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 RECIP. NAME RECIPIENT AFFILIATION

Document Control Branch (Document Control Desk)

SUBJECT: Requests meeting w/NRC on 880602 to discuss NRC requirements applicable to spent fuel storage program.

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Southern California Edison Company

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M. O. MEDFORD
MANAGER OF NUCLEAR ENGINEERING
AND LICENSING

May 9, 1988

TELEPHONE
(818) 302-1749

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

Gentlemen:

Subject: Increasing Spent Fuel Storage
Docket Nos. 50-361 and 50-362
San Onofre Nuclear Generating Station
Units 2 and 3

Because there is no repository currently available and none is planned to be available in the near future to receive spent nuclear fuel generated from the operation of the San Onofre Nuclear Generating Station, Southern California Edison (SCE) is developing plans to provide additional spent fuel storage capacity at San Onofre, Units 2 and 3. Prior NRC review and approval of the plant modifications will be formally requested by SCE through submittal of license amendment applications in accordance with the requirements of 10 CFR 50.90. In order to promote understanding and inclusion of all currently applicable NRC requirements in the spent fuel storage program, SCE hereby requests a meeting with appropriate members of the NRC technical staff on June 2, 1988. During this meeting, SCE would like to present the proposed plan for complying with all applicable NRC requirements and discuss the scope and technical interpretation of these requirements. It is expected that these discussions, based on the currently available NRC guidance documents, would be of significant benefit to both SCE and the NRC in the development of the complete scope of information in the detail needed by the NRC to promote NRC review and approval of the upcoming license amendment request on a schedule compatible with SCE's spent fuel storage needs.

Please note that SCE is planning to submit a preliminary license amendment report in July, 1988 and a formal license amendment request in November, 1988. Based on these two submittals and associated meetings when SCE would like to present and discuss the information in these submittals to the NRC staff, SCE is requesting a preliminary NRC staff technical assessment by March 15, 1989 concerning compliance with NRC requirements. SCE would like this preliminary technical assessment by March 15, 1989 because fabrication of the new spent fuel racks must begin at that time to meet the SCE project

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May 9, 1988

schedule requirements. SCE would like to have some assurance of the acceptability of the proposed spent fuel rack and support systems design prior to authorizing rack fabrication which must begin before a formal license amendment would be expected to be issued by the NRC.

Enclosed for your information, and to define more specifically the subject areas to be addressed during the requested meeting, is a preliminary set of meeting handouts which is a detailed meeting agenda. In order to allow reasonable time for the in depth presentation and associated discussion between SCE, SCE contractors and the NRC staff, a meeting duration of approximately four to six hours on June 2 is requested.

Please let me know if the requested meeting can be scheduled for June 2, 1988 or if you have any questions or need additional information which would be useful in preparing for the meeting.

Very truly yours,

A handwritten signature in dark ink, appearing to read "M. O. Melford", with a stylized flourish underneath.

Enclosure

cc: D. E. Hickman, NRC Project Manager
F. R. Huey, NRC Senior Resident Inspector, San Onofre Units 1, 2 and 3

PRELIMINARY

**SAN ONOFRE NUCLEAR GENERATING
STATION UNITS 2 & 3**

**SPENT FUEL POOL RERACK
PRESENTATION**

JUNE 1988

AGENDA

- I. INTRODUCTION (SCE)**
- II. SCHEDULE AND MILESTONES (SCE)**
- III. HIGH DENSITY SPENT FUEL RACKS (RACK VENDOR)**
- IV. FUEL HANDLING BUILDING (BECHTEL)**
- V. SYSTEM EVALUATIONS (BECHTEL)**
- VI. CONSTRUCTION CONSIDERATIONS (BECHTEL)**
- VII. RADIOLOGICAL EVALUATION (BECHTEL)**
- VIII. SUMMARY (SCE)**

PRELIMINARY

I. INTRODUCTION

(SCE)

I. INTRODUCTION PRELIMINARY

A. SCOPE

1. NEED FOR INCREASED STORAGE

- A. APPROXIMATELY 480 SPENT FUEL ELEMENTS IN
POOL BY FALL 1989**
- B. SINGLE CORE OFF-LOAD CAPABILITY THROUGH
1993**
- C. SPENT FUEL POOL FULL 1997**
- D. COST BENEFIT EVALUATION**

2. INCREASE STORAGE CAPACITY

- A. INCREASE FROM 800 TO APPROXIMATELY 1587
ASSEMBLIES PER UNIT**
- B. STORAGE CAPACITY TO YEAR 2002 WITHOUT
CONSOLIDATION**
- C. STORAGE CAPACITY TO YEAR 2013 WITH 2:1
CONSOLIDATION**

I. INTRODUCTION

PRELIMINARY

3. FUEL HANDLING BUILDING AND POOL DESCRIPTION

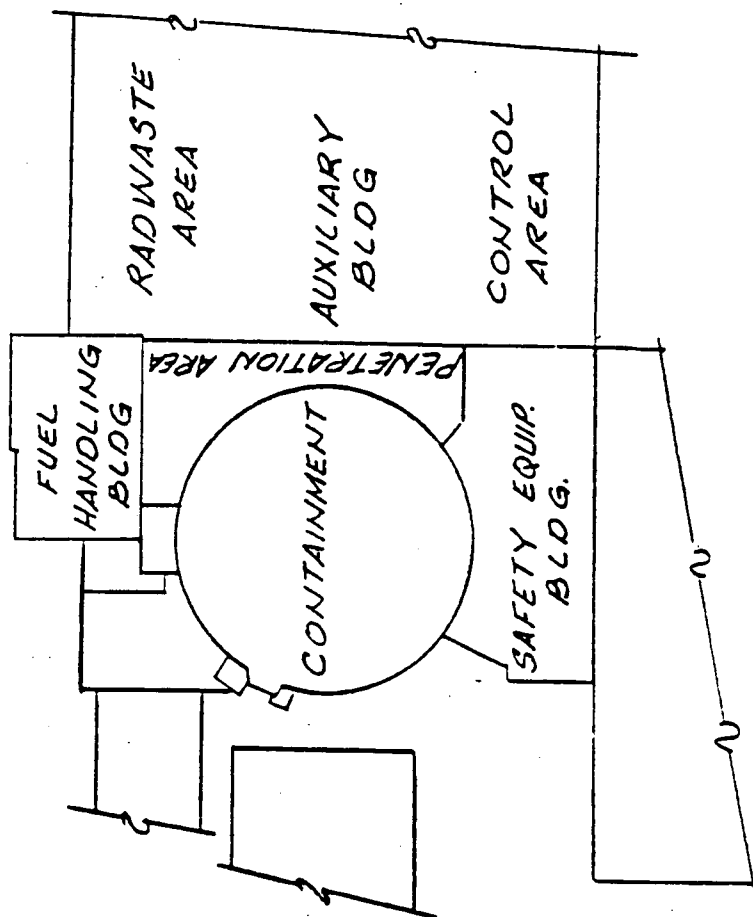
A. FUEL HANDLING BUILDING

- 1. CONVENTIONAL REINFORCED CONCRETE
STRUCTURE**
- 2. OVERALL PLAN DIMENSION - 134 X 86 FEET**
- 3. HEIGHT 110 FEET**
- 4. SEISMIC CATEGORY I, QUALITY CLASS II**

B. SPENT FUEL POOL

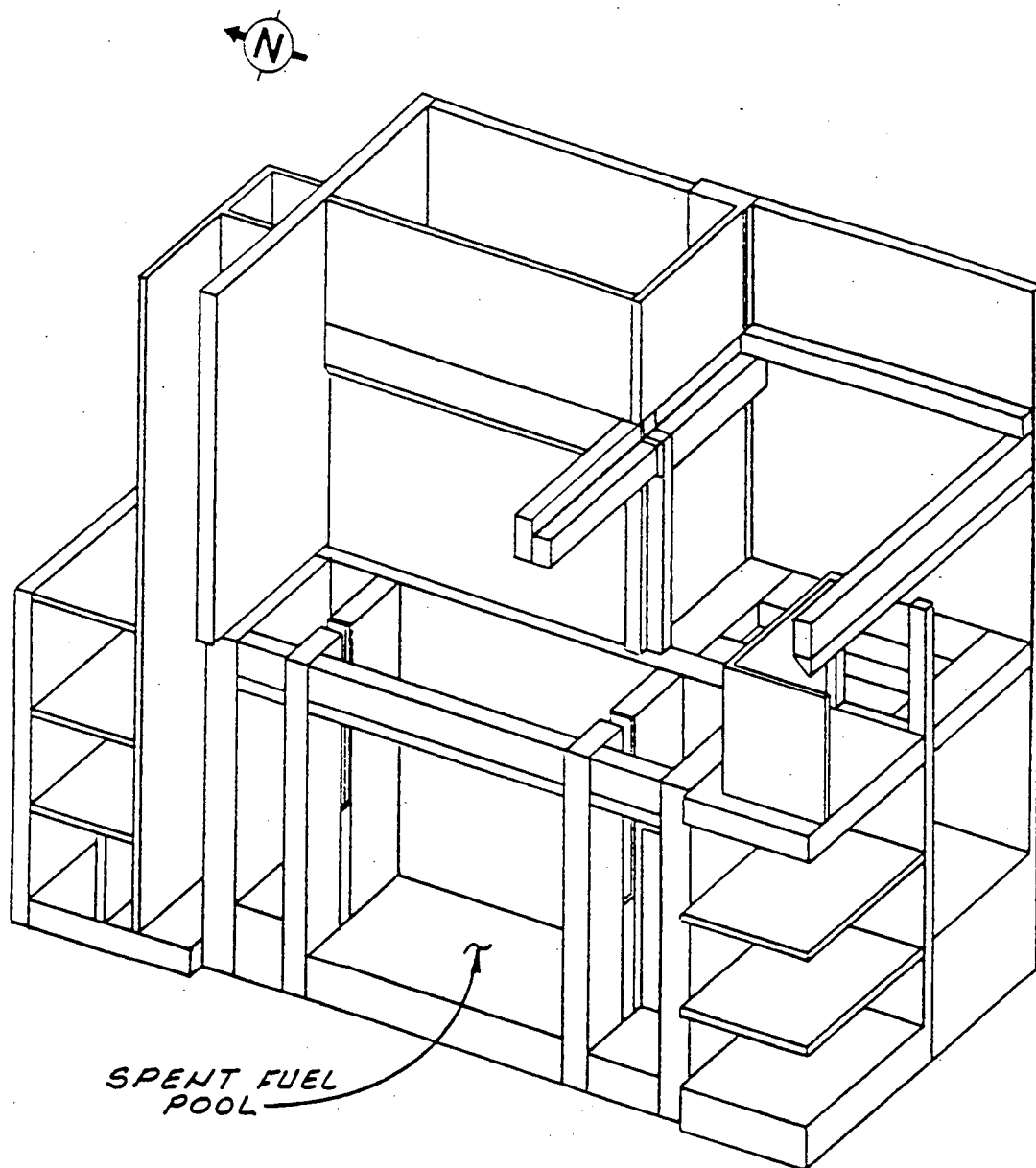
- 1. INTERCONNECTED WITH FUEL TRANSFER POOL
AND SPENT FUEL CASK LOADING PIT**
- 2. PLAN DIMENSION - 44 X 23 FEET**
- 3. DEPTH - APPROXIMATELY 40 FEET**
- 4. SEISMIC CATEGORY I, QUALITY CLASS II**

PRELIMINARY



UNIT-2 PARTIAL PLAN

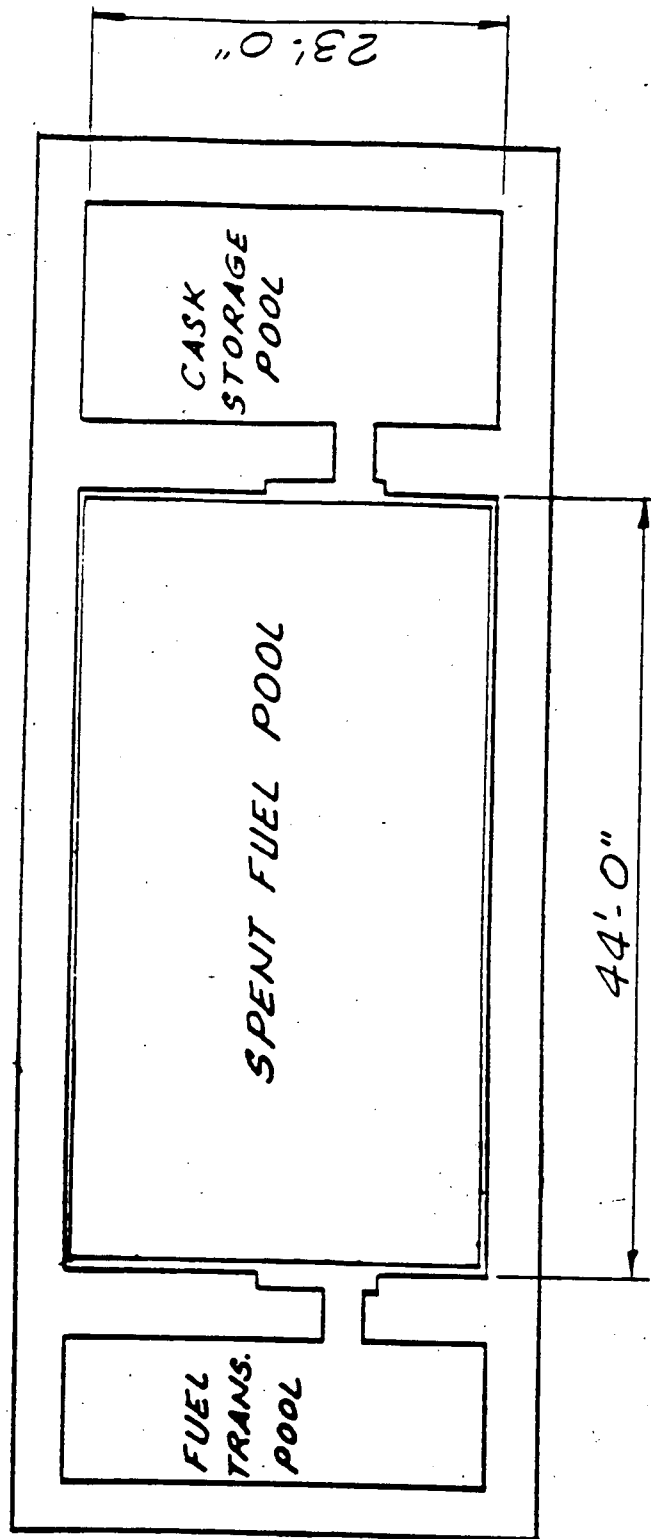
PRELIMINARY



FUEL HANDLING BUILDING
UNIT 2 LOOKING EAST

(ROOF, WEST WALL, & SOUTH WALL REMOVED
FOR CLARITY)

FUEL HANDLING POOL



PRELIMINARY

PARTIAL PLAN
AT ELEV. 63'-6"

PRELIMINARY

I. INTRODUCTION

4. RACK DESIGN PARAMETERS

A. FREE STANDING RACKS

B. FIXED BORAFLEX POISON

C. 2 REGION DESIGN

**1. 342 LOCATIONS (APPROXIMATE) -
NEW AND RECENTLY IRRADIATED FUEL**

**2. 1245 LOCATIONS (APPROXIMATE) -
IRRADIATED AND CONSOLIDATED FUEL**

**D. LICENSE FOR 5.0% ENRICHED FUEL
(5.1% DESIGN)**

E. STORE UNITS 1, 2, AND 3 FUEL

I. INTRODUCTION

PRELIMINARY

B. LICENSING APPROACH

1. LICENSING AMENDMENT APPLICATIONS

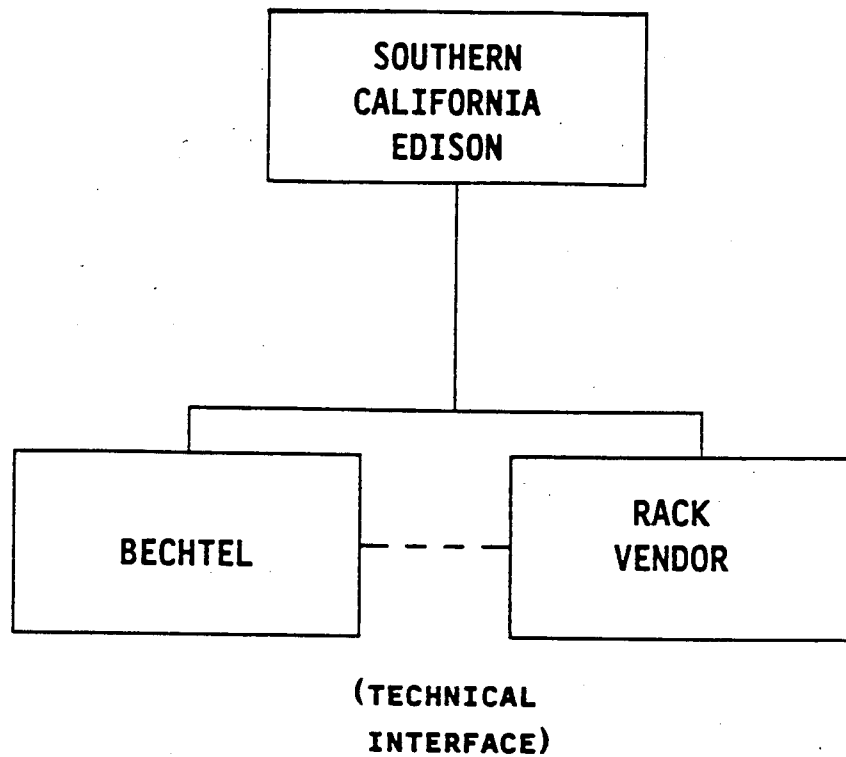
- A. LICENSE FOR NORMAL FUEL STORAGE**
- B. SUBSEQUENT LICENSE FOR CONSOLIDATED FUEL STORAGE**

2. LICENSING CRITERIA

- A. UFSAR CRITERIA FOR BUILDING AND SUPPORT SYSTEMS**
- B. CURRENT CRITERIA FOR RACKS (OT POSITION PAPER / SRP'S)**
 - 1. SEISMIC DESIGN**
 - 2. BORAFLEX**
 - 3. HEAVY LOADS**
 - 4. ENVIRONMENTAL ASSESSMENT**
- C. CONSERVATIVE DESIGN INCLUDING CONSOLIDATED FUEL**
- D. AS-BUILT PLANT DATA, AS APPROPRIATE**

PRELIMINARY

I. INTRODUCTION



II. SCHEDULE AND MILESTONES
(SCE)

II. PROJECT SCHEDULE AND MILESTONES

- 6/2/88 - INITIAL MEETING WITH NRC
- 7/16/88 - SUBMITTAL OF PRELIMINARY LICENSE
AMENDMENT AND MEETING WITH NRC
- 11/15/88 - SUBMITTAL OF PROPOSED LICENSE
AMENDMENT AND MEETING WITH NRC
- 3/15/89 - NRC ASSESSMENT OF PROPOSED LICENSE
AMENDMENT
- 3/15/89 - BEGIN RACK FABRICATION FOR UNIT 2
- 5/15/89 - SER ISSUED BY NRC
- 10/2/89 - RACK DELIVERY FOR UNIT 2
- 10/89 - BEGIN RACK INSTALLATION IN UNIT 2
(COMPLETE RACK INSTALLATION DURING
CYCLE 5 OPERATION)

**III. HIGH DENSITY SPENT FUEL RACKS
(RACK VENDOR)**

III. HIGH DENSITY SPENT FUEL RACKS

OVERVIEW

- **VENDOR QUALIFICATIONS**
- **DESIGN PARAMETERS**
- **GENERAL DESIGN CRITERIA**
- **SEISMIC DESIGN CRITERIA**
- **BORAFLEX DESIGN CRITERIA**
- **STRUCTURAL ANALYSES**
- **THERMAL HYDRAULIC ANALYSES**
- **CRITICALITY ANALYSES**
- **SURVEILLANCE PROGRAM**

III. HIGH DENSITY SPENT FUEL RACK

VENDOR QUALIFICATIONS

- **FACILITIES**
- **EXPERIENCE**
- **QUALITY PROGRAM**

III. HIGH DENSITY SPENT FUEL RACKS

DESIGN PARAMETERS

- **MODULAR CONFIGURATION**
- **TWO REGIONS**
 - **REGION I-342 (APPROXIMATE)**
 - **REGION II-1245 (APPROXIMATE)**
- **FIXED POISON - BORAFLEX**
- **NORMAL AND CONSOLIDATED (2:1) FUEL**
- **ACCOMMODATE UNIT 1 AND UNIT 2-3 FUEL**
- **LICENSE FOR 5.0% ENRICHED FUEL (5.1 % DESIGN)**
- **FREE STANDING**

III. HIGH DENSITY SPENT FUEL RACKS

GENERAL DESIGN CRITERIA

- OT POSITION PAPER
- APPLICABLE REGULATORY GUIDES AND SRP
- RECENT LICENSING ISSUES
 - SEISMIC DESIGN
 - BORAFLEX

III. HIGH DENSITY SPENT FUEL RACKS

SEISMIC DESIGN CRITERIA

- **SITE SPECIFIC EARTHQUAKE**
REGULATORY GUIDE 1.60 - DESIGN RESPONSE SPECTRA
- **SRP 3.7.1 SEISMIC ANALYSIS**
- **REGULATORY GUIDE 1.29**
SEISMIC DESIGN CLASSIFICATION
- **REGULATORY GUIDE 1.61**
DAMPING VALUES FOR SEISMIC DESIGN OF NUCLEAR
POWER PLANTS
- **REGULATORY GUIDE 1.92**
COMBINING MODAL RESPONSES AND SPATIAL
COMPONENTS IN SEISMIC RESPONSE ANALYSIS

III. HIGH DENSITY SPENT FUEL RACKS

BORAFLEX DESIGN CRITERIA

- **PROPERTIES**
 - **MATERIAL**
 - **RADIATION**
 - **STABILITY**
- **FABRICATION**
- **INSTALLATION**

III. HIGH DENSITY SPENT FUEL RACKS

STRUCTURAL ANALYSES

- **SLIDING AND OVERTURNING**
- **FUEL ASSEMBLY-TO-RACK CELL INTERACTION**
- **RACK-TO-RACK INTERACTION**
- **RACK-TO-FUEL POOL INTERACTION**
- **RACK-FLUID INTERACTION**
- **MULTI-RACK INTERACTIONS**

III. HIGH DENSITY SPENT FUEL RACKS

THERMAL-HYDRAULIC ANALYSES

- **NATURAL CIRCULATION VELOCITIES THROUGH FUEL CELLS**
- **COOLANT AND FUEL SURFACE TEMPERATURES**
- **LIMITING LOADING PATTERN**
- **MAXIMUM HEAT LOAD BASED ON FULL CORE DISCHARGE**
- **NO BULK BOILING**
- **SURFACE BOILING FOR LOSS OF NORMAL FUEL POOL COOLING**
- **MAKEUP WATER REQUIREMENTS**

III. HIGH DENSITY SPENT FUEL RACKS

CRITICALITY ANALYSES

- **DESIGN BASIS**
 - **KEFF LESS THAN 0.95, WITH 95% PROBABILITY AND 95% CONFIDENCE LEVEL**
 - **OT POSITION PAPER**
- **ENRICHMENT OF 5.1 WEIGHT PERCENT U-235 IN REGION I**
- **CREDIT FOR BURNUP IN REGION II**
- **CREDIT FOR BORATED WATER UNDER ACCIDENT CONDITIONS**
- **MECHANICAL UNCERTAINTIES**

III. HIGH DENSITY SPENT FUEL RACKS

SURVEILLANCE PROGRAM

- **RACKS**
- **BORAFLEX**
- **MATERIALS AND TOOLS**
- **TEST DATA**

**IV. FUEL HANDLING BUILDING
(BECHTEL)**

IV. FUEL HANDLING BUILDING

OVERVIEW

- **UFSAR CRITERIA: APPROVED LICENSING BASES**
- **GOVERNING UFSAR LOADING COMBINATIONS**
- **EVALUATION OF LOAD COMBINATIONS**
- **INSTRUCTURE RESPONSE SPECTRA EVALUATION**
- **STRUCTURAL EVALUATION**

IV. FUEL HANDLING BUILDING

UFSAR CRITERIA: APPROVED LICENSING BASES

- **SITE SPECIFIC GROUND SPECTRA**

- **NEWMARK**
- **REG. GUIDE 1.60**
- **0.67G ZPA (DBE HORIZONTAL)**
- **VERTICAL: 2/3 OF HORIZONTAL**
- **OBE: 1/2 OF DBE**

- **TWO COMPONENT EARTHQUAKE**

- **SEPARATE N-S OR E-W HORIZONTAL INPUTS**
- **HORIZONTALS COMBINED SEPARATELY WITH VERTICAL**
- **LIMITING COMBINATION USED**

- **GOVERNING DESIGN CODES & STANDARDS**

- **AISC, MANUAL OF STEEL CONSTRUCTION,
1969 EDITION**
- **ACI 318-71, BUILDING CODE REQUIREMENTS
FOR REINFORCED CONCRETE**
- **AWS D1.1-72, STRUCTURAL WELDING CODE**
- **UBC, 1970 EDITION**

IV. FUEL HANDLING BUILDING

GOVERNING UFSAR LOADING COMBINATIONS

- ABNORMAL/EXTREME ENVIRONMENTAL CASE (DBE)

$$1.0D + 1.0L + 1.0E' + 1.0T_O + 1.0R + 1.25 H_O$$
$$1.0D + 1.0L + 1.0E' + 1.0T_A + 1.0R + 1.0H_A$$

- STRESS ALLOWABLES PER UFSAR

LOAD COMBINATION KEY:

D = DEAD LOAD
L = APPROPRIATE LIVE LOAD
T_O = NORMAL THERMAL LOADS
H_O = NORMAL PIPE EXPANSION LOAD
E = OPERATING BASIS EARTHQUAKE
E' = DESIGN BASIS EARTHQUAKE
R = PIPE RUPTURE AND MISC. MISSILE LOADS
T_A = ABNORMAL THERMAL LOAD
H_A = ABNORMAL PIPE EXPANSION LOAD

IV. FUEL HANDLING BUILDING

EVALUATION OF LOAD COMBINATIONS

- ABNORMAL/SEVERE ENVIRONMENTAL CASE (OBE)

$$\begin{aligned} &1.0D + 1.0L + 1.25E + 1.0T_A + 1.0R + 1.0H_A \\ &1.0D + 1.25E + 1.0T_A + 1.0R + 1.0H_A \end{aligned}$$

- STRESS ALLOWABLES PER UFSAR
- ADDITIONAL CRITERIA DEVELOPED, AS NECESSARY

LOAD COMBINATION KEY:

D = DEAD LOAD
L = APPROPRIATE LIVE LOAD
T_O = NORMAL THERMAL LOADS
H_O = NORMAL PIPE EXPANSION LOAD
E = OPERATING BASIS EARTHQUAKE
E' = DESIGN BASIS EARTHQUAKE
R = PIPE RUPTURE AND MISC. MISSILE LOADS
T_A = ABNORMAL THERMAL LOAD
H_A = ABNORMAL PIPE EXPANSION LOAD

IV. FUEL HANDLING BUILDING

PRELIMINARY

INSTRUCTURE RESPONSE SPECTRA EVALUATION

- o LUMPED MASS 3-DIMENSIONAL MODEL
 - MODEL CONSISTENT WITH UFSAR
 - INCORPORATE PROPOSED RACK/FUEL MASSES INTO MODEL
 - PERFORM TIME-HISTORY ANALYSES
- o DEVELOP REVISED INSTRUCTURE RESPONSE SPECTRA
- o COMPARE REVISED SPECTRA WITH UFSAR SPECTRA

IV. FUEL HANDLING BUILDING

STRUCTURAL EVALUATION

- **3-DIMENSIONAL FINITE ELEMENT MODEL**
 - **FINITE ELEMENTS (SIZE, TYPE, LOCATION) CONSISTENT WITH BUILDING PROPERTIES AND STRESS EVALUATIONS**
 - **PERFORM STATIC AND DYNAMIC STRESS ANALYSIS**
- **EVALUATION OF:**
 - **POOL WALLS**
 - **BASEMAT**
 - **LINER PLATE**
- **IMPOSED FUEL RACK LOADS (COMPRESSIVE ONLY)**
- **OTHER LOADS PER UFSAR**
- **POSTULATED CONSOLIDATED FUEL CANISTER DROP IMPACTS**

V. SYSTEM EVALUATIONS

(BECHTEL)

V. SYSTEM EVALUATIONS

OVERVIEW

- **DECAY HEAT CALCULATIONS**
- **SPENT FUEL POOL COOLING**
- **FUEL HANDLING BUILDING HVAC**

V. SYSTEM EVALUATION

DECAY HEAT CALCULATIONS

- **REVISED DECAY HEAT LOAD**
- **BTP ASB 9-2**
RESIDUAL DECAY ENERGY FOR LIGHT-WATER REACTORS
FOR LONG-TERM COOLING
- **REFUELING SCHEDULE OF ONE-HALF CORE EVERY TWO YEARS**
- **SRP 9.1.3**
SPENT FUEL POOL COOLING AND CLEANUP SYSTEM

V. SYSTEM EVALUATIONS

SPENT FUEL POOL COOLING

o APPROVED UFSAR LICENSING BASES

DESIGN

- SEISMIC CLASS I**
- QUALITY CLASS II**

NORMAL REFUELING

- MAXIMUM POOL TEMPERATURE 140°F**
- 583 ELEMENTS**
- 1 PUMP, 1 HEAT EXCHANGER (SPENT FUEL POOL COOLING SYSTEM)**
- COMPONENT COOLING WATER INLET TEMPERATURE 95°F**

CORE OFFLOAD

- MAXIMUM POOL TEMPERATURE 140°F**
- 800 ELEMENTS**
- 2 PUMPS, 2 HEAT EXCHANGERS (SPENT FUEL POOL COOLING SYSTEM)**
- COMPONENT COOLING WATER INLET TEMPERATURE 83.3°F**

V. SYSTEM EVALUATIONS

SPENT FUEL POOL COOLING

- **INCREASED HEAT LOADS DUE TO HIGH DENSITY RACKS**
 - **SPENT FUEL POOL COOLING SYSTEM**
 - **COMPONENT COOLING WATER SYSTEM**
 - **SALT WATER COOLING SYSTEM**
- **EVALUATE CONSOLIDATED FUEL HEAT LOADS**

V. SYSTEM EVALUATIONS

FUEL HANDLING BUILDING HVAC

- **SEISMIC CLASS I, QUALITY CLASS II**
 - **FHB POST-ACCIDENT CLEANUP SYSTEM**
 - **FUEL POOL PUMP ROOM EMERGENCY COOLING SYSTEM**
- **SEISMIC CLASS II, QUALITY CLASS III**
 - **FHB NORMAL VENTILATION SUPPLY AND EXHAUST SYSTEM**
- **HEAT LOADS**
- **RADIOACTIVE RELEASES**

VI. CONSTRUCTION CONSIDERATIONS

(BECHTEL)

VI. CONSTRUCTION CONSIDERATIONS

OVERVIEW

- **CONSTRAINTS**
- **ALARA**
- **HEAVY LOADS - SCE NUREG-0612 PROGRAM**
- **CONSTRUCTION SEQUENCING**

VI. CONSTRUCTION CONSIDERATIONS

CONSTRAINTS

- **REMOVE/INSTALL IN WET CONDITION**
- **APPROXIMATELY 480 OF EXISTING 800 CELLS
CONTAIN SPENT FUEL**
- **MAINTAIN OPERABILITY DURING CONSTRUCTION**
- **COMPLETE PROJECT DURING CYCLE 5 OPERATION
(ESTIMATED START UNIT 2 INSTALLATION 10/89)**

VI. CONSTRUCTION CONSIDERATIONS

ALARA

- **WORK-DOSE RATE STUDIES**
- **OPTIMIZE DECONTAMINATION PROCESSES**
- **REMOTE OPERATION WITH SPECIAL TOOLS**
- **CONTINGENCY PLAN FOR USE OF DIVERS**

VI. CONSTRUCTION CONSIDERATIONS

HEAVY LOADS - SCE NUREG-0612 PROGRAM

- **SAFE LOAD PATHS**
- **TEMPORARY CRANE**
- **POTENTIAL LOAD DROPS**

VI. CONSTRUCTION CONSIDERATIONS

CONSTRUCTION SEQUENCING

- **SPENT FUEL ARRANGEMENT/MOVEMENT**
- **EXISTING RACK MODULE REMOVAL**
- **EXISTING RACK SUPPORTS REMOVAL**
- **PIPE AND PIPE SUPPORTS REMOVAL**
- **TEMPORARY RELOCATION OF MISCELLANEOUS ITEMS**
- **DECONTAMINATION AND DISPOSAL OF CONTAMINATED ITEMS**

VII. RADIOLOGICAL EVALUATIONS

(BECHTEL)

VII. RADIOLOGICAL EVALUATIONS

OVERVIEW

- **ACCIDENT**
- **NORMAL/CONSTRUCTION**

VII. RADIOLOGICAL EVALUATIONS

ACCIDENT

- **APPROVED UFSAR LICENSING BASES - FUEL HANDLING ACCIDENT**
 - **REGULATORY GUIDE 1.13, REV. 1**
SPENT FUEL STORAGE FACILITY DESIGN BASIS
 - **REGULATORY GUIDE 1.25, REV. 0**
ASSUMPTIONS USED FOR EVALUATING
THE POTENTIAL RADIOLOGICAL CONSEQUENCES
OF A FUEL HANDLING ACCIDENT IN THE
FUEL HANDLING AND STORAGE FACILITY
FOR BOILING AND PRESSURIZED WATER
REACTORS
 - **WHOLE-BODY GAMMA DOSES AND BETA SKIN
DOSES ARE PRESENTED SEPARATELY**
 - **AVERAGE BETA AND GAMMA ENERGIES AND
IODINE DOSE CONVERSION FACTORS USED
ARE THOSE PRESENTED IN TABLES 15B-1
AND 15B-2 OF UPDATED SAN ONOFRE
2 & 3 FSAR**
 - **SUBSECTION 15.7.3.4 OF UFSAR**
DESIGN BASIS FUEL HANDLING ACCIDENTS

VII. RADIOLOGICAL EVALUATIONS

NORMAL/CONSTRUCTION

- **UFSAR CRITERIA/METHODOLOGY**
- **OT POSITION PAPER INFORMATION REQUIREMENTS**
- **PERSONNEL DOSES**
 - **TABLE OF PRINCIPAL RADIONUCLIDES IN WATER**
 - **EXTERNAL DOSE EQUIVALENT**
 - **TABLE OF PRINCIPLE AIRBORNE RADIONUCLIDES**
 - **DOSE RATE IN SFP AREA AND AT SITE BOUNDARY**
 - **MAN-REM BURDEN FROM RESINS AND FILTERS**
 - **ESTIMATE OF CRUD BUILDUP**
 - **EXPECTED TOTAL MAN-REM**
- **SOLID RADIOACTIVE WASTE**
- **EXISTING SPENT FUEL RACK DISPOSAL**

VIII. SUMMARY

(SCE)

VIII. SUMMARY

PROJECT BASIS

- **NEED FOR INCREASED STORAGE**

- **APPROXIMATELY 480 SPENT FUEL ELEMENTS
INPOOL BY FALL 1989**
- **SINGLE CORE OFF-LOAD CAPABILITY - 1993 (2003)**
- **SPENT FUEL POOL FULL - 1997 (2013)**

- **STORAGE CAPACITY**

- **CURRENT - 800**
- **PROPOSED - 1587 (APPROXIMATE)**

- **ANALYSIS APPROACH**

- **CURRENT NRC CRITERIA - RACKS**
- **UFSAR CRITERIA - BUILDING & SYSTEMS**

VIII. SUMMARY

LICENSING AMENDMENT APPLICATIONS

- **NORMAL FUEL STORAGE**
- **CONSOLIDATED FUEL STORAGE**
- **SPECIAL ISSUES**
 - **SEISMIC DESIGN**
 - **BORAFLEX**
 - **HEAVY LOADS**
 - **ENVIRONMENTAL ASSESSMENT**

VIII. SUMMARY

LICENSING MILESTONES

- **6/2/88 - INITIAL MEETING WITH NRC**
 - **PRESENT CRITERIA AND METHODOLOGY**
- **7/16/88 - SUBMITTAL OF PRELIMINARY LICENSE AMENDMENT AND MEETING WITH NRC**
 - **PROVIDE PRELIMINARY DETAILS OF RERACKING ENGINEERING, DESIGN AND CONSTRUCTION**
- **11/15/88 - SUBMITTAL OF PROPOSED LICENSE AMENDMENT TO NRC**
 - **PROVIDE COMPLETE RERACKING ANALYSIS AND LICENSE AMENDMENT REQUEST**
- **3/15/89 - NRC ASSESSMENT OF AMENDMENT REQUEST (BEGIN RACK FABRICATION)**
- **5/15/89 - SER ISSUED BY NRC**