

April 6, 1994

Docket Nos. 50-445  
and 50-446

LICENSEE: Texas Utilities Electric Company

FACILITY: Comanche Peak Steam Electric Station, Units 1 and 2

SUBJECT: SUMMARY OF MEETING CONCERNING SPENT FUEL STORAGE FOR COMANCHE PEAK  
STEAM ELECTRIC STATION, UNITS 1 AND 2 (TAC NOS. M88920 AND M88921)

A meeting was held on March 24, 1994, to discuss TU Electric's plans concerning spent fuel storage for Comanche Peak Steam Electric Station, Units 1 and 2 (CPSES). TU Electric is currently licensed to store 1,116 fuel assemblies in two storage pools at CPSES. In order to increase the capacity of these pools, TU Electric is planning to submit a license amendment that would allow TU Electric to use higher density storage racks. TU Electric stated that this license amendment request will be submitted in Fall 1994. This amendment, if approved, would increase storage capacity to 1,289 fuel assemblies.

TU Electric also stated that they would be interested in taking credit for soluble boron in the spent fuel pool. This issue will be resolved generically by the NRC. In order for TU Electric to take credit for soluble boron in the spent fuel pool, a license amendment would be required. This would increase the total number of storage locations to 2,024; which would provide sufficient spent fuel pool storage for CPSES until about the year 2007.

The slides presented during the meeting are attached as Enclosure 1. The attendees are listed in Enclosure 2.

Original Signed By

Thomas A. Bergman, Project Manager  
Project Directorate IV-2  
Division of Reactor Projects III/IV  
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Enclosures:

1. Presentation Materials
2. Attendance List

cc w/enclosures:  
See next page

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DATE	4/5/94	4/6/94	4/6/94		

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LYandell, Region IV\*  
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\*w/both enclosures

COMANCHE PEAK STEAM ELECTRIC STATION

PRESENTATION TO

NUCLEAR REGULATORY COMMISSION

ON

SPENT FUEL STORAGE PLANS

MARCH 24, 1994  
JIM KELLEY  
FRED W. MADDEN  
TU ELECTRIC

## AGENDA

- I. BACKGROUND
  - A. CURRENT CPSES LICENSING BASIS
  - B. CURRENT SPENT FUEL POOL/RACK CONFIGURATION
  - C. PAST PROCUREMENT OF HIGH DENSITY, BORAFLEX RACKS
  - D. INDUSTRY EXPERIENCE WITH BORAFLEX
  
- II. SPENT FUEL DISCHARGE PROJECTIONS
  
- III. PLAN FOR INCREMENTALLY PROVIDING ADDITIONAL STORAGE
  
- IV. LICENSING SCHEDULE

## CURRENT LICENSING BASES

- 1116 FUEL ASSEMBLIES IN TWO STORAGE POOLS
- STORAGE RACKS WITH 16-IN CENTER-TO-CENTER SPACING
- RACK  $K_{eff} \leq 0.95$  WITH UNBORATED WATER
- ONE STORAGE RACK IN EACH CONTAINMENT

## CURRENT CONFIGURATION (FIGURE 1)

- 20 RACKS INSTALLED IN TWO POOLS
- 554 STORAGE LOCATIONS AVAILABLE
- 205 SPENT FUEL ASSEMBLIES STORED IN POOL NO. 1

# CPSES SPENT FUEL STORAGE FOR 1993 (1RF03, FALL)

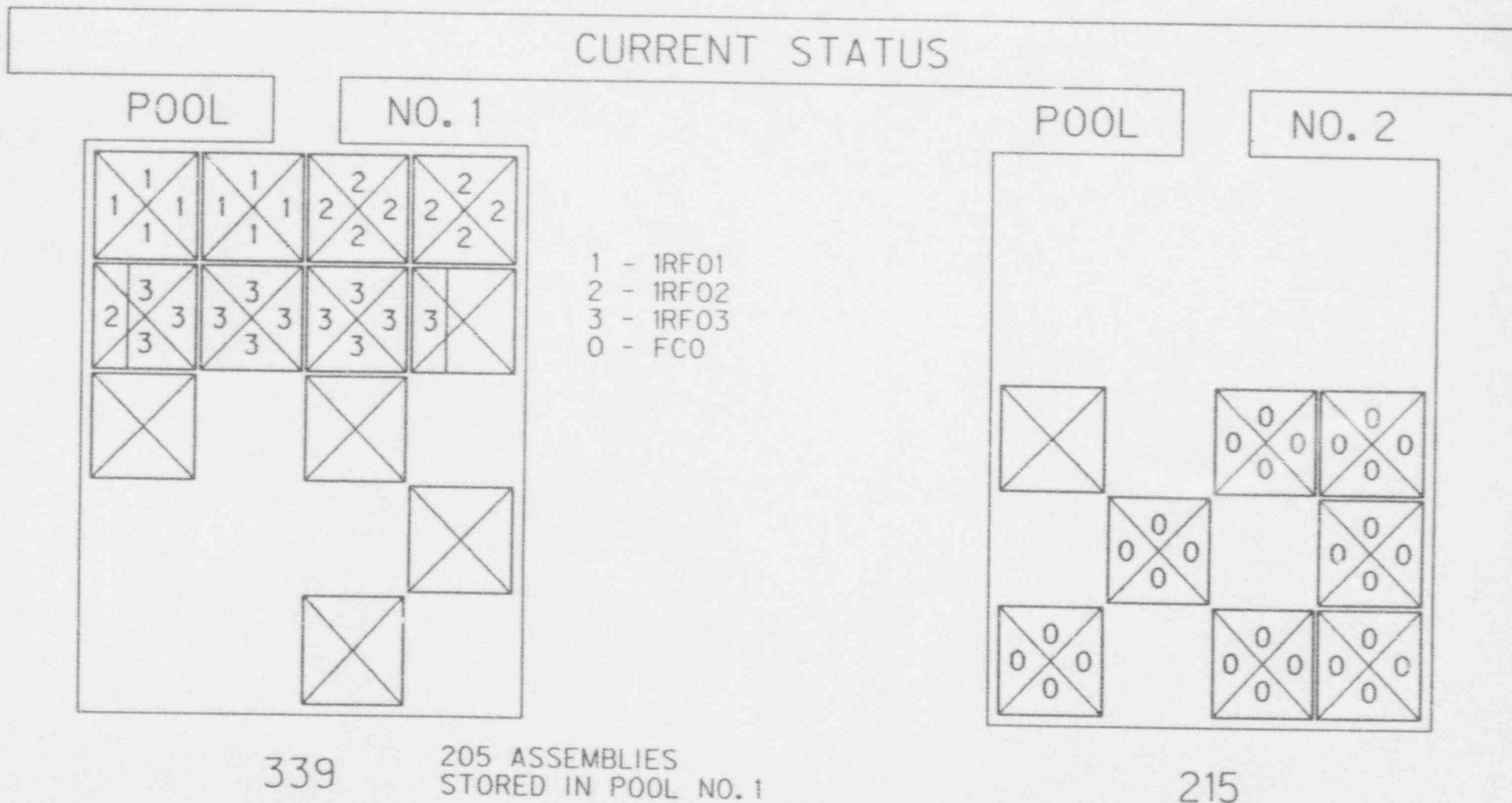


FIGURE 1

## HIGH DENSITY "POISON" STORAGE RACKS

- 1984-85 PROCUREMENT OF HIGH DENSITY STORAGE RACKS
- RACKS WITH HIGH DENSITY SPACING
- NEUTRON POISON IS BORON IN THE FORM OF "BORAFLEX"
- TWO REGIONS OF HIGH DENSITY RACKS

REGION 1 - 456 STORAGE LOCATIONS

10.6-in. CENTER-TO-CENTER SPACING

REGION 2 - 2940 STORAGE LOCATIONS

9-in. CENTER-TO-CENTER SPACING

## INDUSTRY EXPERIENCE WITH BORAFLEX

- BORAFLEX IS A SILICON-BASED POLYMER WITH BORON CARBIDE
- USED IN 34 SPENT FUEL POOLS
- SHRINKAGE (POSSIBLY LEADING TO TEARS) FOLLOWING HIGH GAMMA EXPOSURES
- RELEASE OF SILICA TO FUEL POOL WATER



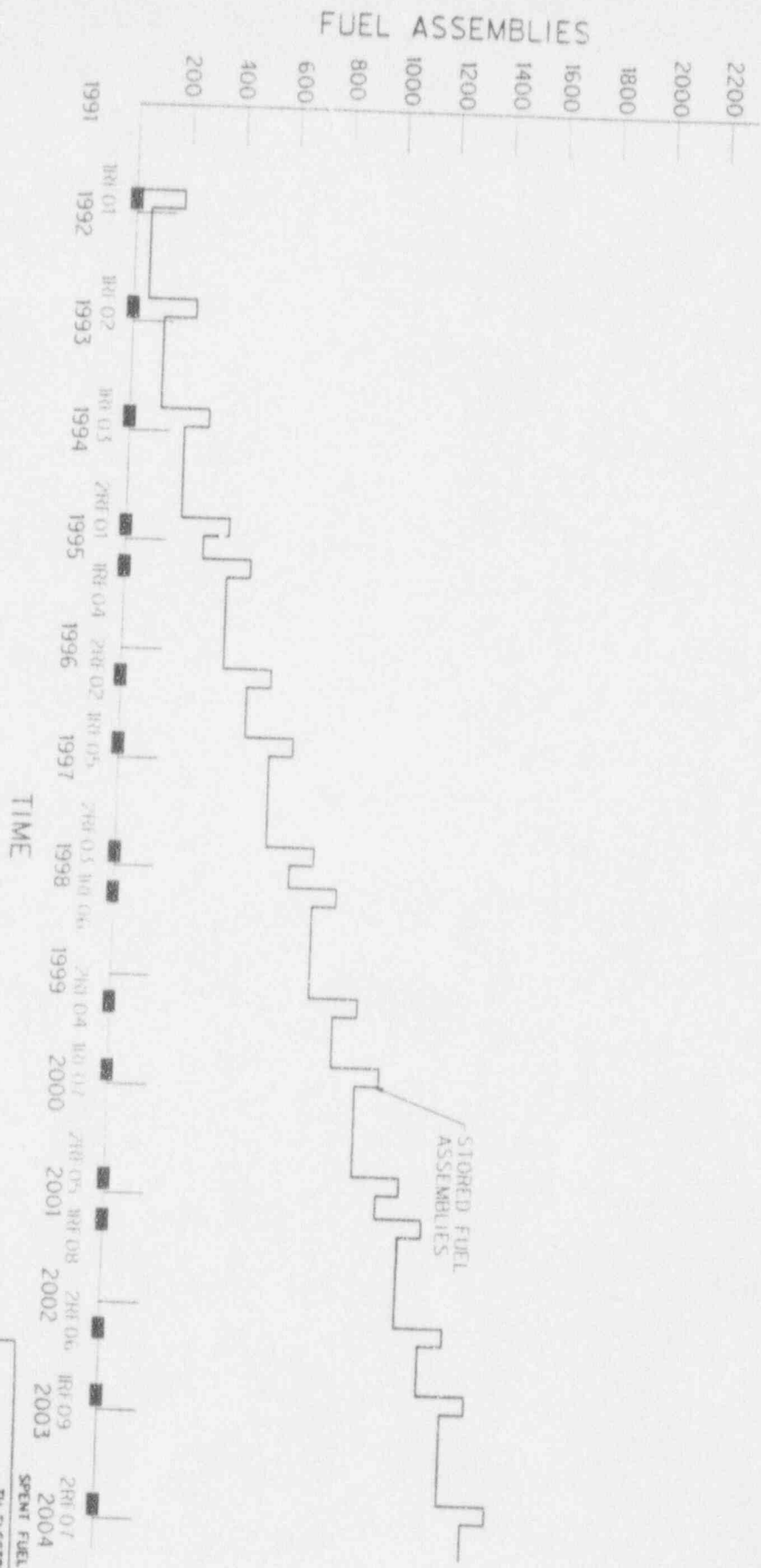


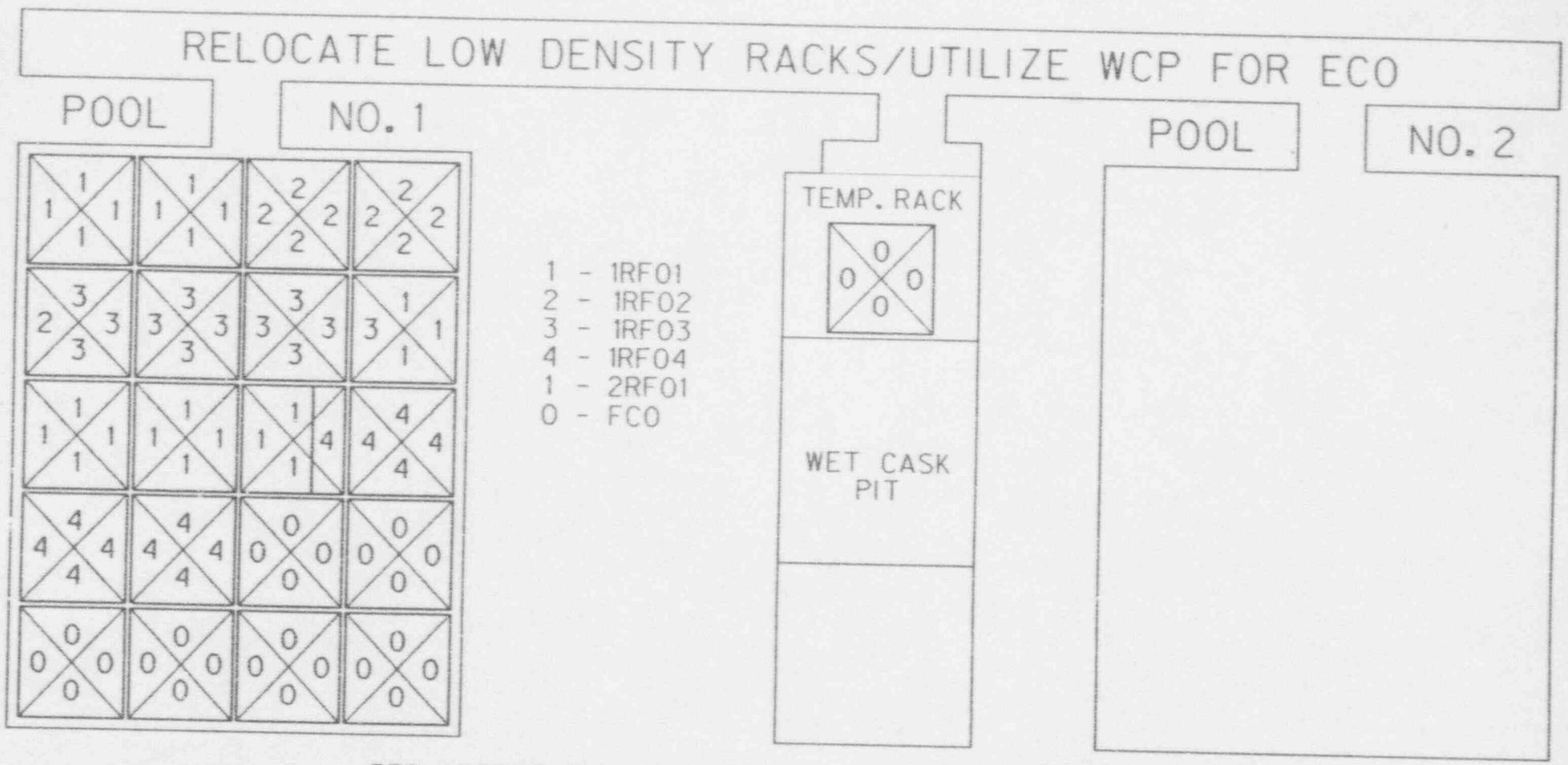
FIGURE 2

TU ELECTRIC  
 CHSES  
 OLEN ROSE, TEXAS  
 SPENT FUEL  
 DISCHARGE  
 PROJECTION  
 DS1930040  
 01 REV. 1

## PLAN FOR INCREMENTALLY PROVIDING ADDITIONAL STORAGE

1. RELOCATE EXISTING LOW DENSITY RACKS TO POOL #1 - FIGURES 3 AND 4
2. USE TEMPORARY STORAGE RACK FOR 2RF02
  - USE ONE HIGH DENSITY RACK IN THE WET CASK PIT
  - FUEL STORED IN CHECKERBOARD ARRANGEMENT
  - RACK AVAILABLE FOR EMERGENCY FULL CORE OFFLOAD USE
3. LICENSE USE OF HIGH-DENSITY RACKS - FIGURE 5 (REGION 2 RACKS WITHOUT BORAFLEX IN A CHECKERBOARD ARRAY IN POOL #2)
4. EMPLOY WOG PROGRAM FOR SOLUBLE BORON (ALLOWS FULL UTILIZATION OF REGION 2 HIGH DENSITY RACKS)
  - WOG PROGRAM COMPLETION IS SCHEDULED FOR AUGUST 1994
5. LONG TERM (POST-2003) OPTIONS
  - TRANSFER TO DOE
  - DRY CASK STORAGE
  - USE OF REGION 1 RACKS WITH NEW POISON
  - FURTHER RERACKING

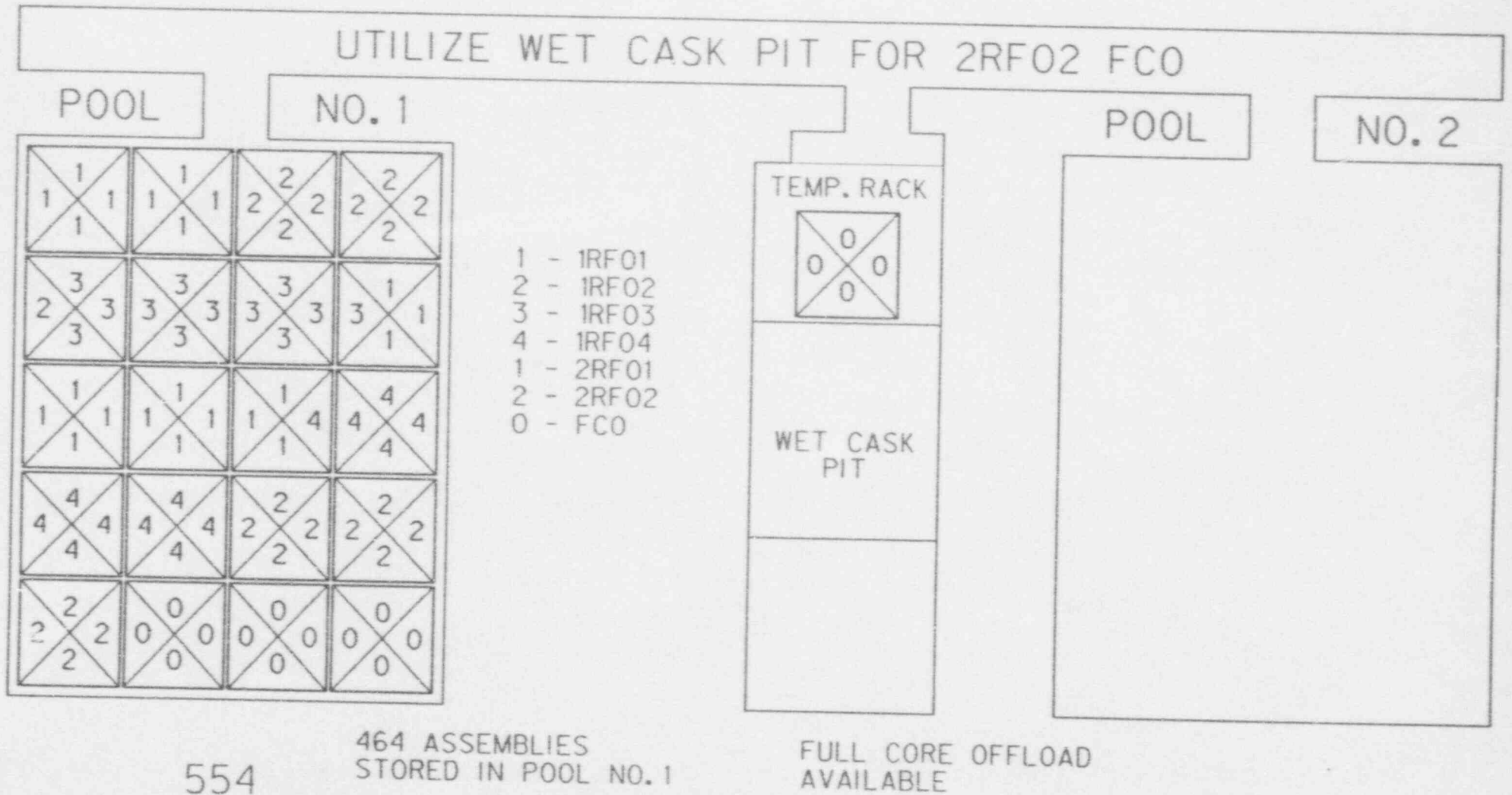
# CPSES SPENT FUEL STORAGE FOR 1995 (1RF04, SPRING)



554 379 ASSEMBLIES STORED IN POOL NO. 1

FIGURE 3

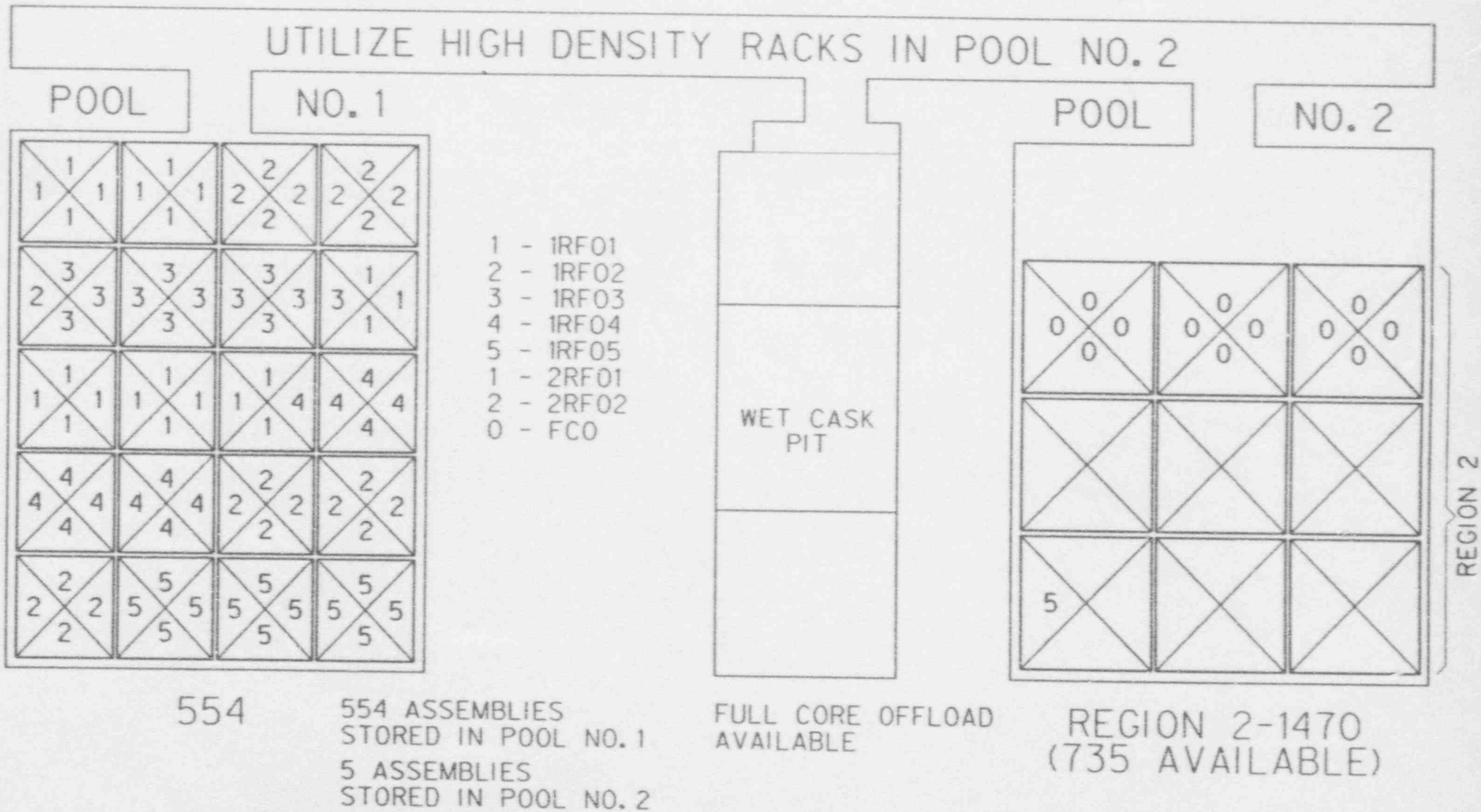
# CPSES SPENT FUEL STORAGE FOR 1996 (2RF02, SPRING)



USE RACK IN WET CASK PIT OR IN-CONTAINMENT RACK FOR 2RF02 OFFLOAD.

FIGURE 4

# CPSES SPENT FUEL STORAGE FOR 1996 (1RF05, FALL)



INSTALL HIGH DENSITY RACKS IN POOL NO. 2 PRIOR TO 1RF05.

FIGURE 5

# FUEL ASSEMBLIES

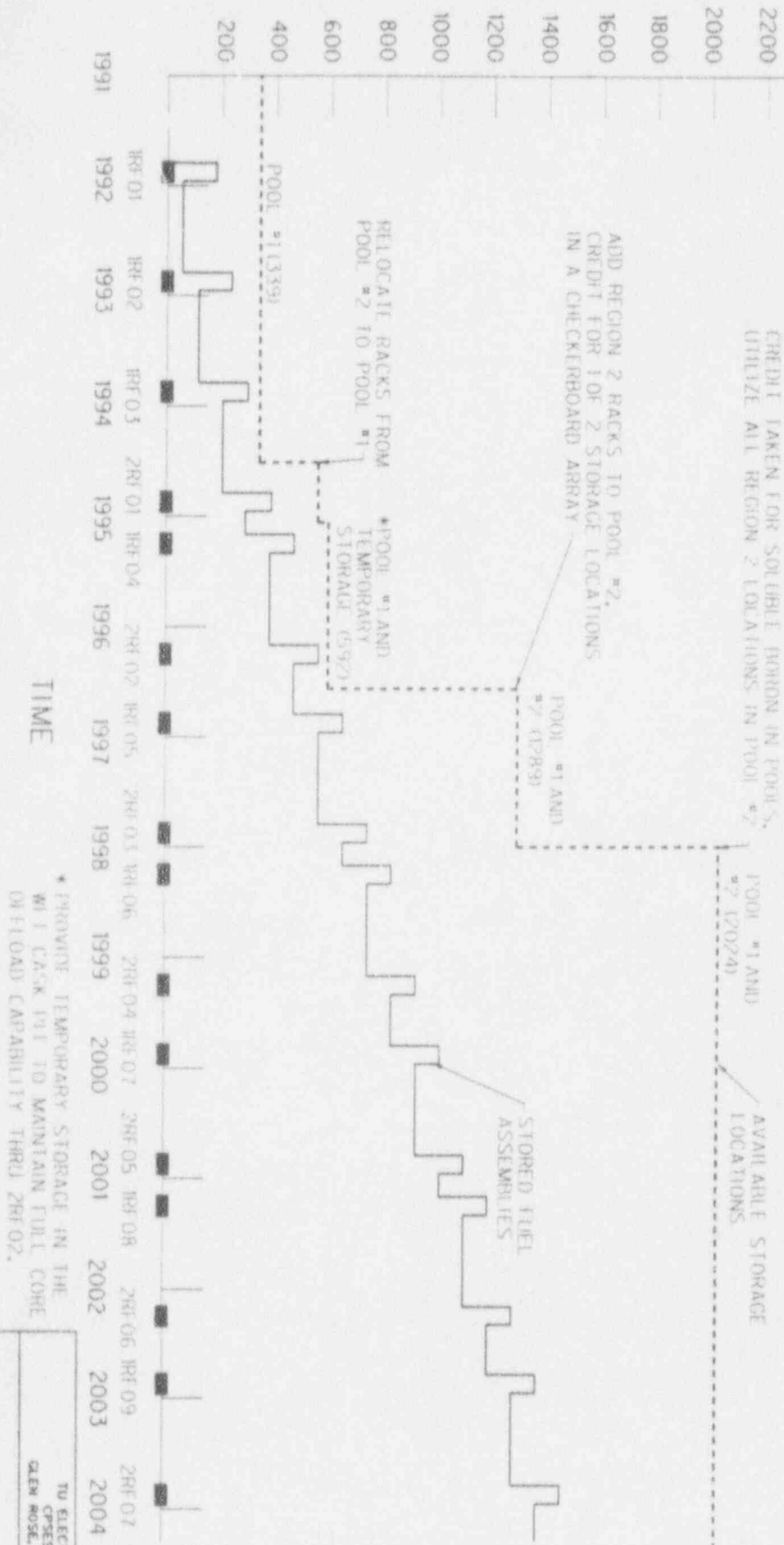


FIGURE 6

\* PROVIDE TEMPORARY STORAGE IN THE M1 CASK 191 TO MAINTAIN FULL CORE OFFLOAD CAPABILITY THRU 2R1 02.

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01	REV. 1
SPENT FUEL STORAGE	

LICENSING SCHEDULE

LICENSE AMENDMENT SUBMITTAL - LAST QUARTER 1994

LICENSE AMENDMENT BY NRC - LAST QUARTER 1995

ENCLOSURE 2

MEETING ATTENDEES

MEETING WITH TU ELECTRIC

MARCH 24, 1994

TU ELECTRIC

D. Bursi  
C. Corbin  
F. Madden  
R. Walker

NRC

T. Bergman  
J. Ma  
L. Kopp  
L. Phillips