STATE OF CALIFORNIA

CALIFORNIA POLLUTION
CONTROL FINANCING AUTHORITY
915 CAPITOL MALL, ROOM 280
SACRAMENTO 95814
(916) 445-9597

October 22, 1984

Mr. Robert Thomas - Material Reactor
Protection & Licensing Section
Nuclear Regulatory Commission
1450 Maria Lane, Suite 210
Walnut Creek, California 94596

Dear Mr. Thomas:

Re: SOUTHERN CALIFORNIA EDISON COMPANY - Application No. 421

The California Pollution Control Financing Authority is required by Health and Safety Code Section 44533(b) to obtain certificates from various pollution control agencies before it sells Bonds to assist companies with financing their projects.

Section 44533(b) reads:

> "No project relating to the improvement of air or water quality or solid waste control shall be eligible for financing under this division unless, prior to the issuance of bonds or notes, a local, regional, state, or federal environmental authority exercising jurisdiction over the project certifies that the project, as designed, will further compliance with federal, state or local pollution control standards and requirements..."

The Authority has received the enclosed supplemental application for financing. Thus, in accordance with the provisions of the law, we are asking your agency to review the description of the proposed project and to provide us with any comments or reservations you may have. The Authority met on September 19, 1984, and approved the supplement to the Initial Resolution for the project.

Section 44533(c) reads:

> "No certification issued pursuant to subdivision (b) shall be admissible in evidence, constitute an admission, or bind any certifying authority in any proceeding in which the compliance of a participating party's facilities with any applicable pollution control, land use, zoning or other similar law is an issue or in any application or proceeding for a permit to locate or construct facilities."

I have enclosed a copy of the certificate you signed in connection with our earlier financing for this facility. We require a similar signed certificate prior to approval of a Final Resolution to proceed with additional financing.

Thank you for your attention to these matters.

Sincerely,

Douglas E. Chandler

DOUGLAS E. CHANDLER
EXECUTIVE SECRETARY

Attachment

CERTIFICATE

SAN ONOFRE NUCLEAR GENERATING STATION

UNIT 3

POLLUTION CONTROL FACILITIES

The Nuclear Regulatory Commission (the NRC) hereby certifies as follows:

(a) that it has examined 1) Part 3.2 of Southern California Edison's application for financing, dated October 27, 1983 attached hereto which is entitled "The Pullution Control Facilities: Functional and Engineering Description" and which describes certain facilities which have been constructed and, 2) Appendix 3.2 of the application attached hereto which is entitled "San Onofre Nuclear Generating Station No. 3, Estimated Pollution Control Equipment Costs" and which lists certain facilities which are under construction or are to be constructed at the San Onofre Nuclear Generating Station, a nuclear electric power generating plant located on the Pacific Coast approximately 2 miles south of the City of San Clemente, California, undivided interests in which plant are owned by Southern California Edison Company, San Diego Gas & Electric Company, and the Cities of Anaheim and Riverside; and

(b) that such facilities, as designed, are in furtherance of the purpose of abating or controlling atmospheric pollutants or contaminants or water pollutants resulting from the generation of electricity at the San Onofre Nuclear Generating Station.

For the Nuclear Regulatory Commission

Harold R. Denton

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland
this 30th day of December 1983

8401180023 1p.

BANK OF AMERICA N.T. & S.A.
Walnut Grove-Rush Office, Rosemead, Calif
16-66/1222 10825-00001

Southern California Edison Company SCE Rosemead, California

AUG 30 1984
PLEASE CASH
WITHIN 60 DAYS

PAYMENT AUTHORIZED FOR COMPTROLLER IF OVER $100,000

CHECK NO.
T 032583

AMOUNT OF CHECK
$5,000.00*******

pay to the order of CALIFORNIA POLLUTION CONTROL FINANCING AUTHORITY

⑆122000661⑆ 10825⑈00001⑈

Southern California Edison Company

P. O. BOX 800

2244 WALNUT GROVE AVENUE

ROSEMEAD, CALIFORNIA 91770

MICHAEL L. NOEL

VICE PRESIDENT AND TREASURER

TELEPHONE

213-572-1086

August 31, 1984

Mr. Douglas Chandler
Executive Secretary
California Pollution Control
Financing Authority
915 Capitol Mall, Room 110
Sacramento, CA 95814

Re: Supplement to the Application of Southern California Edison Company for Financing of Pollution Control, Solid Waste Disposal and Sewage Disposal Facilities at the San Onofre Nuclear Generating Station Units 2 and 3

Dear Mr. Chandler:

On October 27, 1983 Southern California Edison Company (the "Company") filed an Application with the California Pollution Control Financing Authority requesting an initial inducement resolution with respect to financing for certain pollution control, solid waste disposal and sewage disposal facilities at the San Onofre Nuclear Generating Station Units 2 and 3. That Application requested preliminary approval for $225 million of bonds. This preliminary approval was granted on November 16, 1983 for facilities described in that Application. Since the date on which that Application was approved, additional pollution control and solid waste disposal facilities have been identified. One such additional system, the full flow condensate polishing demineralizer resin regeneration system, estimated to cost the Company $42,250,000, was approved in connection with the Authority's final bond resolution dated February 15, 1984, bringing total facilities induced to approximately $267 million. Earlier this year the Authority issued $196 million of bonds to finance certain of these induced facilities.

267
196
71

Enclosed for filing are four copies of a Supplement to the original Application which provides updated financial information and reflects these additional systems. Also enclosed is a check for $5,000 to cover any supplemental application fee. Part 2 of the Application, as hereby

SCE

supplemented, provides the Company's year-end 1983 and June 30, 1984 financial statements. Part 3 of the Application, as hereby supplemented, provides descriptions and cost estimates for pollution control and solid waste disposal systems at the San Onofre Nuclear Generating Station Units 2 and 3 that were not described in the original Application or in the February 15, 1984 final bond resolution. Part 4 of the Application is hereby superceded in its entirety by a revised Part 4 to reflect an increase of approximately $100 million in total facilities induced. This will result in an increase in the maximum requested amount of financing to $367 million.

We respectfully request that this proposed 196 & 71 Supplement be acted upon by the Authority at its September 19, 1984 meeting. Because I will be out of the office next week, I would appreciate your calling Lawrence W. Yu, Manager of Financing, at (818) 572-4490 if you have any questions or need any additional information.

Sincerely,

Michael L. Hoel

Supplement

to

Application of Southern California Edison Company for Financing of Pollution Control, Solid Waste Disposal and Sewage Disposal Facilities at San Onofre Nuclear Generating Station, Units 2 and 3

Dated: August 31, 1984

PART 2. FINANCIAL INFORMATION

2.1 Financial statements from the three most recent fiscal years. Attached are the following:

2.1.1 Balance Sheet. Annual Report to Shareholders for calendar year 1983 (pages 26-27), and S.E.C. Form 10Q for the quarter ended June 30, 1984 (pages 4-5).

2.1.2 Income Statement. Annual Report to Shareholders for calendar year 1983 (page 25), and S.E.C. Form 10Q for the quarter ended June 30, 1984 (page 3).

2.1.3 Statements of Sources of Funds Used for Construction Expenditures. Annual Report to Shareholders for calendar year 1983 (page 28), and S.E.C. Form 10Q for the quarter ended June 30, 1984 (page 6).

PART 3. PROJECT INFORMATION

3.2 (3.2.1 - 3.2.4) (See also Appendix 3.2(Supp))

Liquid Radwaste Holdup Capacity Augmentation.

This improvement to the liquid radwaste facility will provide additional shielded surge capacity for this system to ensure efficient and adequate treatment of radioactive liquid wastes. This improvement will assure that liquid radwaste discharges are maintained at ALARA levels. Improvements will include additional tanks, pipes, pumps, valves and shielding, as well as related mechanical, electrical, instrumentation and monitoring equipment. See Appendix 3.2A(Supp).

Modifications to the Solidified Resin Handling Facility.

These modifications are to improve handling and storage of low level radioactive solid wastes. The system, initially designed and installed to solidify and handle spent resin, is being modified to assure compliance with new solid radwaste disposal requirements. This improvement provides for additional equipment to move solidified wastes to different locations on the site, and ultimately to the interim solid waste storage facility described below. Solid wastes will be stored in new shielded casks, loaded by a straddle crane, and placed on a truck and trailer. See Appendix 3.2B(Supp).

Steam Generator Blowdown Spent Resin Treatment Facilities.

Effluent treatment equipment will be added to the steam generator blowdown demineralizer system which is part of the blowdown processing system. The new equipment will include pumps, pipes, pipe supports, conduits, cables, instrumentation and controls.

Laundry and Decontamination Facility

The laundry and decontamination facility provides for storage and recycling of low level radioactively contaminated clothing, respirators, equipment and tools. This facility will be located on top of the existing radwaste structure. Equipment within the facility will include laundry and dry cleaning machines and dryers for contaminated clothing as well as a filtered exhaust system and sanitary waste equipment. The facility also includes respirator decontamination equipment. See Appendix 3.2C(Supp).

Interim Solid Waste Storage Facilities.

The interim solid waste storage facilities will include two separate structures: a solid waste storage building and a dry active waste storage building. These facilities will be used for storage of low level radioactive solid wastes. The solid waste storage building will be used primarily to store solidified or otherwise stabilized radioactive solid wastes. Initially, the solid waste storage building will be used to store both solidified wastes and dry active wastes. Subsequent construction of the dry active waste storage building will permit separate storage for solidified and dry active wastes. After offsite solid radwaste disposal becomes possible, the solid waste disposal

building again will be used to store both solidified wastes and dry active wastes. The solid waste disposal building also will be used to package solid wastes for offsite transportation.

Fuel Handling Buildings.

Units 2 and 3 have separate fuel handling buildings. Each fuel handling building houses facilities to offload and store incoming fuel, handle irradiated fuel assemblies removed from the reactor, temporarily store irradiated fuel assemblies that are not yet spent but are waiting to be returned to the reactor, store irradiated spent fuel assemblies prior to shipment to a final storage/disposal facility, and load irradiated spent fuel assemblies into casks for shipment. The spent fuel pool within each fuel handling building was designed and will function, in part, to dispose of irradiated spent fuel assemblies by storing them submerged in a pool of recirculating water. Each pool contains racks capable of storing 800 irradiated fuel assemblies. The spent fuel pools will remove heat and radioactive material given off by these irradiated fuel assemblies. A portion of each fuel handling building houses (or will house) equipment used to decontaminate radioactively contaminated tools and equipment. The fuel handling buildings also are equipped to remove radioactive particles in the air prior to its release or recirculation. See Appendix 3.2D(Supp).

Dry Active Waste Handling and Disposal Facilities

This additional facility will provide for the handling of dry active waste to be shipped offsite for burial. It will include equipment for onsite classification and segregation of dry active wastes. This will minimize handling of dry active wastes and minimize dry active waste storage requirements.

Make Up Water Demineralizer Waste Treatment System

Spent resins in make up water demineralizers will be regenerated using dilute solutions of sulfuric acid and sodium hydroxide. Spent resins also will be rinsed with water to remove chemical residues. Approximately 100,000 gallons of effluent will be produced per regeneration, and there will be five regenerations per day. The effluent will be collected in a waste sump and pumped to tanks where neutralization equipment will provide treatment. Following treatment, the effluent will be discharged to the circulating water system. See Appendix 3.2E(Supp).

Non-radioactive Wastewater Handling System

This facility will provide a system for the removal of oil, grease and other pollutants prior to discharge to the ocean. All non-nuclear sump and drain wastewater presently is routed to an oily waste separator. If the separator is not producing an effluent which meets NPDES permit limitations, unseparated wastewaters will be discharged to the ocean.

3.2.5 An Engineering Certification based on an independent review of a qualified engineer is attached as Appendix 3.2.5(Supp).

3.3 Estimated Construction Period

3.3.1 Starting Date

Liquid Radwaste Holdup Capacity Augmentation: 1985

Modifications to the Solidified Resin Handling Facilities: 1984

Steam Generator Blowdown Spent Resin Treatment Facilities: 1986

Laundry and Decontamination Facilities: 1984

Interim Solid Waste Storage Facility: 1985

Fuel Handling Building: 1972

3.3.2 Completion Date

Liquid Radwaste Holdup Capacity Augmentation: 1987

Modifications to the Solidified Resin Handling Facilities: 1984

Steam Generator Blowdown Spent Resin Treatment Facilities: 1987

Laundry and Decontamination Facilities: 1985

Interim Solid Waste Storage Facility: 1986

Fuel Handling Building: 1979

3.4 An architect-engineer has not yet been selected for facilities described in this Supplement.

PART 4. BOND ISSUE

This Part 4 supercedes Part 4 of the Application, dated October 27, 1983.

4.1 Estimated total amount of the financing with a tabulation use of bond proceeds. $367,000,000

4.1.1 Project cost (from Part 3). $ 282,807,000

4.1.2 Legal, printing and related fees.

Rating Fee	$ 183,000
PUC Filing Fee	189,000
Printing	100,000
Accounting Fee	26,000
Legal	300,000
Trustee	120,000
Miscellaneous	40,000
	$ 958,000

4.1.3 Financing costs and fees.

Underwriters Discount $ 4,588,000

4.1.4 Capitalized interest. $ 76,712,000

4.1.5 Other costs, including CPCFA and guaranteed fees:

Administrative fees which include $10,000 filing fees $ 1,835,000

4.2 Estimated target date of financing.

Before January 1, 1985

4.3 Estimated terms of financing.

Still to be determined.

4.4 Type of bond sale (private placement, underwritten offering).

Still to be determined.

APPLICANT CERTIFICATION

I hereby certify that the foregoing application, as supplemented, to the best of my knowledge and belief, contains no false or incorrect information or data; and the application, as supplemented, including exhibits and attachments hereto, is descriptive of the project.

I further respresent that Southern California Edison Company is familiar with the provisions of the California Pollution Control Financing Authority Act and its regulations, as amended.

Michael L. Noel

Vice President and Treasurer

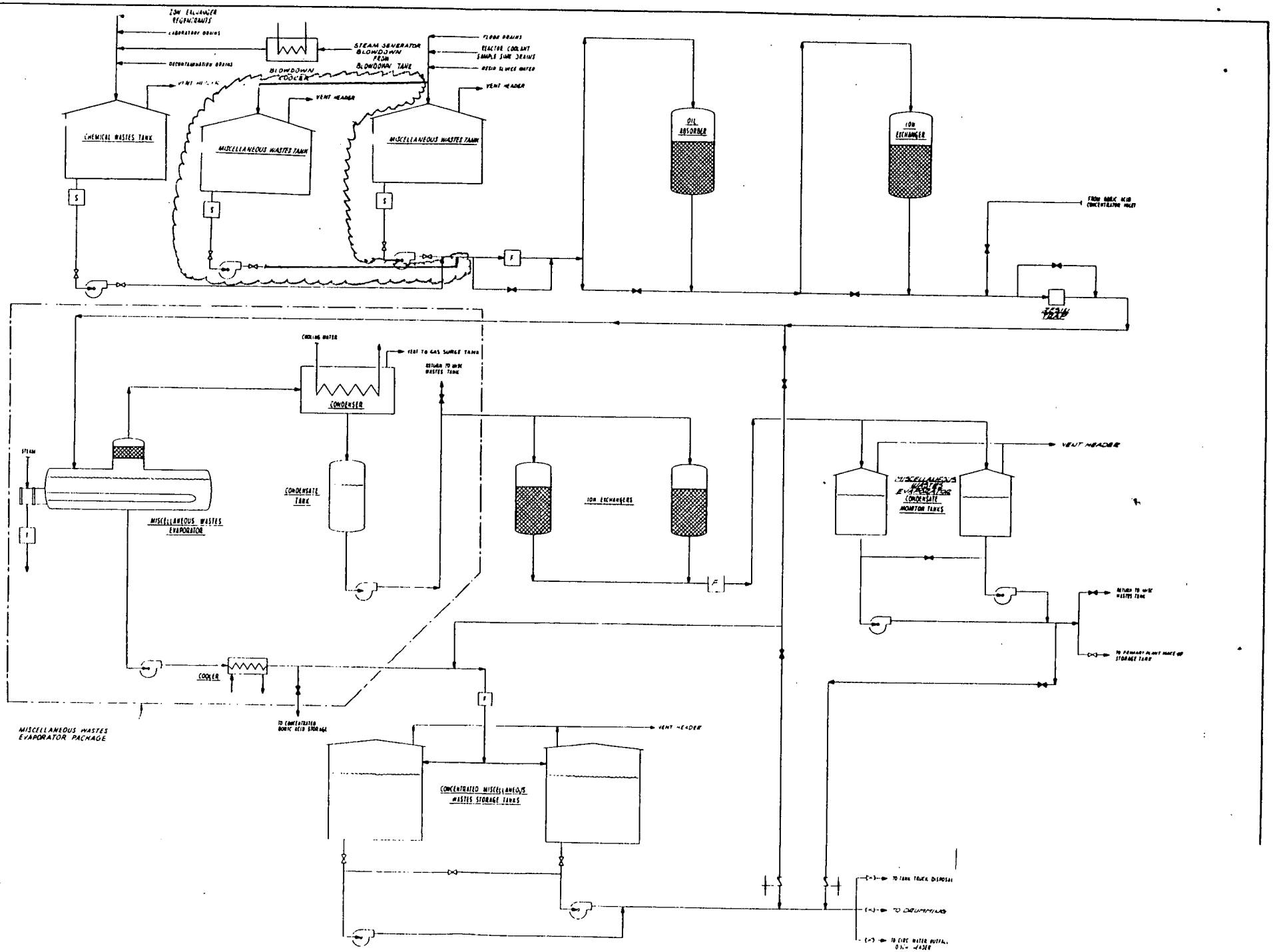
Dated: August 31, 1984

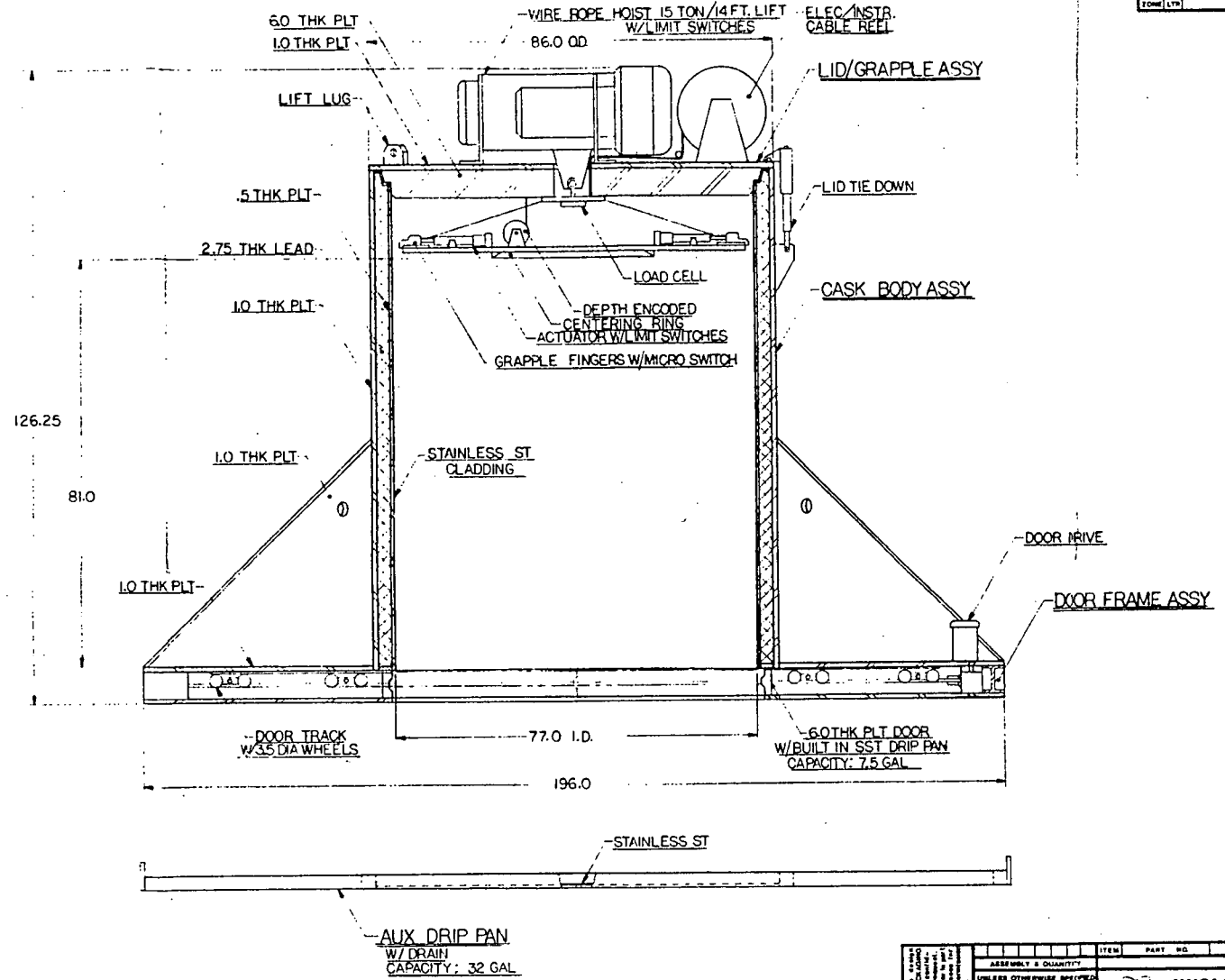
SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 2 AND 3
ESTIMATED POLLUTION CONTROL, SOLID WASTE DISPOSAL
AND SEWAGE DISPOSAL FACILITY COSTS

	SYSTEM	COST ($000)
1.	Existing Radwaste Facilities	
	a. Liquid and Coolant Radwaste Systems	
	b. Coolant and Boric Acid Recycle System	
	c. Gaseous Radwaste System	
	d. Radwaste Structure	
	e. Steam Generator Blowdown Processing System	
	f. Fuel Handling Buildings	
		186,447
2.	Existing Non-Radwaste Facilities	
	a. Cooling Water System	
		30,594

SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 2 AND 3
ESTIMATED POLLUTION CONTROL, SOLID WASTE DISPOSAL
AND SEWAGE DISPOSAL FACILITY COSTS

SYSTEM	COST ($000)
3. Planned Radwaste Facility Improvements	
a. Solidified Resin Handling System	
b. Interim Waste Storage Facilities	
c. Solidification Process Sampling System	
d. High Density Compaction Facility	
e. Incineration (Volume Reduction) Facility	
f. Liquid Radwaste Holdup Capacity Augmentation	
g. Filter Handling System	
h. DAW Handling and Disposal Facility	
i. Containment Purge Radiation Monitoring System	
j. Make-Up Treatment Plant Modifications	
k. Steam Generator Blowdown Spent Resin Treatment Facilities	
l. Full Flow Condensate Polishing Demineralizer Resin Regeneration System	
m. Laundry and Decontamination Facility	
n. Fuel Handling Building Decontamination Modifications	
	59,762
4. Planned Non-Radwaste Facility Improvements	
a. Nonradioactive Wastewater Handling System	
	6,004
TOTAL	282,807


ION EXCHANGER REGENERANTS
LABORATORY DRAINS
DECONTAMINATION DRAINS
STEAM GENERATOR BLOWDOWN FROM BLOWDOWN TANK
BLOWDOWN COOLER
FLOOR DRAINS
REACTOR COOLANT SAMPLE SINK DRAINS
RESIN SLURRY WATER
VENT HEADER
CHEMICAL WASTES TANK
MISCELLANEOUS WASTES TANK
MISCELLANEOUS WASTES TANK
OIL ABSORBER
ION EXCHANGER
FROM BORIC ACID CONCENTRATOR HOLDUP
SEWER
COOLING WATER
VENT TO GAS SURGE TANK
RETURN TO MISC WASTES TANK
CONDENSER
STEAM
MISCELLANEOUS WASTES EVAPORATOR
CONDENSATE TANK
ION EXCHANGERS
VENT HEADER
MISCELLANEOUS WASTES EVAPORATOR CONDENSATE MONITOR TANKS
RETURN TO MISC WASTES TANK
TO PRIMARY PLANT MAKE UP STORAGE TANK
COOLER
TO CONCENTRATED BORIC ACID STORAGE
MISCELLANEOUS WASTES EVAPORATOR PACKAGE
VENT HEADER
CONCENTRATED MISCELLANEOUS WASTES STORAGE TANKS
TO TANK TRUCK DISPOSAL
TO DRUMMING
TO CIRC WATER OUTFALL CANAL HEADER

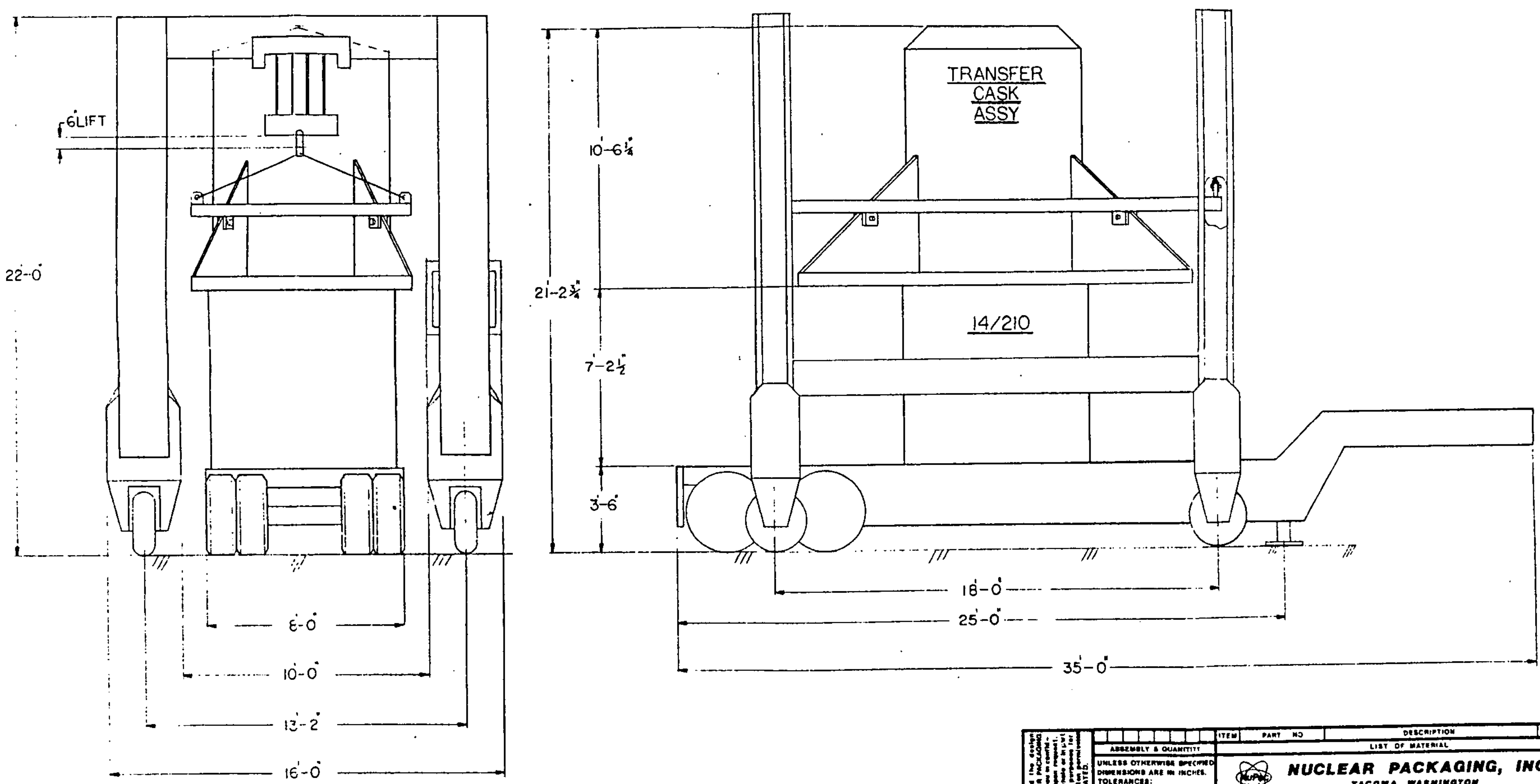


NOTES: UNLESS OTHERWISE SPECIFIED

NUCLEAR PACKAGING, INC.
TACOMA, WASHINGTON

GENERAL ARRANGEMENT
TRANSFER CASK
SAN ONOFRE NUCLEAR POWER PLANT

DWG NO. TK-20-200D



NOTES: UNLESS OTHERWISE SPECIFIED

ITEM	PART NO	DESCRIPTION	MATERIAL
LIST OF MATERIAL			

ASSEMBLY & QUANTITY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCES:
FRACTIONS ±
ANGLES ±
3 PLACE DECIMALS ±
2 PLACE DECIMALS ±
1 PLACE DECIMALS ±

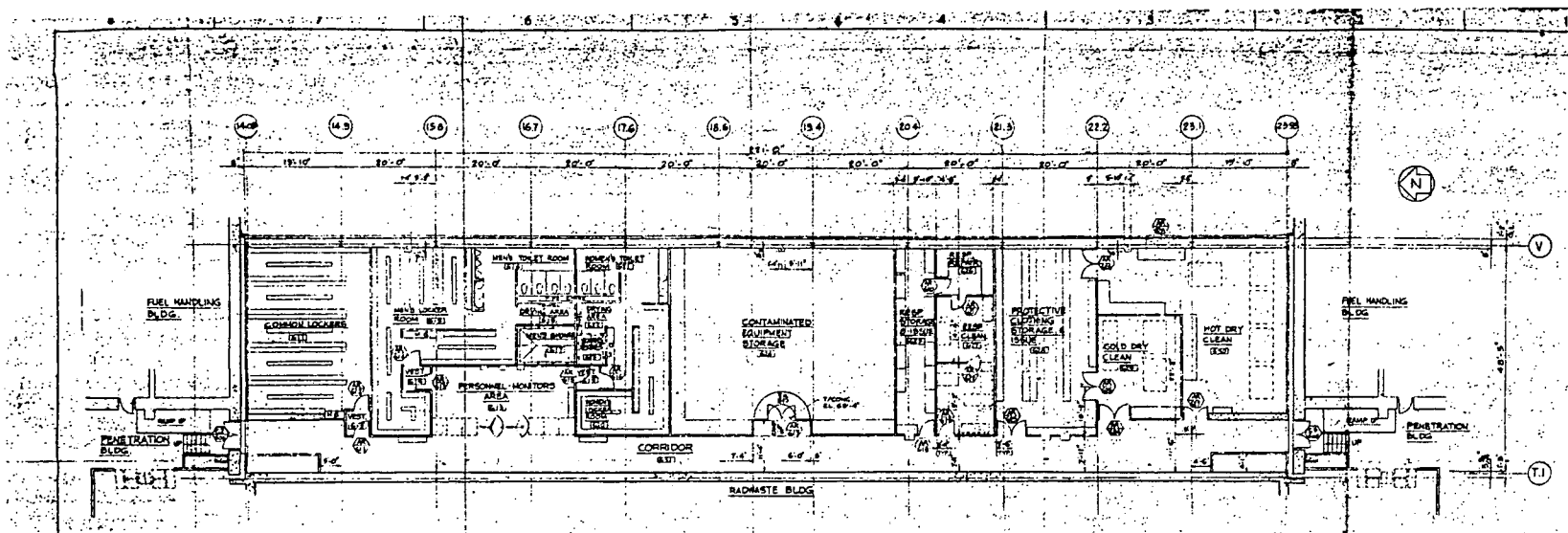
DO NOT SCALE THIS DRAWING

NEXT ASSY | USED ON
APPLICATION

NUCLEAR PACKAGING, INC.
TACOMA, WASHINGTON

GENERAL ARRANGEMENT
INTERFACE
SAN ONOFRE NUCLEAR POWER PLANT

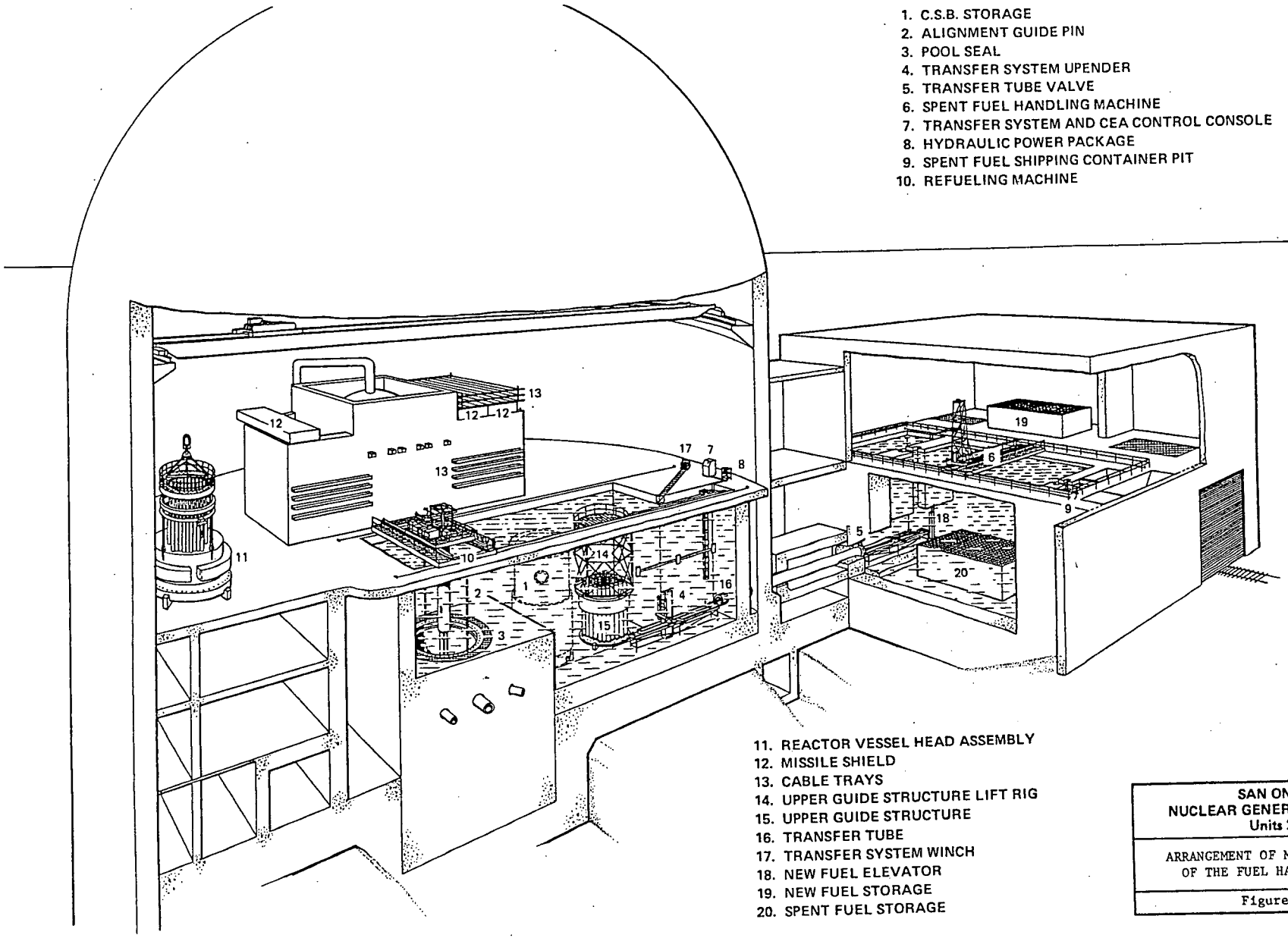
DRAWN P.L.P. 4/84 | Q.A. | SCALE: 1/2 = 1" | WT.
REV | SHEET 1 OF 6
CHECK | DWG. REL. | DWG SIZE D | DWG NO IK-20-200D
ENGR. | PROD REL.



FLOOR PLAN EL 67'-10"

PRELIMINARY
RELEASED BY _____
DATE _____

1. C.S.B. STORAGE
2. ALIGNMENT GUIDE PIN
3. POOL SEAL
4. TRANSFER SYSTEM UPENDER
5. TRANSFER TUBE VALVE
6. SPENT FUEL HANDLING MACHINE
7. TRANSFER SYSTEM AND CEA CONTROL CONSOLE
8. HYDRAULIC POWER PACKAGE
9. SPENT FUEL SHIPPING CONTAINER PIT
10. REFUELING MACHINE



11. REACTOR VESSEL HEAD ASSEMBLY
12. MISSILE SHIELD
13. CABLE TRAYS
14. UPPER GUIDE STRUCTURE LIFT RIG
15. UPPER GUIDE STRUCTURE
16. TRANSFER TUBE
17. TRANSFER SYSTEM WINCH
18. NEW FUEL ELEVATOR
19. NEW FUEL STORAGE
20. SPENT FUEL STORAGE

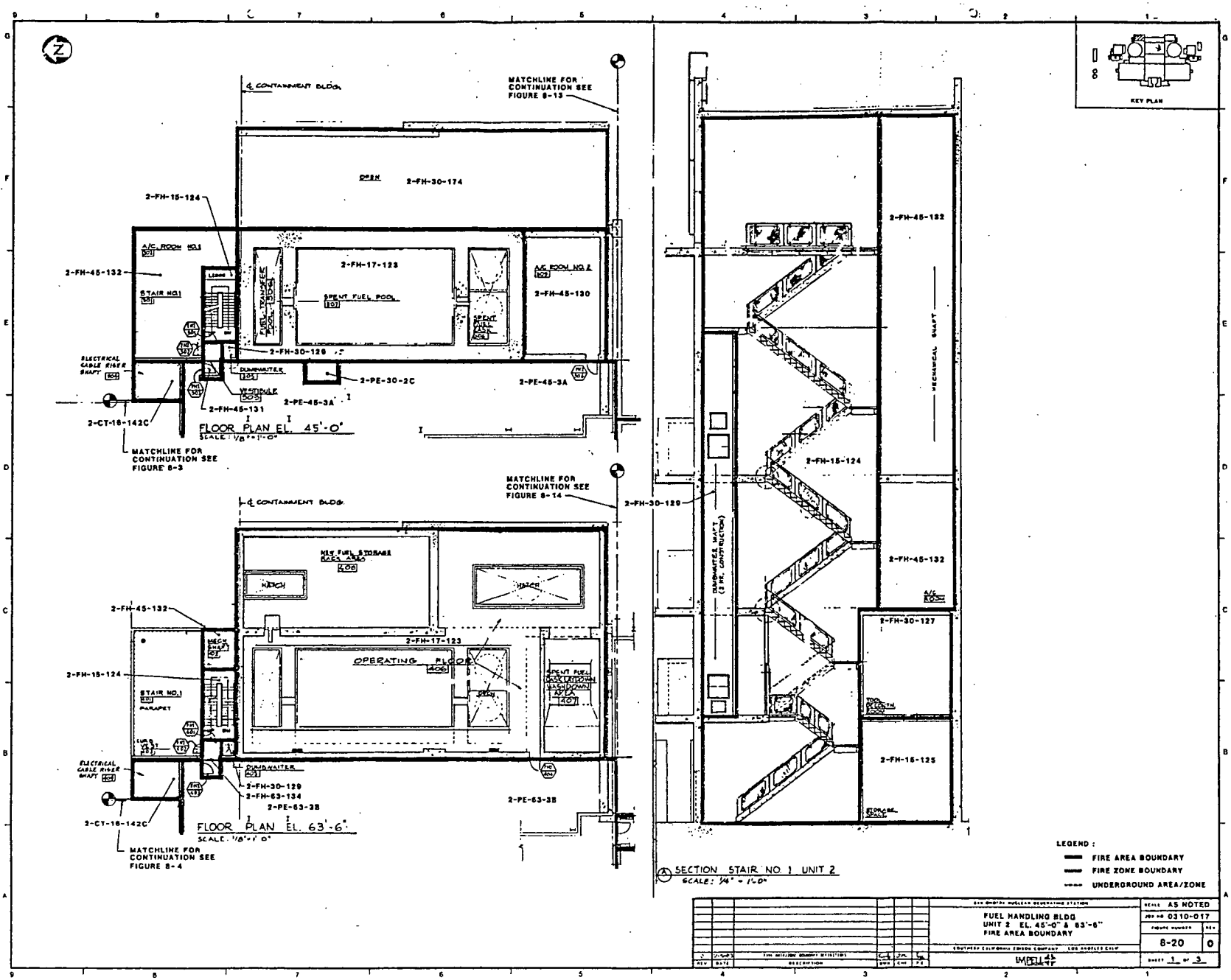
Updated

SAN ONOFRE NUCLEAR GENERATING STATION
Units 2 & 3

ARRANGEMENT OF MAJOR COMPONENTS OF THE FUEL HANDLING SYSTEM

Figure 9.1-3

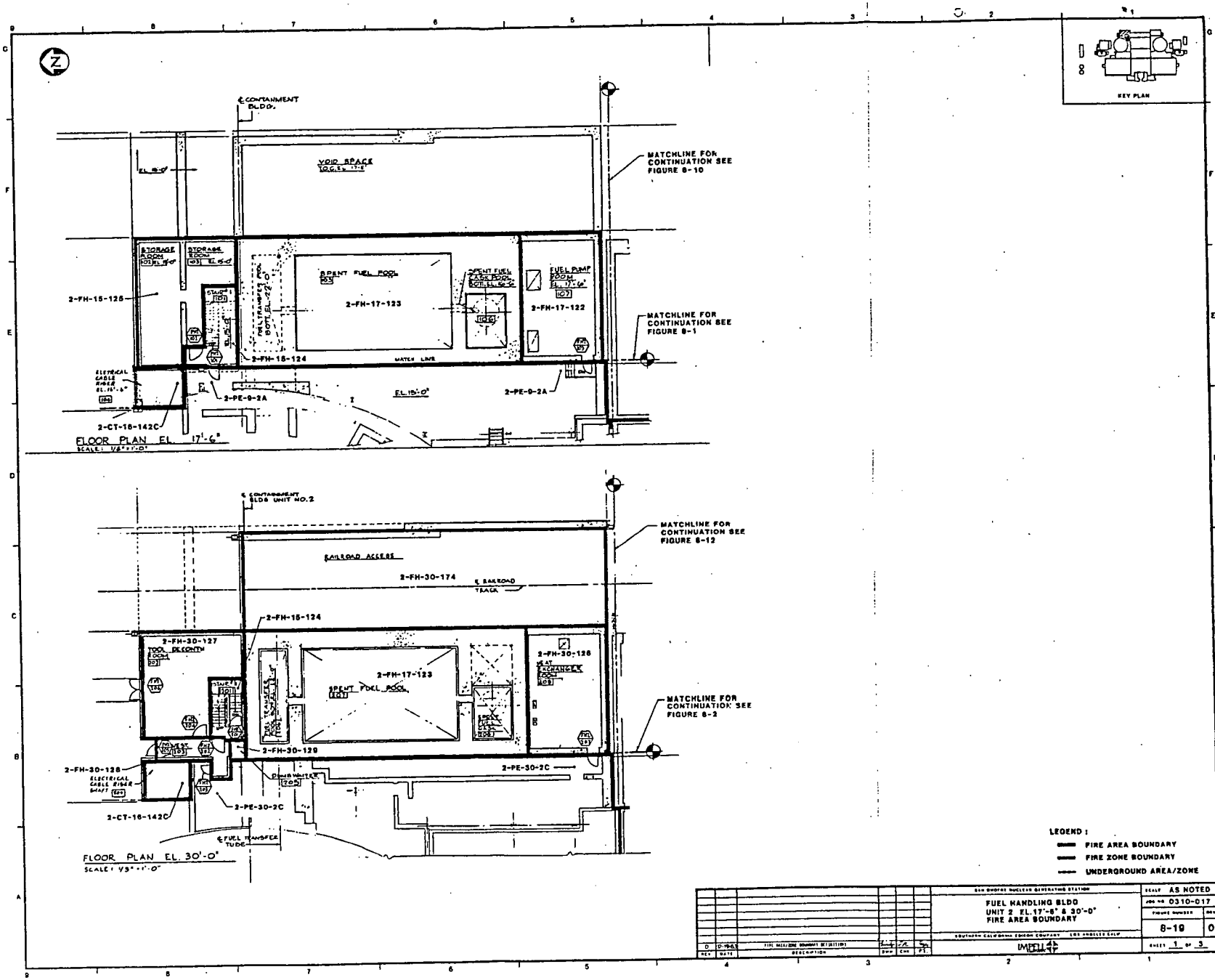
10079-11D-438
21JL6

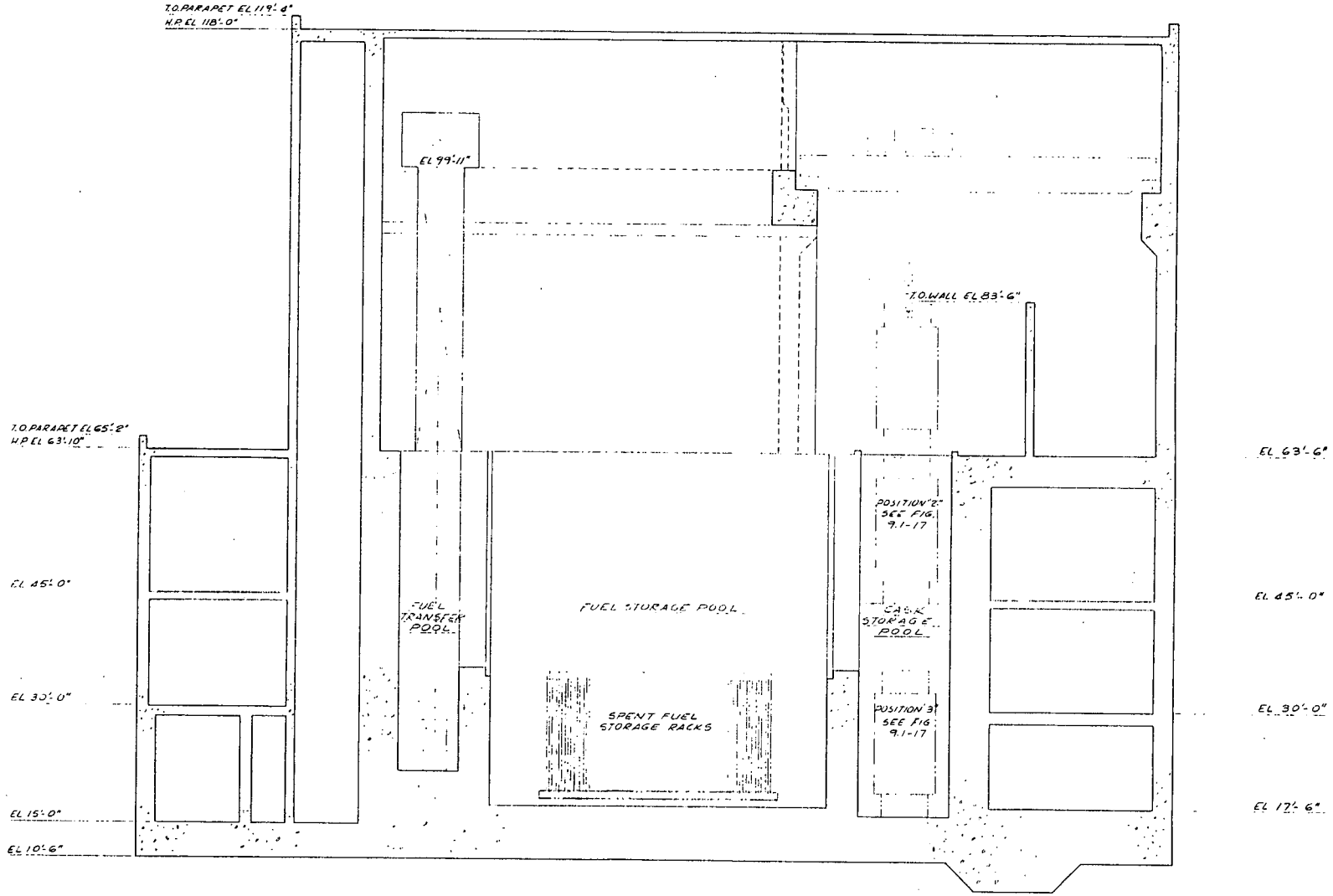


SCALE	AS NOTED
JOB NO	0310-017
FIGURE NUMBER	8-20
REV	0
SHEET	1 OF 3

FUEL HANDLING BLDG
UNIT 2 EL. 45'-0" & 63'-6"
FIRE AREA BOUNDARY

SOUTHERN CALIFORNIA EDISON COMPANY LOS ANGELES CALIF.


℄ CONTAINMENT BLDG.
VOID SPACE
MATCHLINE FOR CONTINUATION SEE FIGURE 8-10
STORAGE ROOM
STORAGE ROOM
SPENT FUEL POOL
SPENT FUEL CASK POOL
FUEL PUMP ROOM
2-FH-15-125
2-FH-17-123
2-FH-17-122
2-FH-15-124
MATCH LINE
MATCHLINE FOR CONTINUATION SEE FIGURE 8-1
ELECTRICAL CABLE RISER
EL. 15'-0"
2-PE-9-2A
2-PE-9-2A
2-CT-15-142C
FLOOR PLAN EL. 17'-6"
℄ CONTAINMENT BLDG UNIT NO. 2
MATCHLINE FOR CONTINUATION SEE FIGURE 8-12
RAILROAD ACCESS
2-FH-30-174
℄ RAILROAD TRACK
2-FH-15-124
2-FH-30-127
TOOL DECONTN
2-FH-17-123
SPENT FUEL POOL
2-FH-30-126
HEAT EXCHANGER
MATCHLINE FOR CONTINUATION SEE FIGURE 8-2
2-FH-30-129
2-FH-30-128
ELECTRICAL CABLE RISER SHAFT
2-PE-30-2C
2-PE-30-2C
2-CT-15-142C
℄ FUEL TRANSFER TUBE
FLOOR PLAN EL. 30'-0"
KEY PLAN
LEGEND :
FIRE AREA BOUNDARY
FIRE ZONE BOUNDARY
UNDERGROUND AREA/ZONE
FUEL HANDLING BLDG
UNIT 2 EL. 17'-6" & 30'-0"
FIRE AREA BOUNDARY
SCALE AS NOTED
JOB NO. 0310-017
FIGURE NUMBER 8-19
SHEET 1 OF 3



SECTION A 9.1-16

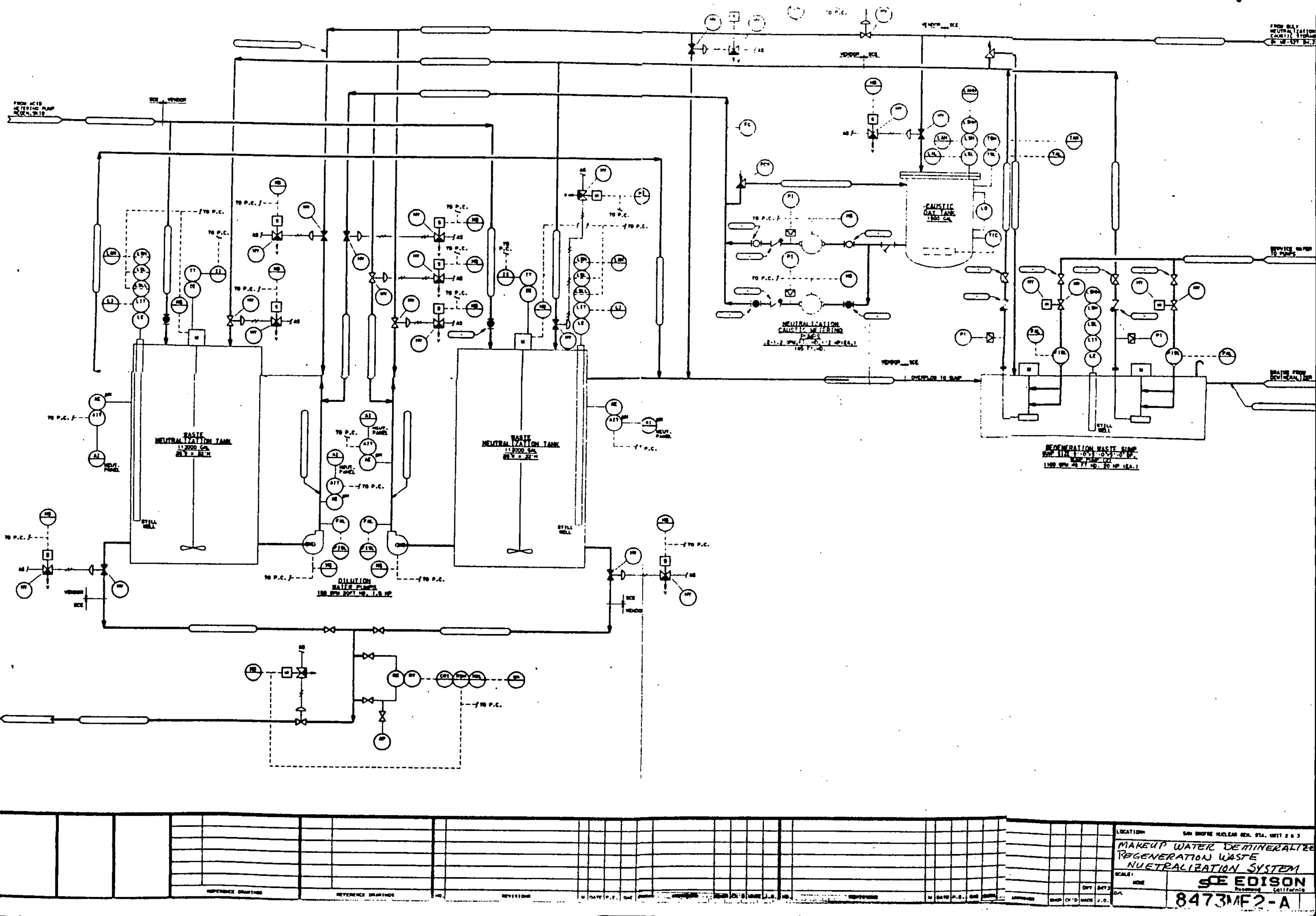
Updated

SAN ONOFRE NUCLEAR GENERATING STATION Units 2 & 3

FUEL HANDLING BUILDING
CASK LIFT AT STORAGE POOL

Figure 9.1-26

10079-12A-135
3AU7


WASTE NEUTRALIZATION TANK
WASTE NEUTRALIZATION TANK
DILUTION WATER PUMPS
CAUSTIC DAY TANK
NEUTRALIZATION CAUSTIC METERING PUMPS
REGENERATION WASTE SUMP
STILL WELL
TO P.C.
MAKEUP WATER DEMINERALIZER
REGENERATION WASTE
NUETRALIZATION SYSTEM
SCE EDISON
8473MF2-A

ENGINEERING CERTIFICATION

by

RUSSELL B. MACPHERSON, P.E.

Data contained in this supplement has been prepared and furnished to me by Southern California Edison Company. Based on my independent review of this information, I conclude that:

- The project, as designed, is in furtherance of the purpose of abating air and/or water pollution, and disposing of solid and liquid wastes.
- The project has no significant purpose other than pollution control and solid and liquid waste disposal (except as disclosed in this supplement).
- The project will further compliance with applicable Federal, State or local pollution control standards and requirements.
- The project components described in the supplement are all necessary for the proper installation and operation of the project as a pollution control and solid and liquid waste disposal system, and the cost estimates provided are reasonable as of the time they were made.

The undersigned further certifies that to the best of his knowledge there are no other facts, estimates or circumstances that would materially change the facts, descriptions, characterizations, estimates or projections set forth in this Engineering Certificate.

Dated: August 30, 1984

Russell B. MacPherson

Russell B. MacPherson, P.E.