

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No.: 50-312/90-02
License No.: DPR-54
Licensee: Sacramento Municipal Utility District
P. O. Box 15830
Sacramento, California 95813
Facility Name: Rancho Seco Nuclear Generating Station
Management Meeting: Clay Station, California
Meeting Conducted: January 24, 1990

Inspector:

J. Russell
J. Russell, Radiation Specialist

2-1-90
Date Signed

Approved by:

F. Wenslawski
F. Wenslawski, Chief
Facilities Radiological Protection Section

2/1/90
Date Signed

Meeting Summary:

On 24 January 1990, Region V and NRR management and inspection representatives attended a presentation by Rancho Seco plant management which addressed the status of manning, program implementation and closure strategy in the areas of radiation protection, radwaste, chemistry, environmental monitoring, and training. The current status of efforts to isolate and mitigate spent fuel pool leakage was also presented.

DETAILS

1. Management Meeting Participants

Licensee Personnel

D. Keuter, Assistant General Manager, Nuclear
J. Shetler, Deputy Assistant General Manager, Nuclear
P. Bender, Nuclear Quality and Industrial Safety Manager
S. Crunk, Nuclear Licensing Manager
P. Lydon, Nuclear Plant Manager
D. Yows, Emergency Preparedness and Environmental Monitoring Manager
W. Peabody, Technical Services Manager
M. Bua, Radiation Protection Manager
J. Clark, Chemistry Manager
S. Redeker, Operations Manager
M. Meredith, Nuclear Training Manager

NRC

G. Yuhas, Emergency Preparedness & Radiological Protection Branch Chief
A. D'Angelo, Senior Resident Inspector
S. Reynolds, Project Directorate V, NRR
S. Brown, Project Directorate I, NRR
F. Wenslawski, Facilities Radiological Protection Section Chief
J. Russell, Radiation Specialist

Licensee Contractor

R. Robert, Bechtel Corporation

In addition to these, other members of the licensee's staff were also present.

2. Management Meeting (30702)

The Assistant General Manager, Nuclear, opened the meeting by expressing the importance of open communication between the site and the NRC and noting that the topics, about which the NRC was concerned, were those on which work was being done by the Decommissioning/Closure Evaluation Team. He stated that it was expected that 1990 would be a rather stagnant year, with staffing essentially constant, as the decommissioning plan was established and approved and as the District Board evaluated contractor bids for management and execution of plant closure and decommissioning. He also emphasized that the District's mission was to close and ultimately decommission Rancho Seco as safely and economically as possible, consistent with NRC license requirements.

The Deputy Assistant General Manager, Nuclear, chaired the remainder of the meeting, during which current plant status and the plant closure strategy for the next 2.5 years were presented. This was detailed in a NRC Briefing pamphlet, provided as an attachment to this report. He

noted that closure status was being tracked and updated weekly with regard to the specific closure milestones. Current strategies involved devitalizing security areas, streamlining personnel and programs, and evaluating wet and dry fuel storage options. Current staffing was considered adequate and future reductions were outlined.

The Training Supervisor outlined current efforts in the reconstituted Training Department as those of tailoring the previously accredited program to the defuelled condition, i.e. the elimination of those aspects of the programs that were no longer needed and the transfer of routine retraining responsibilities to the applicable departments. The Emergency Preparedness & Radiological Protection Branch Chief (EPRPBC) noted that, with the numerous program revisions, some management approved document was needed to specify due dates and document completion of required 10 CFR 19 training, particularly with regard to training of contractors, and routine retraining. The Deputy Assistant General Manager stated that this would be accomplished.

The Chemistry Manager detailed current activities in this area and noted that the Radiological Effluent Technical Specifications (RETS) and a revised Offsite Dose Calculation Manual (ODCM) had been forwarded to the NRC for review in attendance with the defuelled TS submittal. Plant system layup activities were also discussed and the Layup Task Force methodology was detailed. It was also stated that a catalogue of operable and available systems was being developed and a copy would be provided to the NRC.

The Radiological Protection (RP) Manager discussed the status of RP technician manning and planned changes. He noted that there were 46 approved and filled positions in RP of which 16 were operational RP technicians and 16 were radwaste handlers. A long term program, to inventory and sort the radioactive materials in storage in 5 semi-trailers and 21 sea vans, was being implemented and was targeted for completion in 2 years. Also, a program to reduce the frequently accessed contaminated area square-footage by 5% each year was continuing.

The Emergency Preparedness and Environmental Monitoring Manager noted that this organization had recently added one individual in the effluents group and would be filling an additional vacancy. The environmental monitoring program was also being reviewed for appropriate adjustments, e.g. the number of monitored gardens had recently been reduced from 8 to 2. The EPRPBC noted that numerous commitments had been made relative to improvements in the liquid effluents program and that these should be catalogued and reviewed to determine those that may be effected by the plant closure and those that are being pursued. The Deputy Assistant General Manager stated that this information would be gathered and provided to the NRC and that an integrated review of the commitments would be made to assure consistency of approach in the deferral of specific items. This is considered an Open Item (50-312/90-02-01). It was also noted that a Task Force was addressing the development of an appropriate LLD for verifying the absence of plant related radioactivity in soils and materials on the plant site and in the owner controlled area, i.e. in providing a release criterium (this item is being tracked separately, see inspection report open item 50-312/89-18-05).

Planned audits and surveillance for the coming year were reviewed by the Nuclear Quality and Industrial Safety Manager.

The Technical Manager detailed efforts to locate and seal the leak in the Spent Fuel Pool. Current suspicion as to the possible location of the leakage has focussed on embedments which secure rack, for cask restraint, to the north wall of the spent fuel pool. Caps, filled with a resin based sealant, were planned to be installed over the ends of the embedment rods during May 1990 in an effort to stop the leakage.

The Deputy Assistant General Manager summarized the meeting, again stressing the need for open communication, and listed those items which would be provided to the NRC for review, as noted above.

The EPRPBC thanked the licensee for their presentation and the meeting was closed.

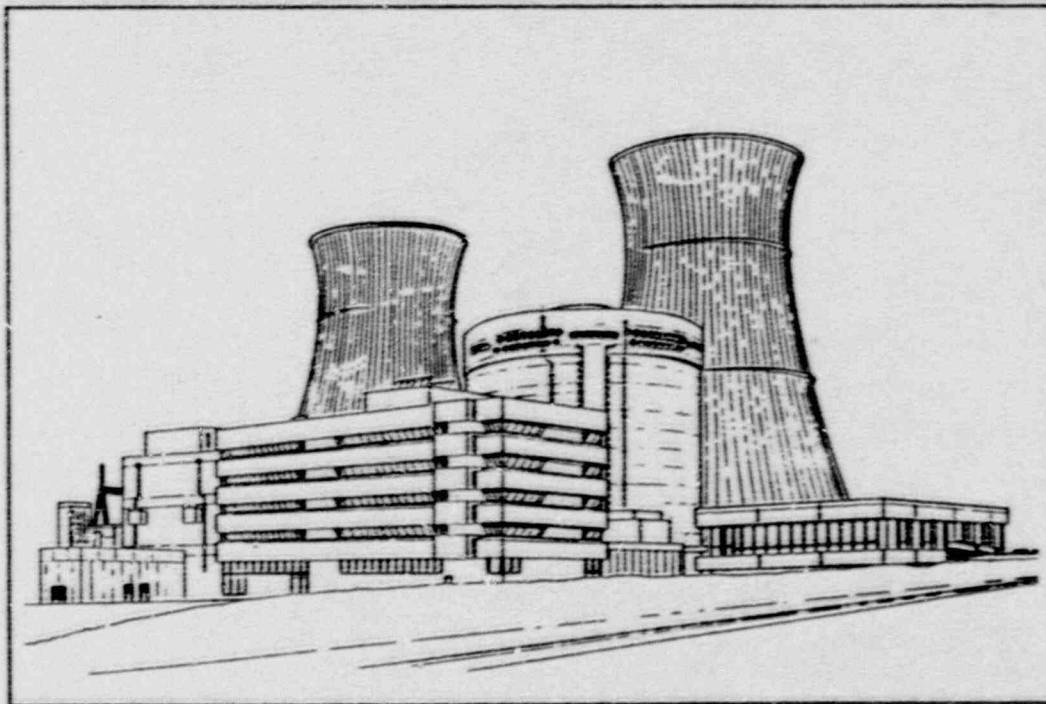
Attachment: As stated

RANCHO SECO

Nuclear Generating Station

NRC BRIEFING

January 24, 1990



- Radiation Protection/
Radwaste
- Chemistry
- Environmental Monitoring



SACRAMENTO MUNICIPAL UTILITY DISTRICT

**RANCHO SECO NUCLEAR GENERATING STATION
NUCLEAR REGULATORY COMMISSION
CLOSURE UPDATE
JANUARY 24, 1990**

SMUD ATTENDEES

- JIM SHETLER DEPUTY AGM, NUCLEAR
- PAUL BENDER MANAGER, NUCLEAR QUALITY
& INDUSTRIAL SAFETY
- BOB GIBSON MANAGER, NUCLEAR SUPPORT SERVICES
- PAT LYDON MANAGER, NUCLEAR PLANT
- WARREN PEABODY MANAGER, TECHNICAL SERVICES
- MIKE BUA RADIATION PROTECTION MANAGER
- JIM CLARK CHEMISTRY MANAGER
- DENNIS YOWS ENVIRONMENTAL MONITORING &
EMERGENCY PREPAREDNESS MANAGER
- BILL WILSON TRAINING SITE SUPPORT SUPERVISOR
- STEVE CRUNK NUCLEAR LICENSING MANAGER

AGENDA

INTRODUCTION/OVERVIEW	JIM SHETLER
QUALIFICATION/TRAINING	BILL WILSON
NUCLEAR CHEMISTRY	JIM CLARK
RADIATION PROTECTION	MIKE BUA
ENVIRONMENTAL MONITORING	DENNIS YOWS
QUALITY PROGRAM	PAUL BENDER
SPENT FUEL POOL LEAK	WARREN PEABODY
INVESTIGATION	
SUMMARY	JIM SHETLER

INTRODUCTION/OVERVIEW

JIM SHETLER
DEPUTY AGM
NUCLEAR

OVERVIEW

STATUS

PROCESS

MISSION

STRATEGY

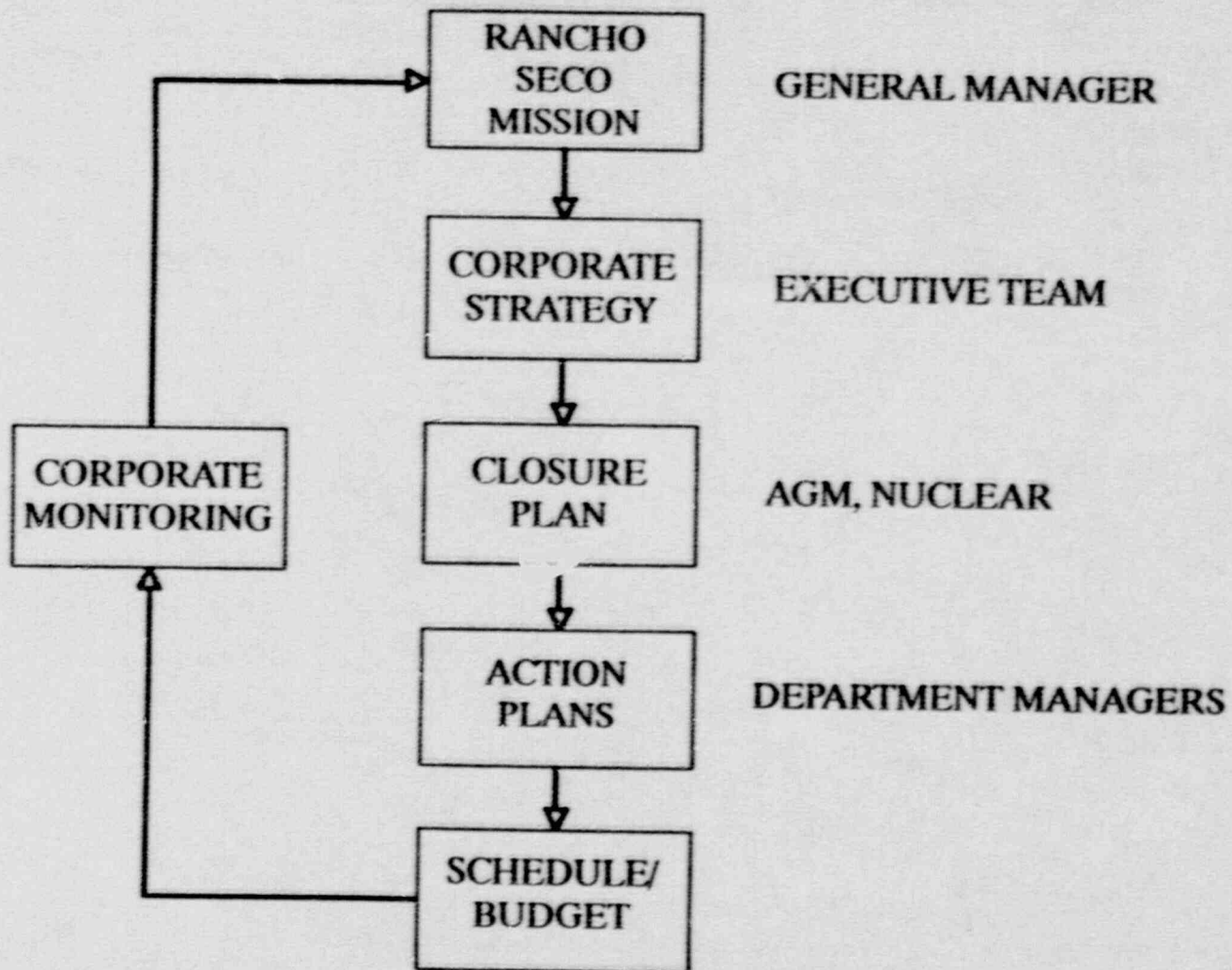
ORGANIZATION/STAFFING

BUDGET

RANCHO SECO CLOSURE STATUS

- * PRE-ELECTION CONTINGENCY PLAN
- * PUBLIC VOTE - JUNE 6, 1989
- * PLANT SHUTDOWN - INITIATED JUNE 7, 1989
- * CORE OFFLOAD - COMPLETED DECEMBER 8, 1989
- * LICENSE CONDITION REQUEST - SUBMITTED PA 183 NOVEMBER 29, 1989
- * COMMITMENT REASSESSMENT - SUBMITTED NOVEMBER 30, 1989
- * TECHNICAL SPECIFICATION EVALUATION
FOR DEFUELED CONDITION - DECEMBER 4, 1989
- * INTERIM RELIEF REQUESTS - SUBMITTED DECEMBER 28, 1989
 - DEFUELED TECHNICAL SPECIFICATIONS
 - REVISED SECURITY PLAN
 - REVISED EMERGENCY PLAN
 - OPERATOR TRAINING PROGRAM EXEMPTION REQUESTS

RANCHO SECO CLOSURE PROCESS

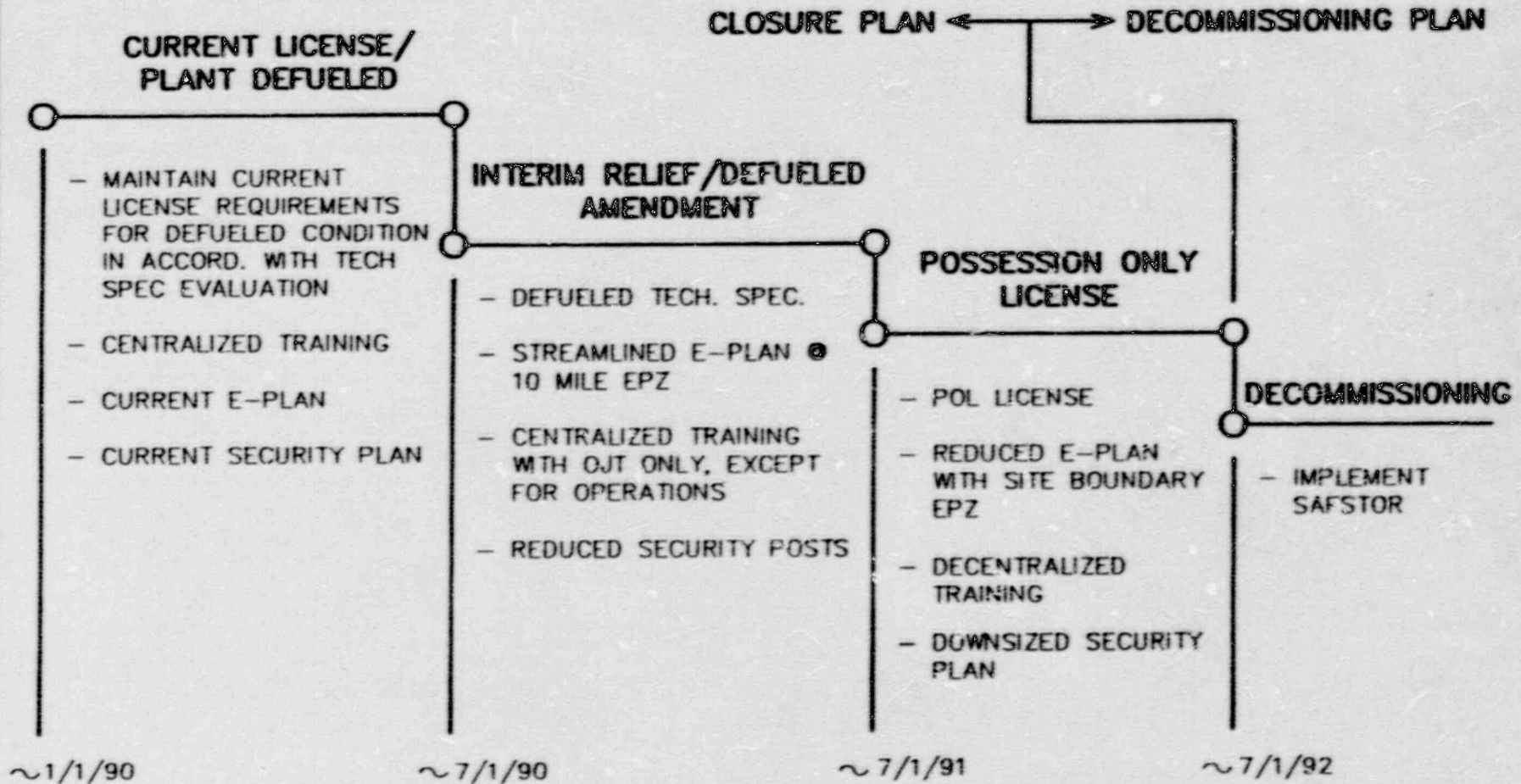


RANCHO SECO CLOSURE MISSION

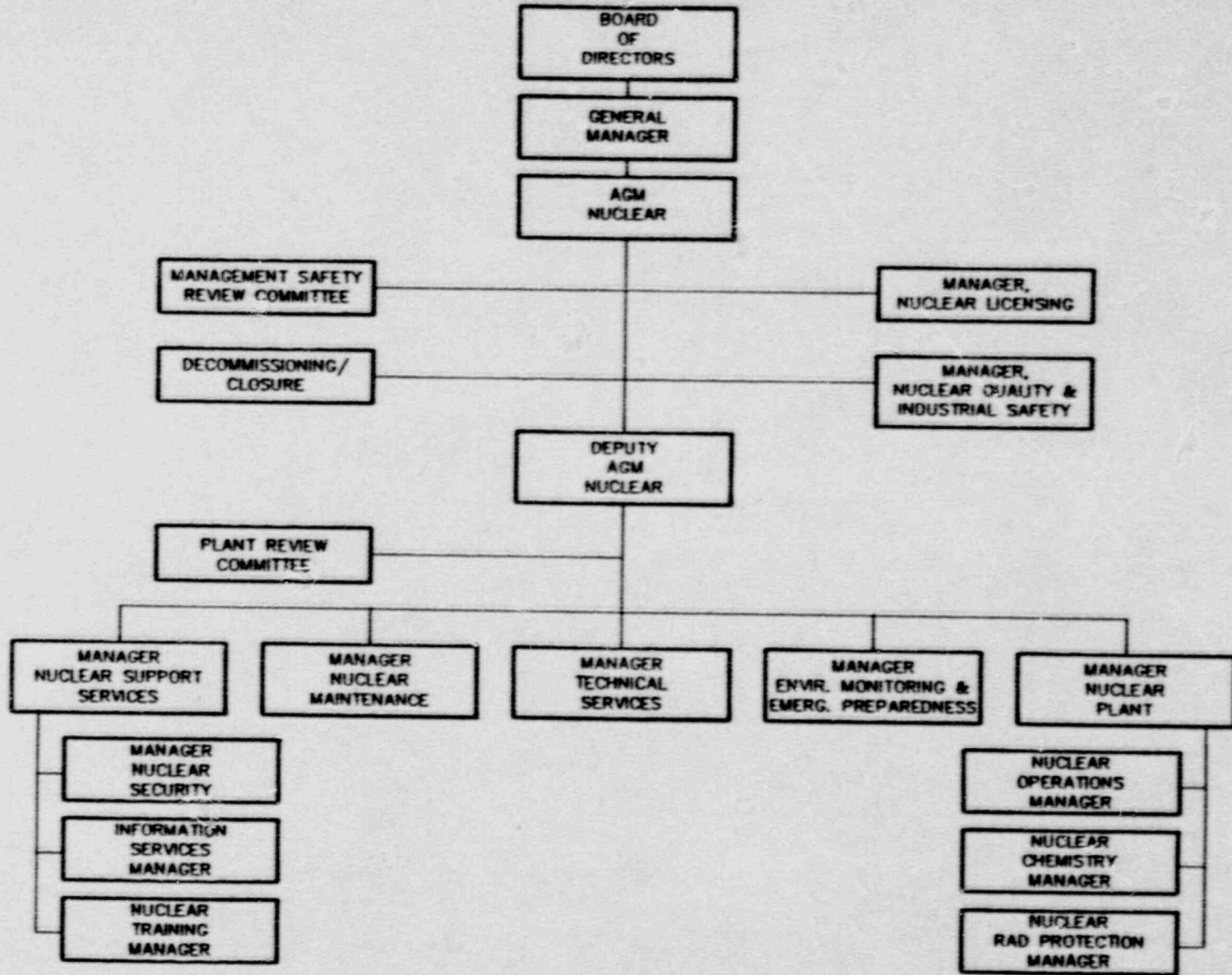
The District's Mission Statement Associated with Rancho Seco Closure is as follows:

**" Close and Ultimately Decommission Rancho Seco
as Safely and Economically as Possible,
Consistent with Nuclear Regulatory Commission
(NRC) License Requirements. "**

RANCHO SECO CLOSURE STRATEGY



RANCHO SECO ORGANIZATION



RANCHO SECO STAFFING (SMUD PERSONNEL)

	DEFUELED 1/1/90 - 7/1/90	INTERIM 7/1/90 - 7/1/91	POL 7/1/91 - 7/1/92	DECOM. 7/1/92 -
Assistant General Manager	49	44	23	11
Quality & Safety	36	35	12	12
Support Services	92	87	81	58
Maintenance	88	72	69	45
Plant	121	115	99	61
Technical Services	70	67	48	25
TOTAL	456	420	332	212

1990 RANCHO SECO BUDGET

\$ MILLIONS

* ALLOCATED
OPERATION & MAINTENANCE
CAPITAL
* GENERAL MANAGER RESERVE

53.8

1.5

6.0

TOTAL

61.3

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QUALIFICATION/TRAINING

BILL WILSON
TRAINING SITE SUPPORT SUPERVISOR

RP/RADWASTE & CHEMISTRY TRAINING

- * Nuclear Training Action Plan Goal:
To have Performance-Based OJT Programs
- * Current RP & Chemistry Personnel are Qualified
- * New Personnel
 - Hire ANSI 18.1 Qualified
 - Placement Determined by Exemptions
 - a. Education
 - b. Experience
 - Determine Remaining Qualification Training
- * Retraining Performed as Required by Managers

SUMMARY

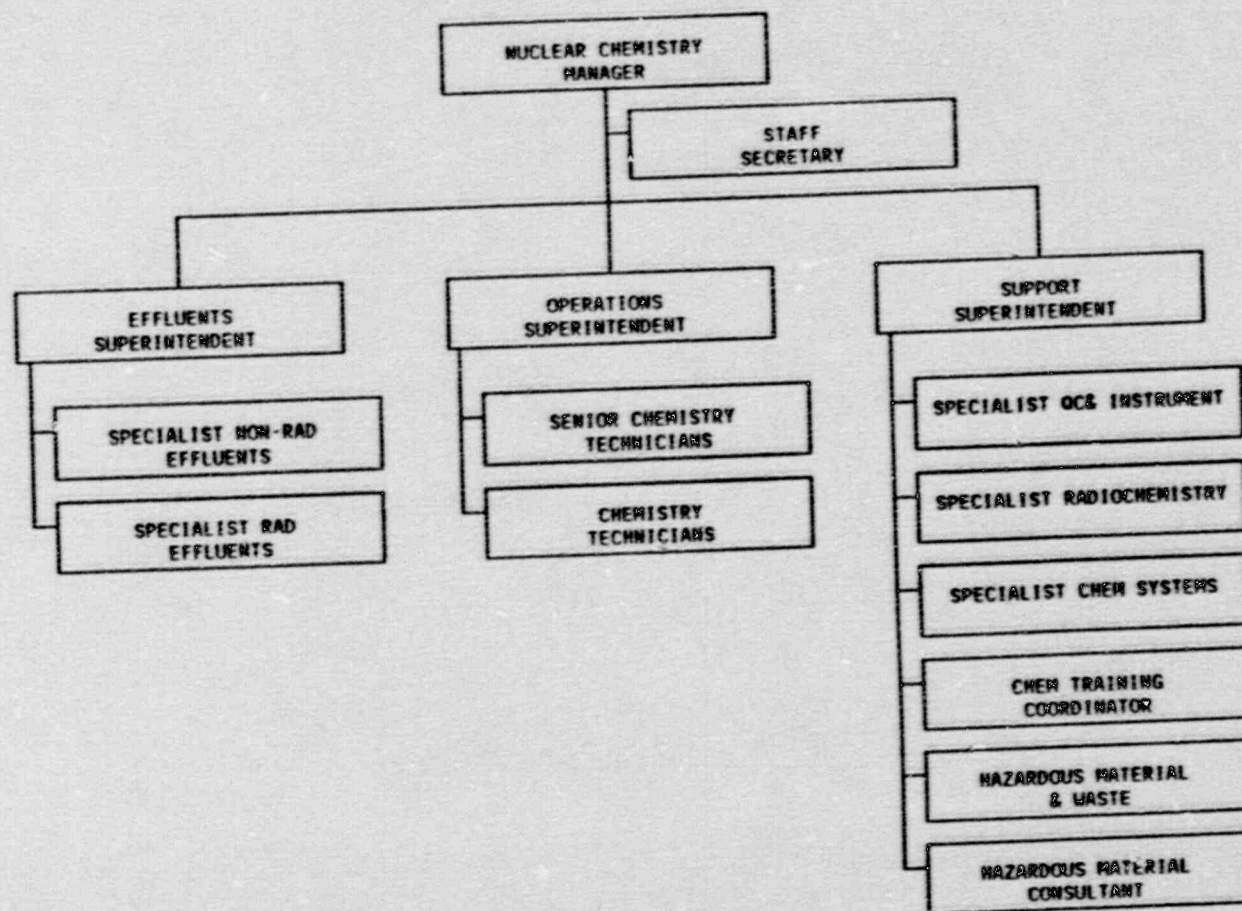
- * No Renewal of INPO Accreditation
- * Systematic Approach to Training (SAT) Program
- * Task Based Training Similar to INPO Program

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NUCLEAR CHEMISTRY

JIM CLARK
CHEMISTRY MANAGER

CHEMISTRY DEPARTMENT DEFUELED ORGANIZATION



SPENT FUEL POOL MONITORING

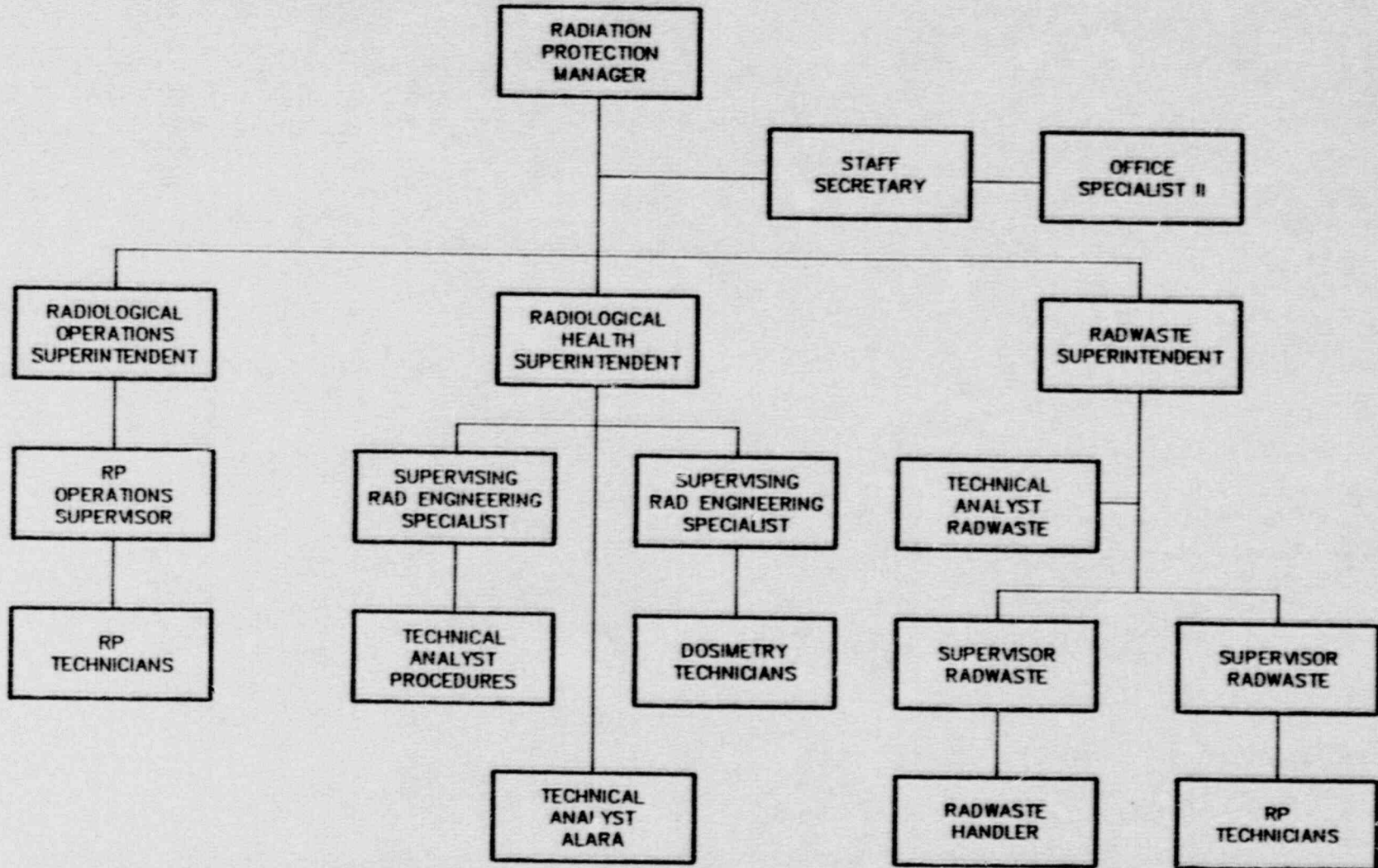
Parameter	Sampling Frequency	Limit
Boron	Weekly and after each Makeup	Info only
Chloride	Weekly and after each Makeup	150 ppb max
Fluoride	Weekly and after each Makeup	150 ppb max
pH	Weekly	Info only
Tritium	Weekly	To be Determined
Total Gamma Activity	Weekly	To be Determined

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RADIATION PROTECTION

**MIKE BUA
RADIATION PROTECTION MANAGER**

RADIATION PROTECTION DEFUELED ORGANIZATION



REMP REVISION (REV. 3) - PHASE I (COMPLETE)

- * Prepared a List of REMP Samples to be Modified
 - Gardens reduced from 8 to 2
 - One Milk Sample Eliminated

- * Completed Justification
 - 10 CFR 50.59
 - ANI Coordination
 - Legal Counsel Coordination

- * REMP Revision 3 Implemented on 1/1/90

- * REMP Revision (Rev. 4) removes REMP from Technical Specifications Implementing Generic Letter 89-01, effective upon NRC Approval

REMP REVISION (REV. 5) - PHASE II

- * Identify Remaining REMP Activities to be Modified, Consider:
 - Source Terms
 - 10 CFR 50, Appendix I, Section IV. B
 - Legal
 - Past Indications
 - Branch Technical Position, November 1979
 - ANI Engineering Review Criteria for Environmental Programs

- * Prepare Justification:
 - 10 CFR 50.59
 - ANI Coordination
 - Legal Counsel Coordination

- * Implement after Approval of Defueled Tech Specs

VERIFICATION OF ENVIRONMENTAL EXPOSURE CONTROLS

GOALS:

Verify that Regions which have been Influenced by Clay Creek have been Identified and Characterized. Specify Remediation to Assure Continued Compliance with 40 CFR 190

ACTIONS:

PHASE 1: Document Search

PHASE 2: Radiological Monitoring Planning

PHASE 3: Radiological Monitoring

PHASE 4: Data Evaluation

SCHEDULE:

Activities will take approximately 8 Person-Months

**VERIFICATION OF ENVIRONMENTAL
EXPOSURE CONTROLS
PHASE 1 - DOCUMENT SEARCH**

- * Compile Historical Evaluations of Terrestrial and Aquatic Radiological Profiles to Define Interest Areas
- * Define Exposure Pathway Based Remedial Action Levels

**VERIFICATION OF ENVIRONMENTAL
EXPOSURE CONTROLS
PHASE 2 - RADIOLOGICAL MONITORING PLANNING**

- * Include Phase 1 Results in Phase 2
- * Develop a Monitoring/Sampling Plan that will Define an Accurate and Representative Radiological Profile of Interest Areas.

**VERIFICATION OF ENVIRONMENTAL
EXPOSURE CONTROLS
PHASE 3 - RADIOLOGICAL MONITORING**

- * Conduct Monitoring Activities Defined by Phase 2
- * Monitoring Activities will be completed by In-House Resources as much as possible.
- * Assume that Nuclide Identification Analysis will be performed by an Independent Laboratory.

**VERIFICATION OF ENVIRONMENTAL
EXPOSURE CONTROLS
PHASE 4 - DATA EVALUATION**

- * End results will provide Remediation Recommendations for Interest Areas.

- * May result in any of the following:
 - Immediate Action
 - Delayed Action
 - No Action

QUALITY PROGRAM

**PAUL BENDER
MANAGER**

NUCLEAR QUALITY & INDUSTRIAL SAFETY

1990 NUCLEAR QUALITY AUDIT SCHEDULE (Partial)

- | | |
|--|------------|
| * Emergency Preparedness | - March |
| * Radiological and Non-Radiological Environmental Monitoring Program | - June |
| * Offsite Dose Calculation Manual | - April |
| * Process Control Program (Liquid) | - January |
| * Effluent Control and Monitoring | - November |
| * Packaging and Transportation of Radioactive Material | - February |
| * Radiological Safety and Control | - August |
| * ALARA Program | - July |
| * Chemistry Program | - July |
| * Hazardous Material Control | - August |

" INDUSTRY EXPERT " CONTRACTORS BUDGETED FOR 1990 AUDITS

- * Emergency Preparedness
- * Environmental Monitoring
- * Effluent Control Program
- * Transportation of Radwaste
- * Radiological Safety
- * Hazardous Material Control
- * Offsite Dose Calculation Manual

**Note: In-House Staff will be used as Available,
Contractor Personnel will be used to Supplement
as required.**

1990 NUCLEAR QUALITY SCHEDULED SURVEILLANCES

(Partial)

- * Emergency Preparedness - 4, every Three Months beginning in February
- * Environmental Monitoring and Effluent Control - 3, every Four Months beginning in April
- * Processing, Packaging and Transportation of Radioactive Materials - 3, every Four Months beginning in April
- * Radiological Safety and Control and ALARA - 4, every Three Months beginning in February
- * Chemistry - March, October
- * Hazardous Material Control - 4, every Three Months beginning in March

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SPENT FUEL POOL LEAK INVESTIGATION

**WARREN PEABODY
MANAGER
TECHNICAL SERVICES**

SPENT FUEL POOL INVESTIGATION STATUS

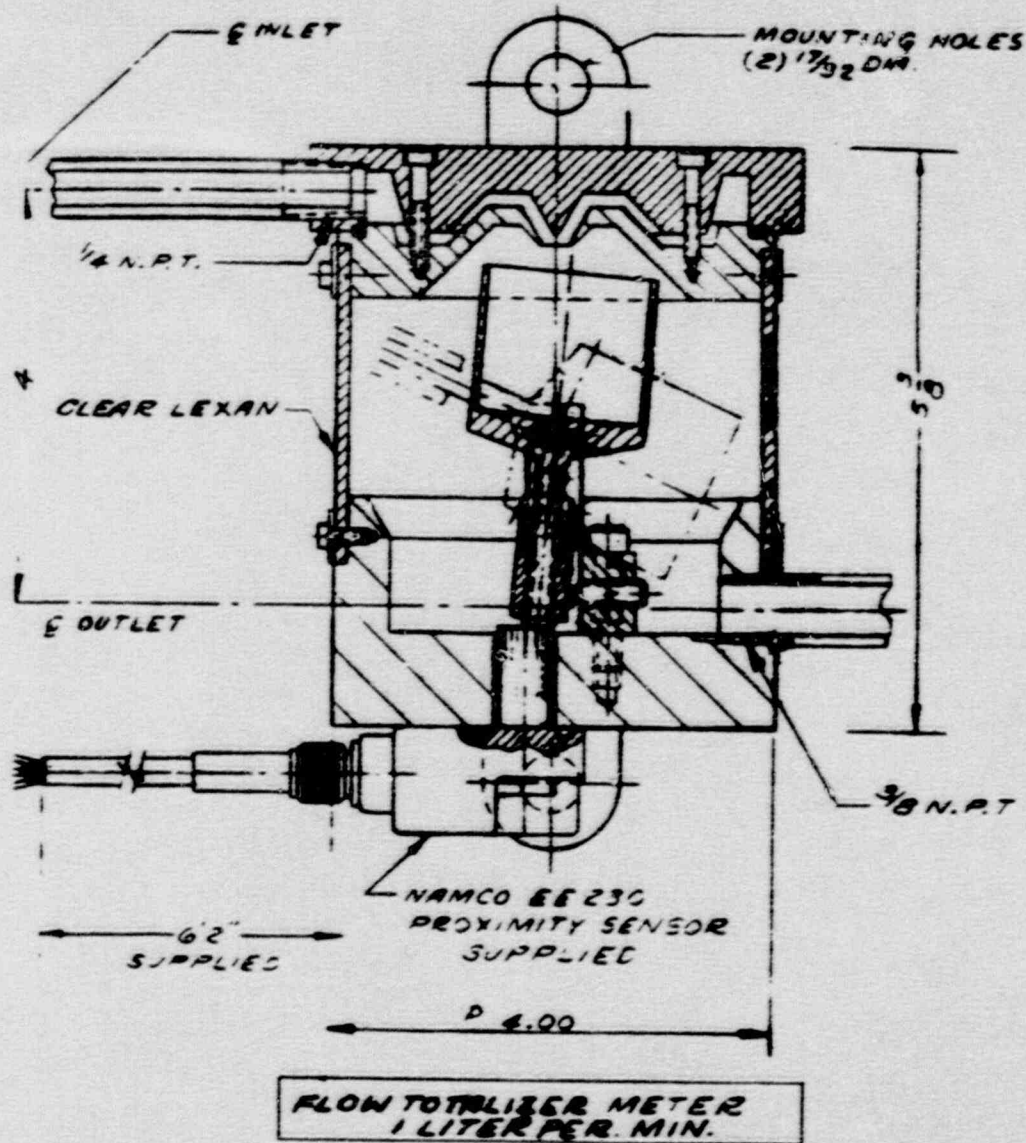
- * Submitted Interim ERTP-MO209 to NRC November 16, 1989
- * Leak Originates from the North Wall
- * Leak Measures Approximately 0.5 gal. per hour
- * Leakage Contained within the "Chase System"
- * Source of Leak not found during VBT Phase 1
- * Action Plan Revised

SPENT FUEL POOL INVESTIGATION

PLANNED INVESTIGATION

	<u>FORECAST COMPLETE</u>
* Design/Procure Materials/Construct Rack Handling Fixture	4/3/90
* Remove Spent Fuel Racks Adjacent to North Wall	4/10/90
* Evaluate Suspect Embedments - Apply Sealant - Perform Weld Repairs	5/15/90
* Complete North Wall VBT/Weld Repair if Required	TBD
* Install "Drinking Bird" Flow Meter	3/14/90
* Evaluate Results - Continue Search or Close Issue - Issue Final Report	6/15/90

SPENT FUEL POOL LEAK DETECTION FLOW INSTRUMENT



SPENT FUEL POOL SUSPECTED LEAK AREA

