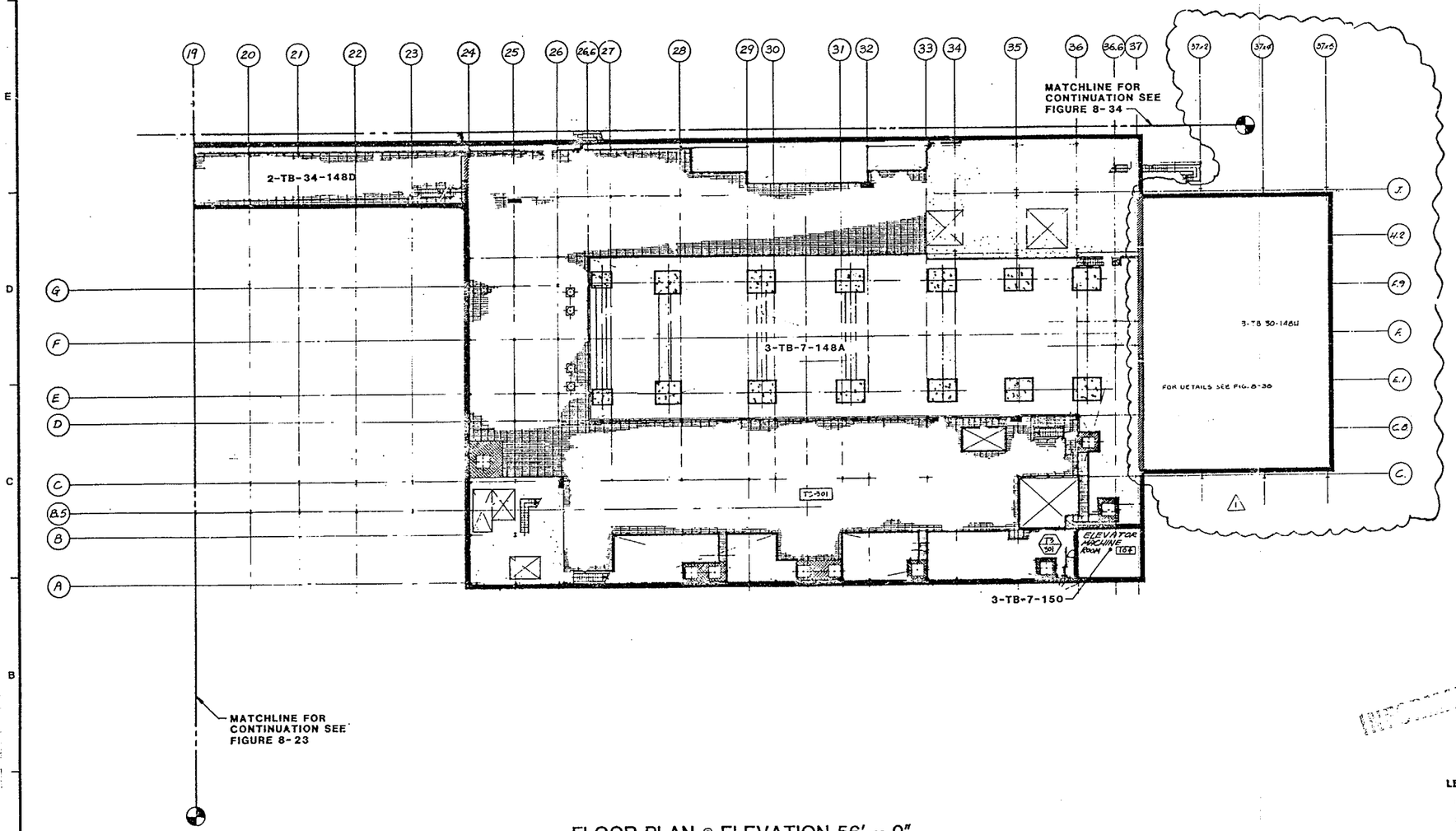
TURBINE BUILDING
UNIT 3 EL. 34'-0" & 43'-0"
FIRE AREA BOUNDARY

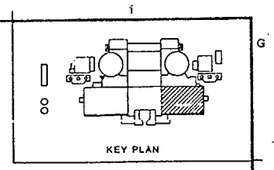
SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE :	AS NOTED
JOB NO.	0310-017
FIGURE NUMBER	8-38
REV.	2
SHEET	1 OF 3

2 UFHA REV 8 2/90 83038





INFORMATION ONLY

FLOOR PLAN @ ELEVATION 56' – 0"

SCALE: 1/8" = 1'-0"

LEGEND:

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
1	11-17-92	INCORP CHANGE PACKAGE (BF-065) AS BUILT BY BHRC	A.D.	PM	
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS		JRC	

SAN ONOFRE NUCLEAR GENERATING STATION

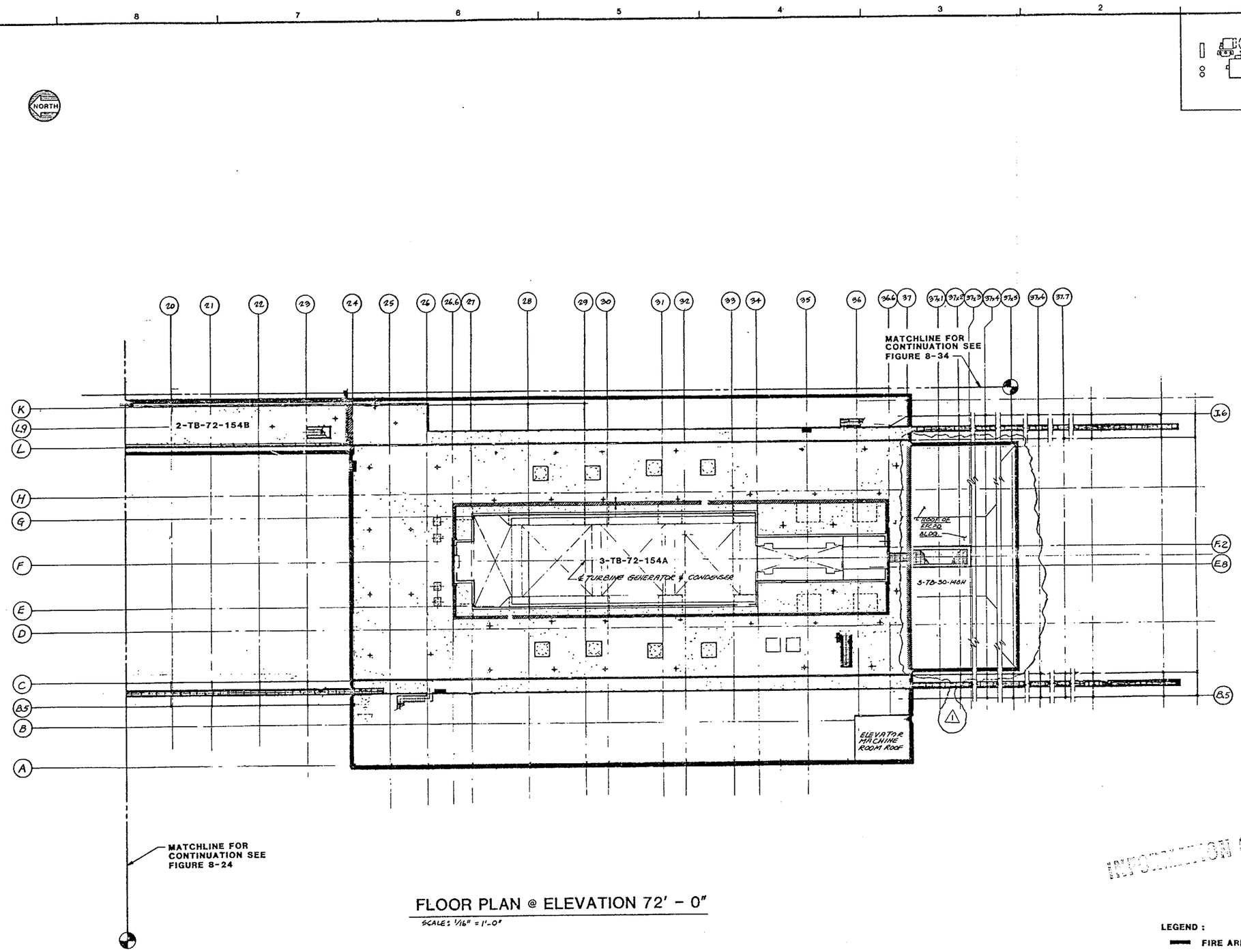
TURBINE BUILDING
UNIT 3 EL. 56'-0"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE: AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-39
REV. 1.
SHEET 1 OF 3

83039



FLOOR PLAN @ ELEVATION 72' – 0"

SCALE: 1/16" = 1'-0"

INFORMATION ONLY

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
1	11-17-86	UNDERPCHANGE PACKAGE (SF-088) AS BUILT BY SWPC	AO		
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

TURBINE BUILDING
UNIT 3 EL. 72'-6"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

SCALE : AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-40
REV. 1.
SHEET 1 OF 3

83040

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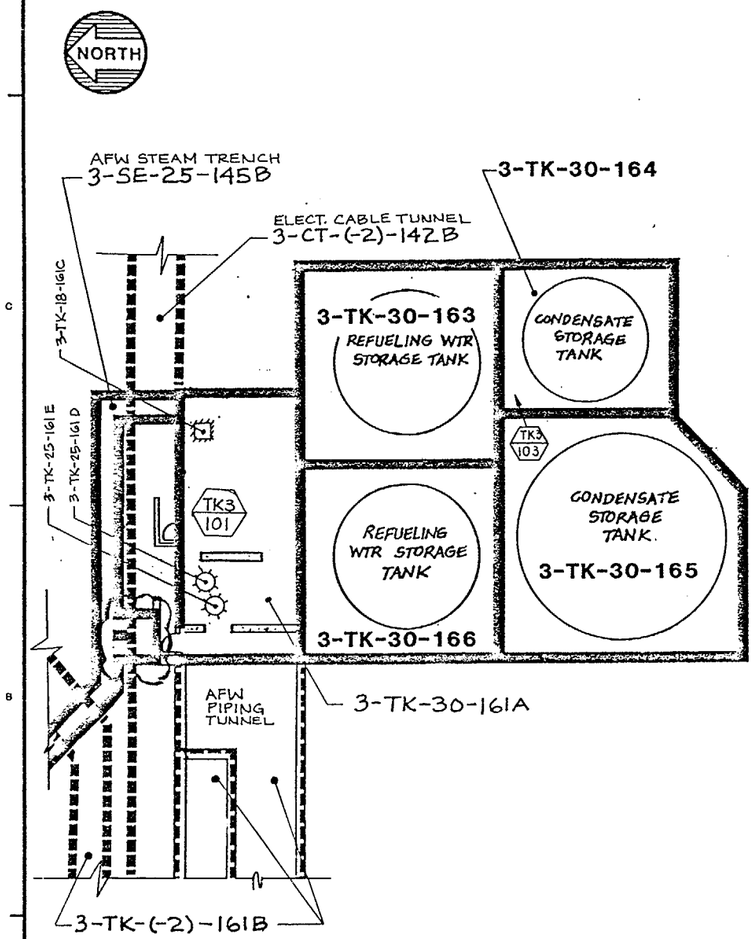
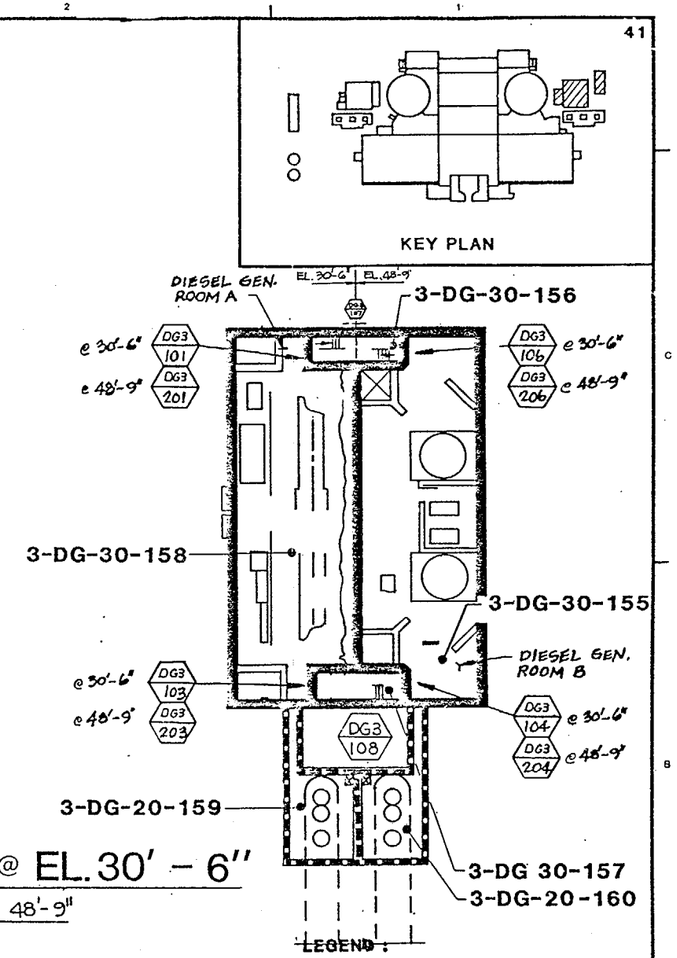


PLAN @ ELEVATION 30′ – 6″



PLAN @ EL. 30′ – 6″

AND ELEV. 48′-9″

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

NOTES :

1) SEE ARCHITECTURAL AND CIVIL-STRUCTURAL DRAWINGS FOR WALL CONSTRUCTION AND CONFIGURATION

INFORMATION ONLY

QC-IIIFPS

REV.	DATE	DESCRIPTION	QA	NE	DWN.	CHK.	P.E.
6	10-17-00	INCORP. DCN 4			EF		
5	1-12-98	INCORP. DCN 2 & 3			EF	VM	
4	1-10-96	INCORP. DCN 1.			LOD		
3	1-22-90	AS BUILT BY FLUOR/INC. CHG PKG SF-086, ADDED QC			P.d.J.		
2	5-4-88	UPDATED FOR FHA REVISION					
1	11-10-85	INCORP CHG PKG SF-007			RG		
0	12-19-83						

SAN ONOFRE NUCLEAR GENERATING STATION

DIESEL GEN. BLDG. & TANK BLDG.
UNIT 3 EL.30′-6″
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL CORPORATION

SCALE : N.T.S.

JOB NO. 0310-017

FIGURE NUMBER 8-41 REV. 6

SHEET 1 OF 4

UFHA REV. 11 2/96 83041

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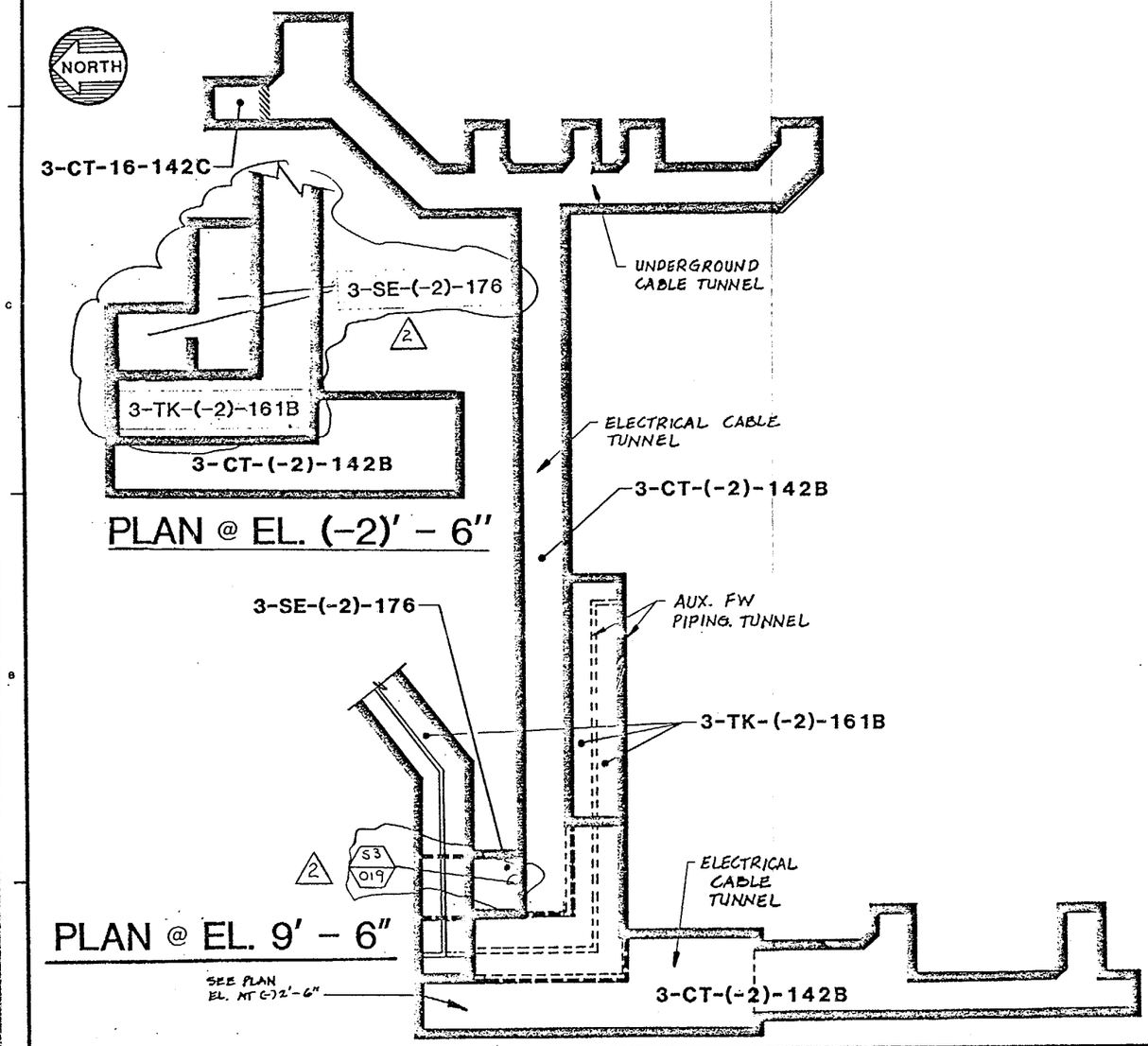

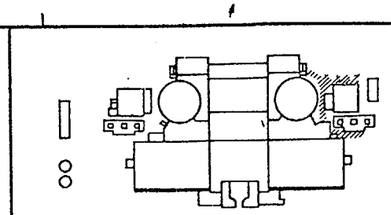

LEGEND :

- FIRE AREA BOUNDARY
- FIRE ZONE BOUNDARY
- UNDERGROUND AREA/ZONE

NOTES :

1) SEE ARCHITECTURAL AND CIVIL-STRUCTURAL DRAWINGS FOR WALL CONSTRUCTION AND CONFIGURATION

QC-III FPS

REV.	DATE	DESCRIPTION	DWN.	CHK.	P.E.
2	1-30-89	INCORPORATE CHANGE PACKAGES SF - 062 AND SF - 064	RTC		
1	5-5-88	UPDATED FOR FHA REVISION			
0	12-19-83	FIRE AREA/ZONE BOUNDARY DEFINITIONS			

SAN ONOFRE NUCLEAR GENERATING STATION

CABLE TUNNEL AREA
UNIT 3 EL.9'-6"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES, CALIF.

IMPELL

UFHA REV. 5 2/89

83042

SCALE : N.T.S.

JOB NO. 0310 - 017

FIGURE NUMBER	REV.
8-42	2

SHEET 1 OF 3

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