DCS

FEB 22 1994

Docket Nos. 50-317
50-318

Mr. Robert E. Denton
Vice President - Nuclear Energy
Baltimore Gas and Electric Company
Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, Maryland 20657 - 4702

Dear Mr. Denton:

SUBJECT: CALVERT CLIFFS UNITS 1 AND 2 SERVICE WATER SYSTEM OPERATIONAL PERFORMANCE INSPECTION

The purpose of this letter is to document our intentions concerning the NRC inspection of the Calvert Cliffs service water systems which is scheduled to begin on February 22, 1994, as announced in our letter, dated December 28, 1993. Dr. P. K. Eapen of my staff provided these intentions to your staff during a telephone conversation on February 2, 1994.

Members of the Baltimore Gas & Electric Company made a presentation to the NRC in Region I on February 1, 1994, and discussed the results of the service water self-assessment activities conducted by two separate licensee teams during 1993. The overhead slides presented and the attendees at this meeting are included as Enclosures 1 and 2, respectively.

Based on our review of the information that you presented at the above meeting, we have modified our plans for the subject inspection. We expect that our inspection effort will be less than that specified in Temporary Instruction (TI) 2515/118 for service water team inspections but more than that specified in NRC Inspection Procedure 40501, when full credit is given for a licensee self-assessment in an area-of-emphasis inspection.

Mr. Leonard Prividy is designated as the leader for our inspection effort. The exact level of our inspection effort will be established after our inspection preparation visit during the week of February 22, 1994, and will depend a great deal on your staff's ability to demonstrate the depth, quality, and effectiveness of your self-assessments to meet TI 2515/118 inspection requirements. If you have any questions in this regard, please contact Dr. Eapen (610-337-5150) or Mr. Prividy (610-337-5140).

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IE01
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Your cooperation with us in this matter is appreciated.

Sincerely,

Original Signed By:

James T. Wiggins, Acting Director
Division of Reactor Safety

Enclosure 1 - Slides from Meeting of February 1, 1994
Enclosure 2 - Attendees from Meeting of February 1, 1994

cc w/encl:
G. Detter, Director, Nuclear Regulatory Matters (CCNPP)
R. McLean, Administrator, Nuclear Evaluations
J. Walter, Engineering Division, Public Service Commission of Maryland
K. Burger, Esquire, Maryland People's Counsel
R. Ochs, Maryland Safe Energy Coalition
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
State of Maryland (2)

bcc w/encl:
Region I Docket Room (with concurrences)
C. Cowgill, DRP
L. Nicholson, DRP
R. Fuhrmeister, DRP
P. Wilson - Calvert Cliffs
V. McCree, OEDO
R. Capra, NRR
D. McDonald, NRR

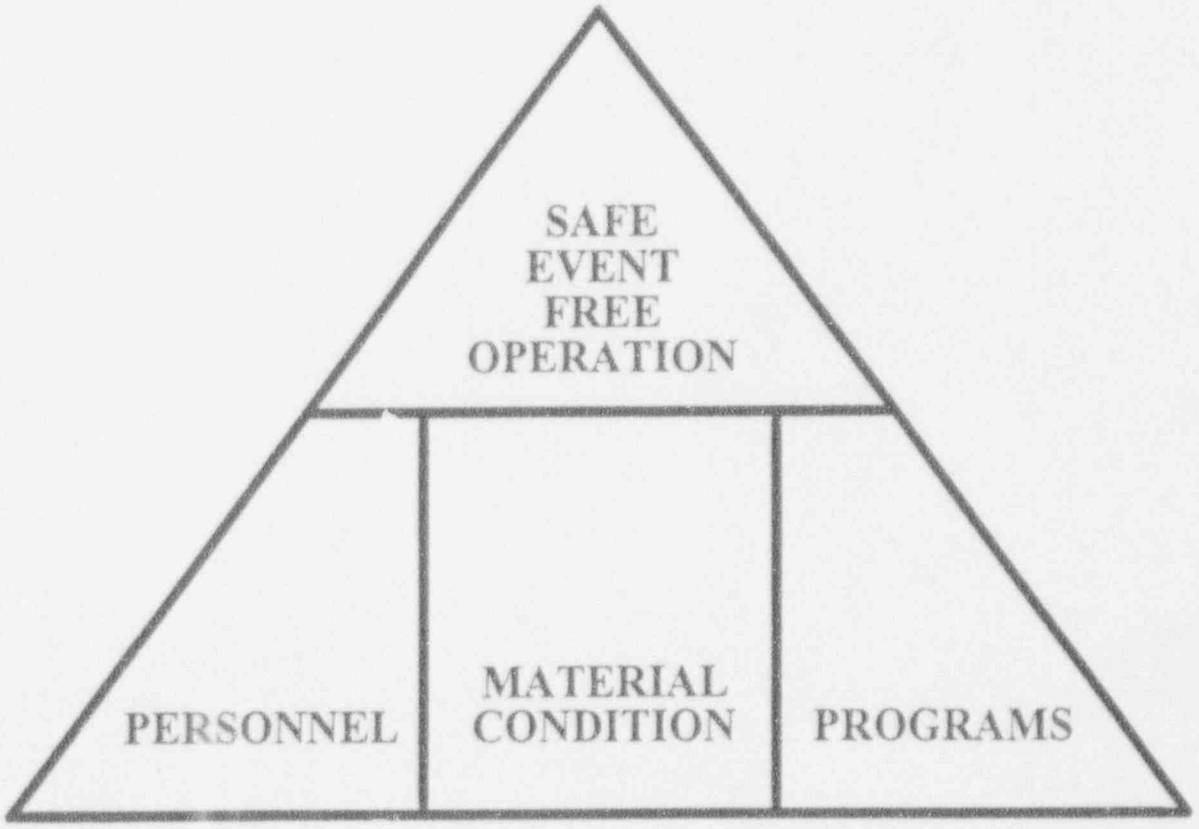
RI:DRS	RI:DRS	RI:DRS	RI:DRS	Rentelephone M. B.P. Gillespie NRR:PMAS
Prividy	Eapen	Durr	Wiggins	
2/16/94	2/16/94	2/22/94	2/22/94	2/22/94

OFFICIAL RECORD COPY
A:CCSWOPI.LTR

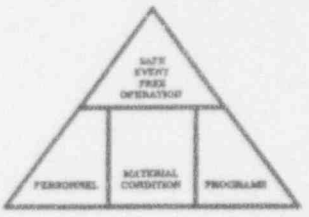
Calvert Cliffs SWSOPI

Presentation to NRC 2/1/94

- Salt Water (SW)
- Service Water (SRW)
- Component Cooling Water (CCW)

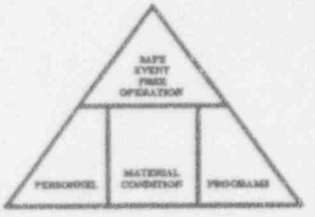


Agenda



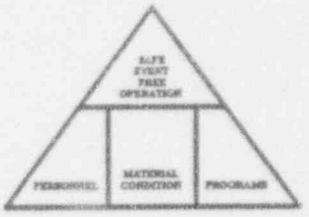
I.	Opening Remarks	P.E. Katz
II.	Calvert Cliffs SWSOPI Efforts	W.E. Kemper
III.	Programmatic Issues	R.P. Heibel
IV.	Closing Remarks	P.E. Katz

Purpose



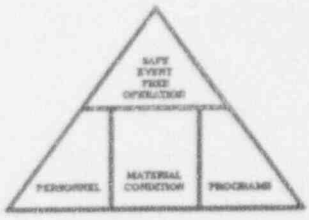
- Describe CCNPP's SWSOPI self assessment efforts, and demonstrate that these efforts warrant a reduced NRC SWSOPI per IP 40501 and TI 2515/118 which will:
  - Minimize the impact of this inspection on BG&E.
  - Optimize use of NRC and BG&E resources.

Calvert Cliffs SWSOPI Project



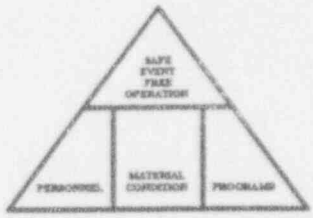
- In 1992, an independent SWS SSFI type inspection was scheduled for summer 1993 as part of CCNPP's Continuous Improvement Program.
- In February of 1993, the SWSOPI Project was established in response to continuing NRC and industry SWS concerns.
- Goals:
  - Ensure the design basis of SW, SRW, and CCW systems are consistently and accurately reflected throughout design documents.
  - Ensure that these systems are operated and maintained in a manner consistent with their design basis.
  - Ensure that these system are capable of performing their design basis function.

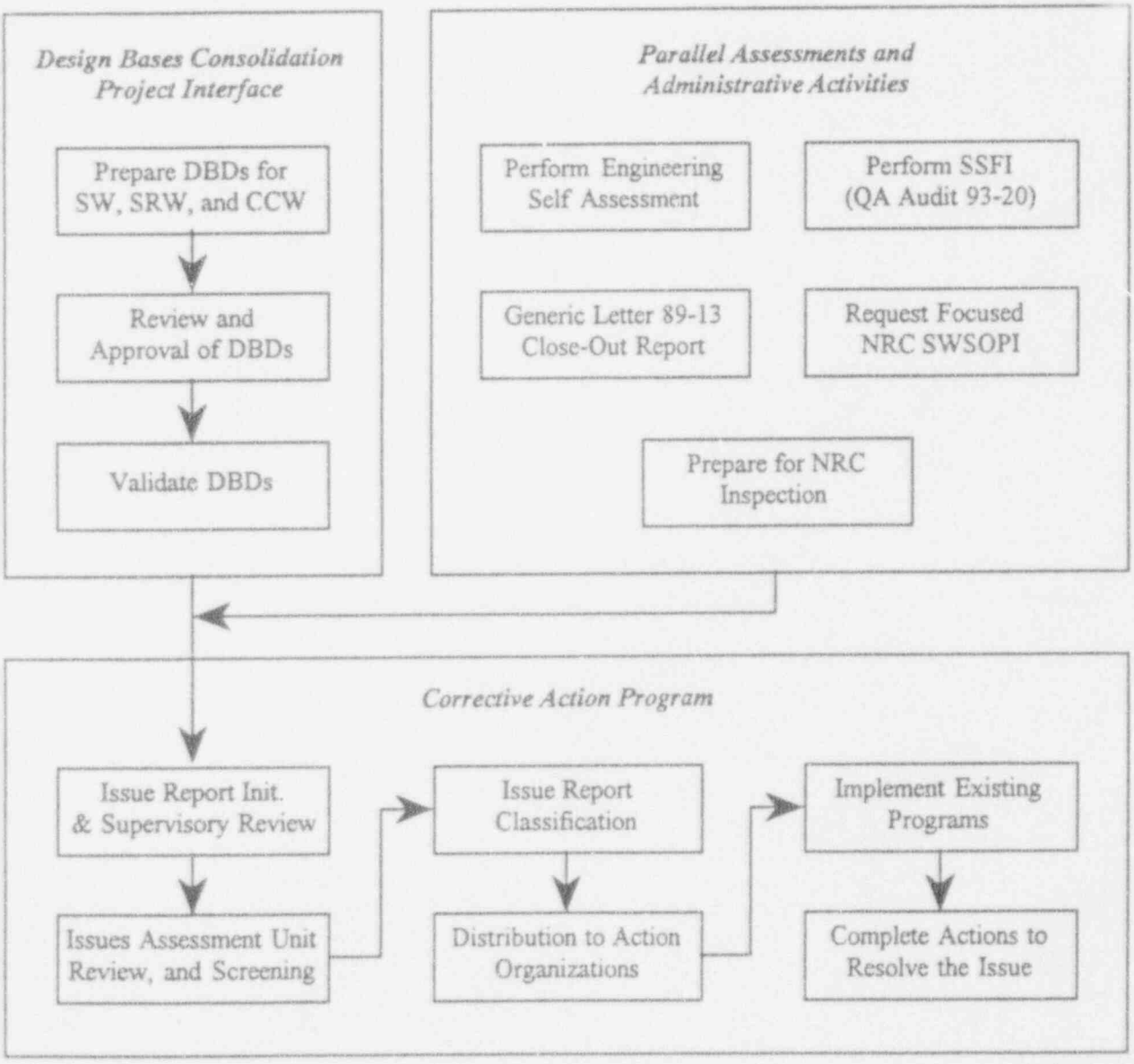
Project Strategy



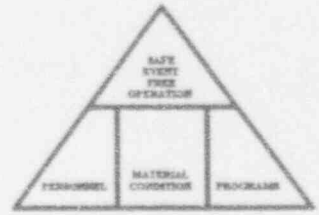
- Consolidate the design basis and significant licensing basis considerations of SWS by generating Design Basis Documents.
- Reconstitute engineering/design calculations as needed.
- Validate the DBDs for each system to ensure they are operated, maintained, and tested in accordance with their design basis.
- Self assessment activities were planned in order to:
  - Verify adequacy and effectiveness of the SWSOPI Project tasks listed above.
  - Evaluate adequacy of CCNPP response to GL 89-13.
  - Satisfy the requirements of the SWSOPI TI (TI 2515/118).

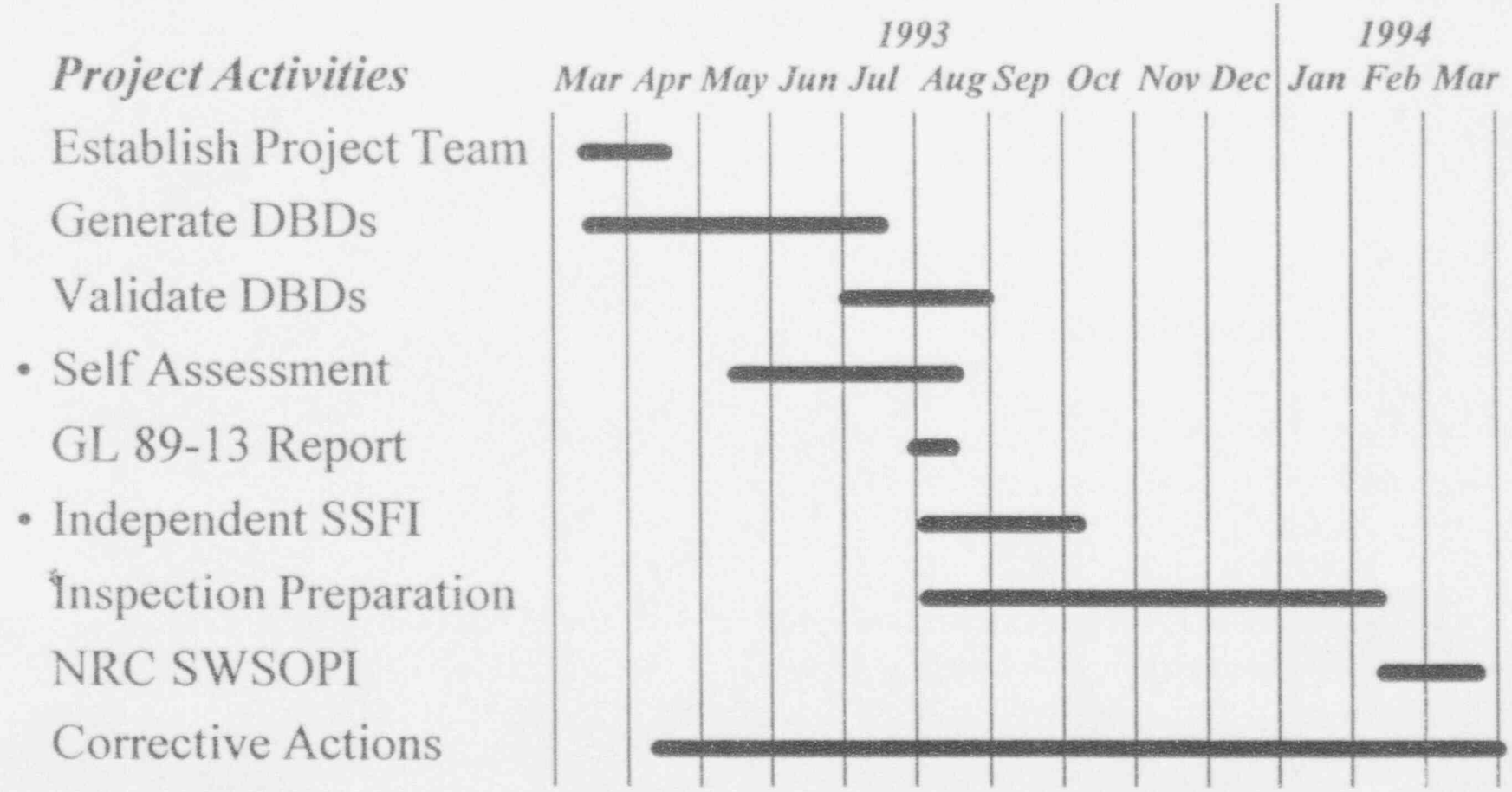
Project Overview



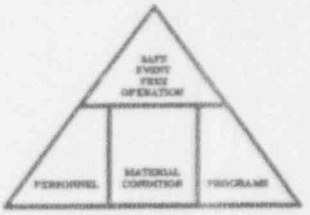


Calvert Cliffs SWSOPI Project Activities



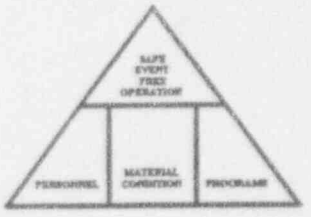


Assessment Objectives



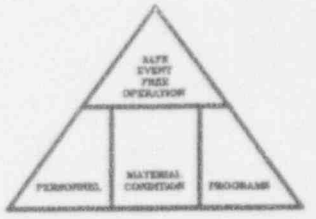
- Assess planned or completed actions in response to GL 89-13.
- Verify that the SWS is capable of fulfilling its thermal and hydraulic performance requirements and is operated consistent with its design basis.
- Assess the SWS operational controls, maintenance, surveillance and other testing, and personnel training to ensure the SWS are operated and maintained so as to perform their safety related functions.

Assessment Scope



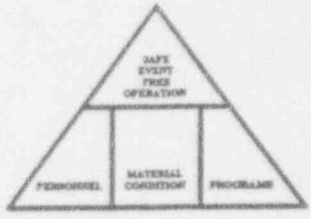
- Scope of both assessments included:
  - Open loop Salt Water Systems
  - Closed loop Component Cooling Water and Service Water systems
  - Major interfacing support systems
  - All TI 2515/118 Inspection Items including 5 functional areas:
    - Mechanical Systems Engineering Design and Configuration Control
    - Operations
    - Maintenance
    - Surveillance and Testing
    - Quality Assurance and Corrective Actions

Assessment Methodology



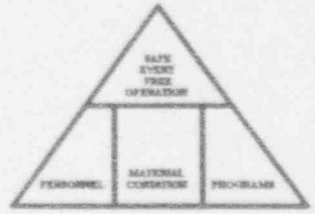
- Senior management expectations:
  - assessments will be thorough and detailed
  - immediate and complete site response
  - QA Assessment to be independent of Engineering Self Assessment
- The assessments were highly self critical:
  - negative observations were stressed
  - positive observations were not emphasized
- SSFI Vertical Slice technique
- Develop assessment plans based on TI and enveloping GL 89-13 actions
- Incorporate SWSOPI industry experience
- Required written responses to process questions and concerns

Selection of Assessment Teams

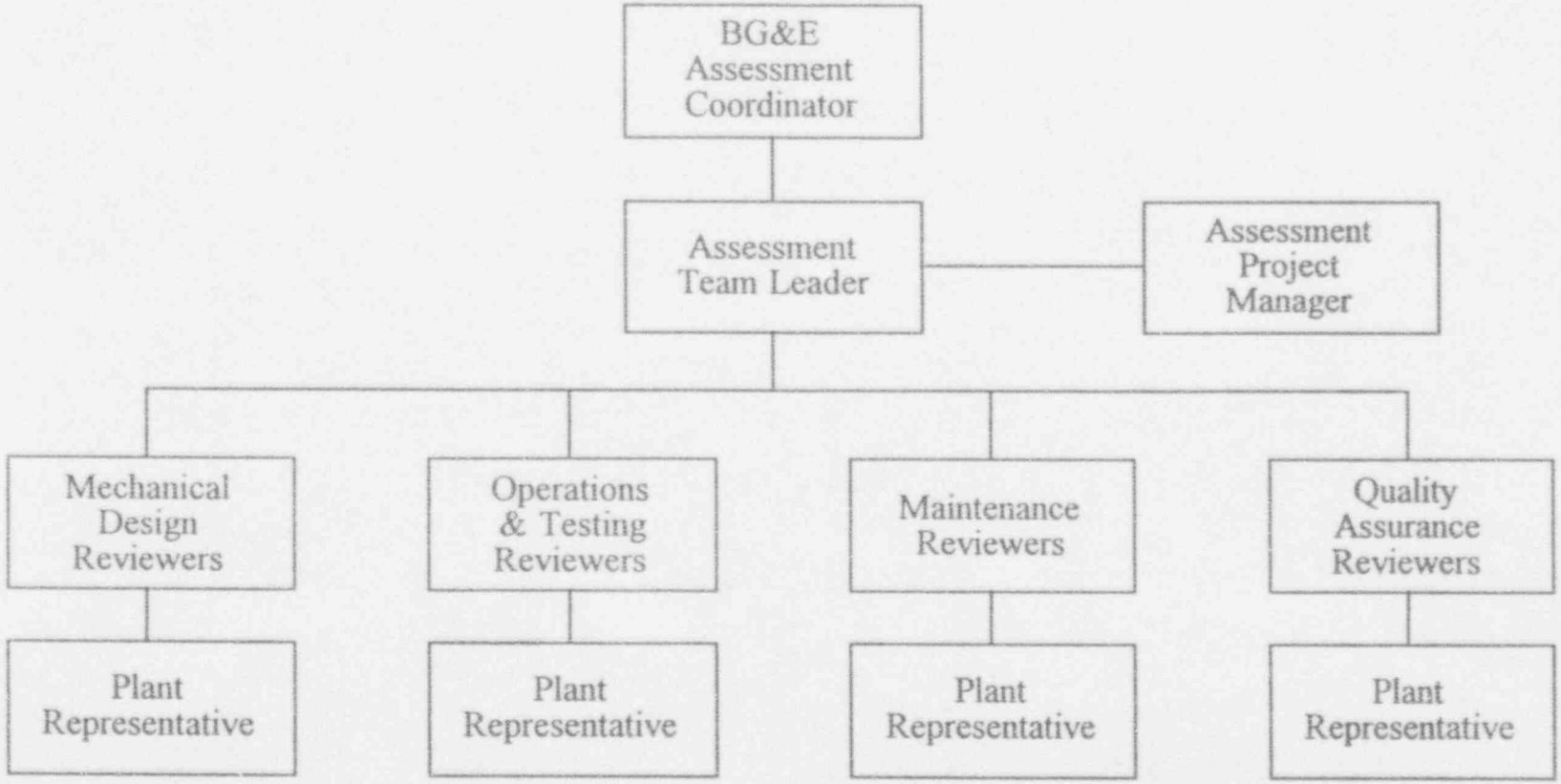


- Criteria:
  - Previous SWSOPI experience
    - Utility
    - NRC
  - Strong background in Mech. Sys Design/Engineering (AE experience)
  - Previous AE/NSSS Mech. Design Supervisory experience
  - Strong Background in Design Basis/Calculation Reviews
  - Plant Operations Experience (SRO for Ops Assessor
  - NRC management and inspection experience
  - Vertical slice inspection technique (SSFI) experience

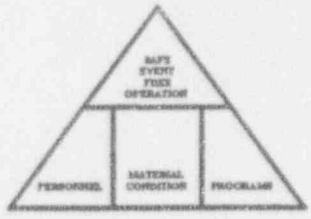
Engineering Self Assessment



- 1 BG&E and 5 full time and 3 part time contractor (UESC) personnel.

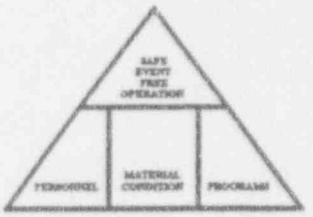


Engineering Team Qualifications



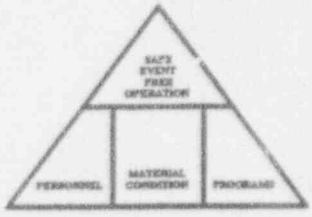
- Team Leader, Operations, Quality Assurance
  - B. Debs
    - 22 years Engineering/Nuclear experience
    - 5 years NRC Management & Inspection experience
    - Involved in over 30 SSFIs, both utility and NRC
    - Developed several utility SSFI programs
    - Trained >400 utility personnel on SSFI techniques
- Self Assessment Coordinator
  - P.A. Penn (P.E.)
    - 15 years Engineering/Nuclear experience
    - Current BG&E SWSOPI Project Manager
    - NSSS Design experience
- Self Assessment Project Manager
  - M. Stephens
    - 22 years Engineering/Nuclear experience
    - NSSS Mechanical Design Supervising Engineer (6 years)
    - 9 years NSSS/5 years AE Mechanical Design Experience

Engineering Team Qualifications



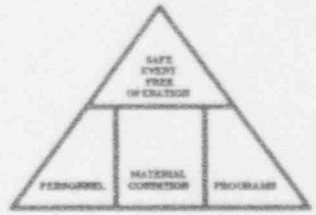
- Mechanical Systems Engineering Design Review
  - M. Lane (P.E.)
    - 15 years Engineering/Nuclear experience
    - 10 years AE Mechanical Design/Project Management experience
    - Mechanical design calculation assessment experience
  - D. Gruber
    - 13 years Engineering/Nuclear experience
    - NRC Technical Staff Experience
    - Design Basis Reconstitution, Technical Specification Improvement, and Safe Shutdown Analysis
  - R. McAdams (P.E.)
    - 8 years Engineering/Nuclear experience
    - Thermal/hydraulic analysis and design change experience
    - Utility Systems Engineering experience

Engineering Team Qualifications

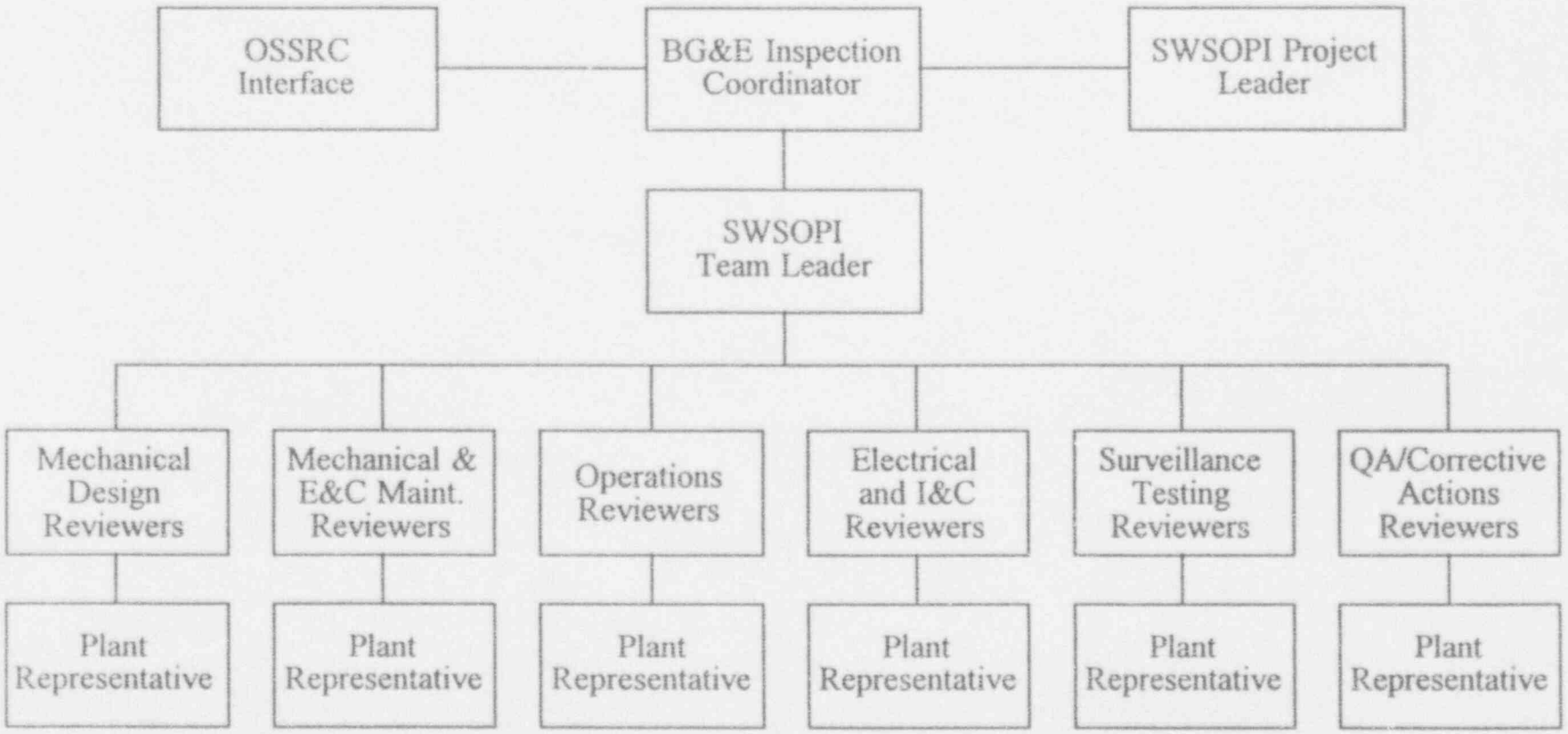


- Surveillance and Testing
  - F. Mulcahy
    - 23 years Engineering/Nuclear experience
    - 9 years utility experience including startup testing, construction design review, ISI program development
    - NRC Licensed Senior Reactor Operator
- Operations, Maintenance
  - G. Preston
    - 15 years Engineering/Nuclear experience, 24 years power plant experience
    - Utility Experience as Operations Manager, Director of Nuclear Training, and Director of Nuclear Plant Safety
    - NRC Licensed Senior Reactor Operator
- Maintenance
  - T. Carter
    - 12 years Engineering/Nuclear experience
    - NRC experience, including Maintenance Team Inspections and SSFIs

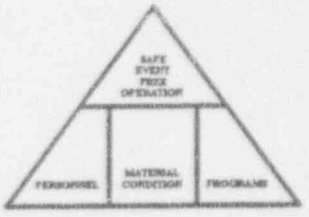
Independent QA Assessment



- 6 BG&E and 7 contractor (Ogden) personnel.

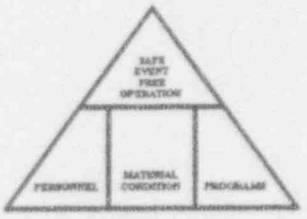


QA Team Qualifications



- Team Leader, Electrical and I&C
  - S.F. Kobylarz (P.E.)
    - 20 years Engineering/Nuclear experience
    - Team Leader/Member on utility-sponsored Inspections/Assessments
    - Former AE Supervising Engineer
    - NRC SSFI Team Member, including SWS
- Inspection Coordinator, QA and Corrective Actions
  - R.J. DeAtley
    - 15 years Nuclear Power experience
    - Certified Lead Auditor (ANSI 45.2.23)
    - Leader for SSOMI and EDSFI at CCNPP
- Mechanical Design
  - S.M. Klein (P.E.)
    - 31 years engineering experience, 24 in Nuclear Power
    - Former AE Supervising Engineer
    - AE SWS design-engineer
    - Utility SWSOPI experience
    - NRC SSFI Team Member, including SWS
    - Trained NRC personnel on SSFI techniques

QA Team Qualifications

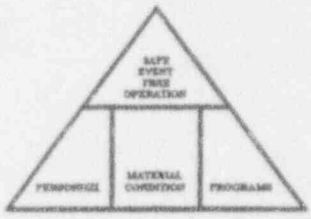


- Mechanical Design
  - J.S. Gray (P.E.)
    - 21 years engineering experience, 17 in Nuclear Power
    - Former AE Supervising Engineer
    - Current Senior Design Engineer for BG&E
  - P.J. Lindsay
    - 4 years Engineering/Nuclear experience
    - Utility SWSOPI & SSFI experience
    - Mechanical systems Design Basis Documentation author
- Electrical and I&C
  - V.J. Suchodolski
    - 5 years Engineering/Nuclear experience
    - Utility-sponsored EDSFI/SSFI Team Member,
    - Electrical Design Basis Documentation preparation
- Surveillance Testing
  - J. S. Fuoto (P.E.)
    - 21 years Engineering/Nuclear experience
    - NSSS vendor engineering experience
    - Start-up and low power test experience

QA Team Qualifications

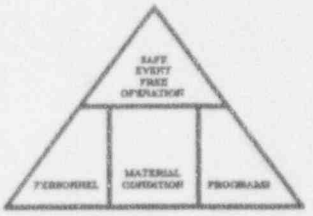
- Operations
  - T. S. White
    - 10 years experience, 7 in Nuclear Power
    - Utility SSFI Team Member
    - NRC SSFI & MI Team Member
  - P. D. Naley
    - 15 years experience in Nuclear Power
    - NRC Licensed Senior Reactor Operator (at CCNPP)
- Mechanical and E&C Maintenance
  - R.W. Conklin
    - 10 years Nuclear Experience
    - Nuclear Power experience Mech Maintenance Engr Technician at CCNPP
  - A.J. Fissel
    - 10 years Nuclear Power experience
    - INPO certified I&C Technician at CCNPP
  - R.W. DeNight, Jr.
    - 4 years Engineering/Nuclear experience
    - Utility SSFI Team Member
    - Former Utility Mech Maintenance Engineer

QA Team Qualifications



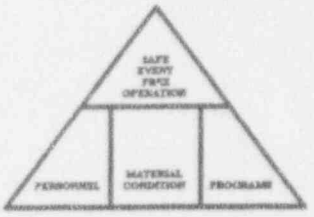
- QA and Corrective Actions
  - L.D. Smith
    - 7 years Engineering/Nuclear experience
    - Certified Lead Auditor (ANSI 45.2.23)

Pre-Assessment Activities



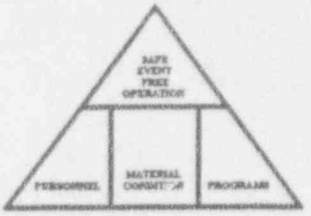
- Assessment Kick-off Meetings
- Data collection and review
- Develop Critical Attributes Matrix and Technical Review Plan
  - TI elements
  - Industry experience review
- Team training

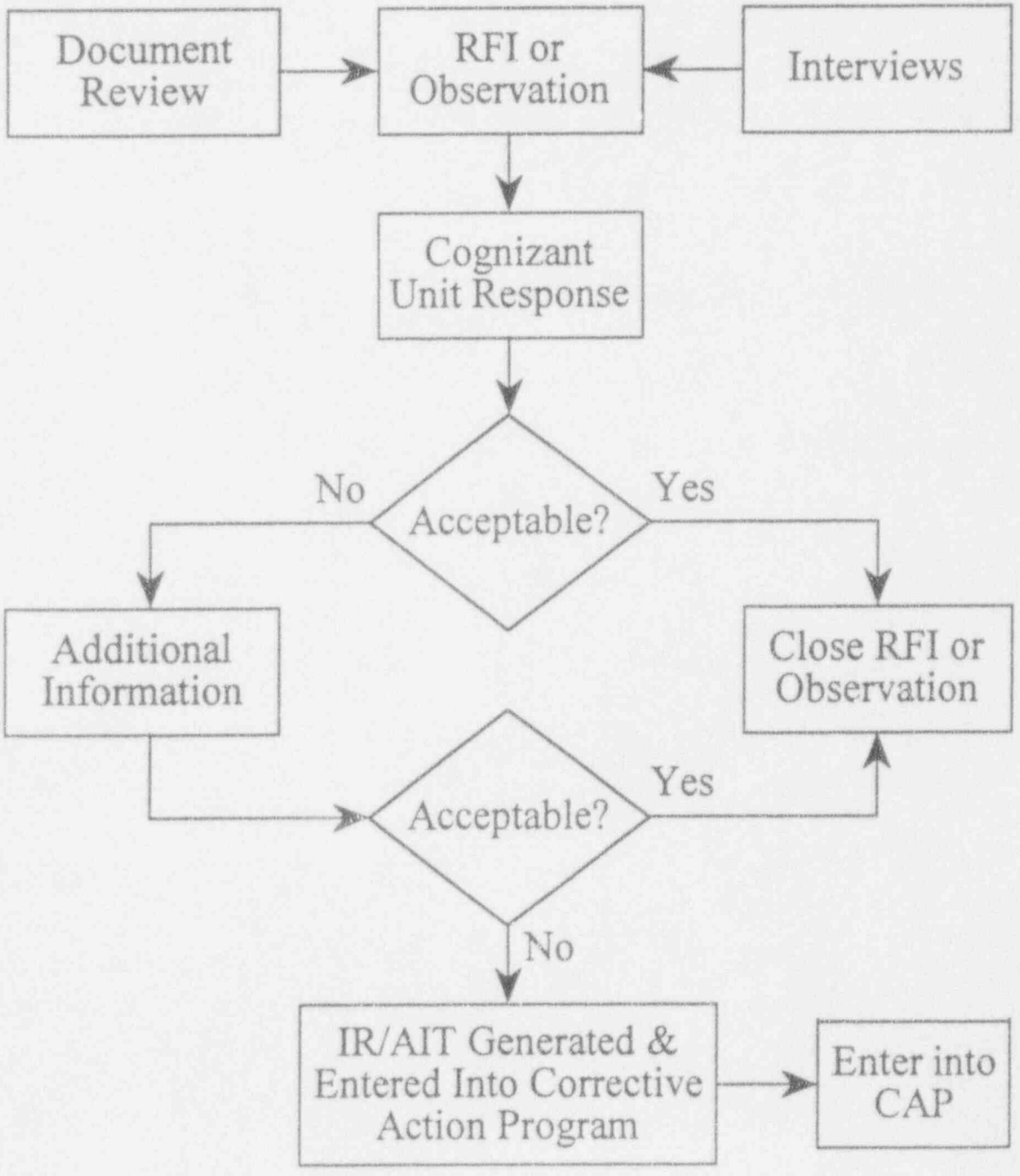
Assessment Activities



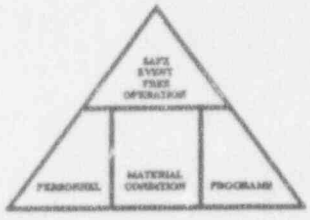
- Self Assessment
  - 8 week on site effort.
  - 48+ person weeks
- Independent Assessment
  - 3 weeks on site, 2 weeks off site.
  - 65 person weeks
- Documentation review
- Interviews & Field Observations
- System walkdowns
- Daily Team Meetings
- Question/concerns processing
  - RFIs
  - Observations
  - BG&E Response
  - Corrective Action

Resolution Processing



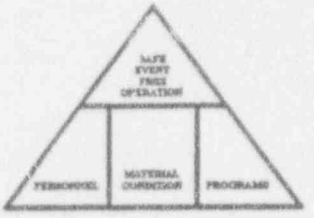


Post-Assessment Activities



- Formal Exit Meeting
- Report Writing
  - Strengths
  - Weaknesses
  - Findings
  - Recommendations
  - Illustrate TI coverage (Attachment A)

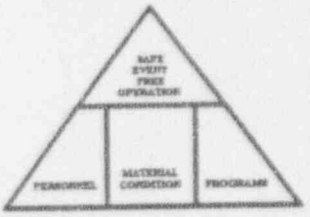
In-Depth TI Coverage



Level of Effort
Engineering/Independent QA Assessment

- 49/37 SWS calculations
- 54/64 flow diagrams, schematics, and other drawings
- 98/37 STPs and ETPs
- 44/24 OIs, AOPs, and EOPs
- Repetitive Tasks, Checklists, and MO histories for 40/49 components
- Over 280/200 additional documents including:
  - Training documents
  - FCRs, FECs, and MCRs
  - Docketed Correspondence
  - Program plans
  - Letters and Memoranda
  - Trend data
  - Meeting minutes
  - Vendor Manuals
  - QAU Audits
  - Calibration packages
  - SERs and Supplements
  - Technical Specifications and Interpretations

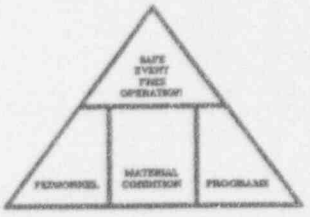
In-Depth TI Coverage



Depth of Assessments (Engineering Assessment Example)
Design Basis Parameter: Service Water (SRW) Pump Performance

- Mechanical Systems Engineering Design & Configuration Control
  - Reviewed Safety Analysis, Containment Response Calculations, EDG cooling requirements, Flow Calculations, IST Program, System Design and Licensing Bases to:
    - Independently establish SRW pump performance requirements
    - Verify consistency between MEU calculations and, NEU analysis, Operating Procedures, and SRW Pump Testing
  - Compared SRW system design documents/as-built configuration with calculation assumptions
  - Compared physical pump performance based on vendor specifications, preoperational test data, and STP results with theoretical pumps used in SRW flow analysis model
  - Reviewed SRW modifications which affect pumps to verify adequacy of 50.59 evaluations
  - Reviewed SRW NPSH Calculation
    - Verified use of proper pump vendor NPSH data
    - Verified basis for SRW Head Tank Low Level Alarm Setpoint

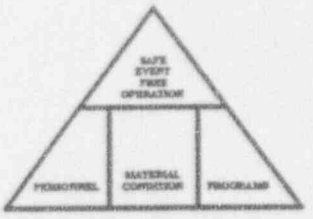
In-Depth TI Coverage



- Identified design basis operator response time to establish SRW makeup

- Operations
  - Plant Simulator and In-plant Scenario Walk-through conducted to:
    - Verify ability of operators to establish SRW make-up within assumed 90 minute time period.
    - Evaluate adequacy of existing Annunciator Response/Operating Procedures
    - Assess effectiveness of operator training
    - Determine availability of special equipment required to establish SRW makeup
    - Observe local operation of equipment
  - Walkdowns conducted to confirm physical configuration and system lineup consistent with design documents and administrative control procedures (e.g., locked valves)
  - System operating procedures and associated SRW instrumentation reviewed for consistency with design calculation considerations
  - Assessed measures implemented to assure SRW pump operation, including:
    - System venting to prevent pump cavitation

In-Depth TI Coverage



- Monitoring SRW parameters to ensure minimum pump flow remains above vendor recommended minimum

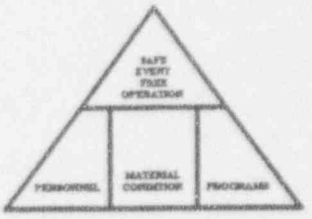
- Maintenance
  - Reviewed Pump Vendor Technical Manuals/Maintenance Procedures/Pump Overhaul Procedures for consistency
  - Pump Maintenance History reviewed for trends in pump unavailability and performance
  - Reviewed training records and conducted interviews to determine the qualification level and technical knowledge of maintenance personnel
  - Evaluated Post Maintenance Test Procedures for adequacy in determining pump operability following maintenance/repairs
  - Reviewed completed pump Maintenance Work Orders for procedural compliance, recurring deficiencies
- Surveillance and Testing
  - Reviewed STPs and IST Program for adequacy of monitoring SRW pump performance / Operability evaluations (e.g., pumps capable of performing as assumed in calculations)
  - Reviewed SRW Test Procedures and test results for testing performed per GL 89-13

In-Depth TI Coverage

- Reviewed 3 years of STP results to ascertain pump performance trends, and assess IST program adequacy to detect pump degradation / initiate corrective actions
- Reviewed preoperational test program results to compare installed pump performance with vendor specifications and design requirements
- Reviewed I&C Procedures for testing SRW head tank level instrumentation / Alarm setpoint - to verify consistency with calculations (e.g., allowance for setpoint tolerance, instrument error)

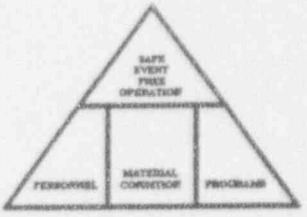
- Quality Assurance and Corrective Actions
  - Reviewed CCNPP LERs to identify previous SRW pump operability issues; assess adequacy of root cause determinations and corrective actions
  - Evaluated effectiveness of interface between design engineering, plant engineering, and operations through review and comparison of calculations, ETPs, STPs, IST Program documents, etc.
  - Assessed use of the Action Item Tracking System to identify, track, and thoroughly evaluate self-identified issues which may have impacted SRW pump performance

In-Depth
TI Coverage



- Conclusions
  - SRW Pumps are capable of providing adequate flow to all safety-related loads during postulated design basis accident conditions
  - Flow models and associated calculations are being effectively used to support IST program activities
  - Maintenance and testing activities provide assurance of SRW pump operability

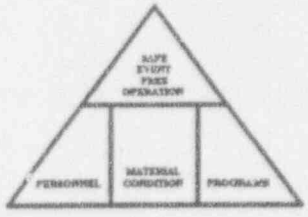
In-Depth TI Coverage



Depth of Assessments (QA Assessment Example)
Design Basis Parameter: Salt Water (SW) Flow

- Mechanical Systems Engineering Design & Configuration Control
  - Reviewed FSAR, Technical Specifications, and Design Documentation to Identify Flow-Related Design and Regulatory Requirements
  - Determined SW Interface Requirements for SRW and CCW systems (HX Required Flow Rates)
  - Reviewed the SW System Flow Model which demonstrates adequate SW flow under design basis conditions:
    - Reviewed model methodology and inputs, confirmed valve alignments using drawings and walkthroughs, and reviewed operating procedures and practices
    - Reviewed the sources of and adequacy of pressure drops used for heat exchangers, piping, and valves in the flow model.
    - Verified consistency and reasonableness of design assumptions or assumed operator actions by comparison with industry standards and experience.
    - Verified that the effect of non-seismic equipment, structures or components on safety-related (Category I) portions of the SW are taken into account in the flow model

In-Depth TI Coverage

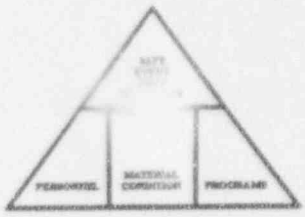


- Verified that "worst-case" conditions are used in demonstrating adequate flows to safety-related HXs in the flow model such as using the high and low-intake water levels, maximum allowable strainer dPs, maximum allowable pump degradation per IST requirements
- Reviewed model methodology and reasonableness of results in order to confirm the model represents plant conditions.

- SW Modifications Were Reviewed to Determine the Effect on the SW Flow Model in Meeting Established Commitments and Design Requirements

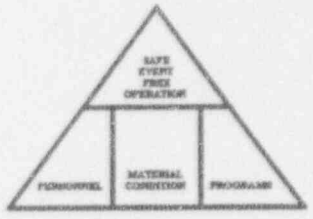
- Operations
  - Procedures used to align and verify alignment were reviewed to ensure proper system configuration in accordance with design basis requirements as defined in flow analyses (flow model).
  - Walkthroughs were performed to verify proper system configuration using drawings and operating procedures.
  - System monitoring (instrumentation) was reviewed with respect to being able to assure proper accident flow monitoring and routine log requirements.

In-Depth TI Coverage



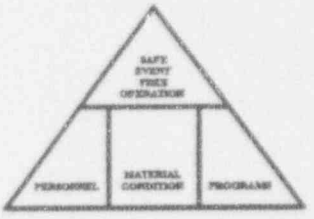
- Maintenance
  - Witnessed in plant maintenance practices affecting SW flow such as bulleting of SW/SRW heat exchanger. Witnessed material condition of trash racks, traveling screens, and intake structure.
  - Maintenance histories for the SW pumps, SW/SRW heat exchangers, and SW system butterfly valves were reviewed to determine adverse trends or recurring problems.
  - Reviewed Programs/Processes for evaluating and quantifying the extent of biofouling, silt deposition, etc. on SW components and piping.
  - Witnessed SW pump refurbishment.
- Surveillance and Testing
  - STPs Reviewed to Assure Capability to Deliver Flow Rates Used in Design Analyses (Models)
  - IST surveillance trending for SW pumps was reviewed and IST test results and methodology were compared with flow model assumptions.
  - Reviewed results from SW/SRW HX Bulleting/Tube Scraping Program with respect to HX Fouling Factors Used in Flow Models

In-Depth TI Coverage



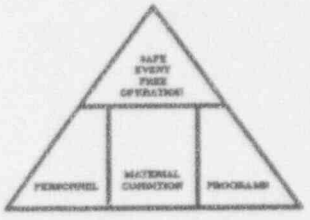
- Quality Assurance and Corrective Actions
  - Reviewed recent IST Pump & Valve Issues and STP changes
  - A review of SW-system related LERs, NPRDS reports, 10 CFR 50.72 reports, NCRs, and PDRs for adequacy of root cause analyses.
  - Reviewed open and closed items within the Action Tracking System for timeliness and effectiveness of corrective actions.
- Conclusions
  - Adequate Flow will be supplied to safety-related heat exchangers during design basis accident conditions.
  - The flow models are comprehensive, well-documented, and detailed (some weaknesses in the flow models were identified).
  - Operations, Maintenance, and Surveillance activities ensure that adequate SW flows will be provided.

Assessment Results



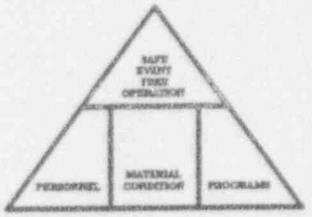
- Self Assessment completed:
  - 89 Requests For Information resulting in 32 issue reports.
- QA Audit 93-20 completed:
  - 48 observations resulting in 6 audit findings
- Overall assessments conclusions were consistent.
- All assessment issues are entered into the normal corrective action process or fall within the scope of GL 89-13 Project actions.
- Corrective Action Plan issued which permits tracking, closure verification, and management oversight of the process

Assessment Results



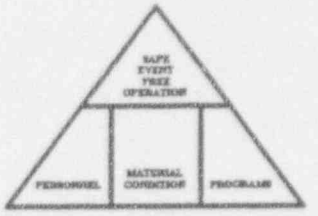
- Strengths (Self Assessment)
  - Good material condition:
    - SW piping and valve replacements.
    - Good chemistry on closed systems.
    - Degradation is minimized/controlled.
  - Design basis documentation is thorough and accurate.
  - Material condition of the Auxiliary Building is very good.
  - Engineering personnel and licensed operators were found to be knowledgeable and competent.
  - Plant staff were aware of operational issues and problems associated with SWS.
  - GL 89-13 test procedures were well written and designed.

Assessment Results



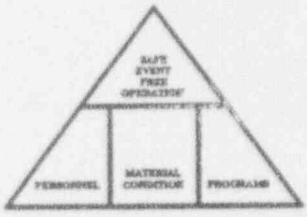
- Weaknesses (Self Assessment)
  - In Service Test (IST) program inconsistencies
  - Administrative controls/consistency of information between engineering, operations, and maintenance
  - Determination of Past Reportability
  - Timeliness of Generic Letter 89-13 close-outs

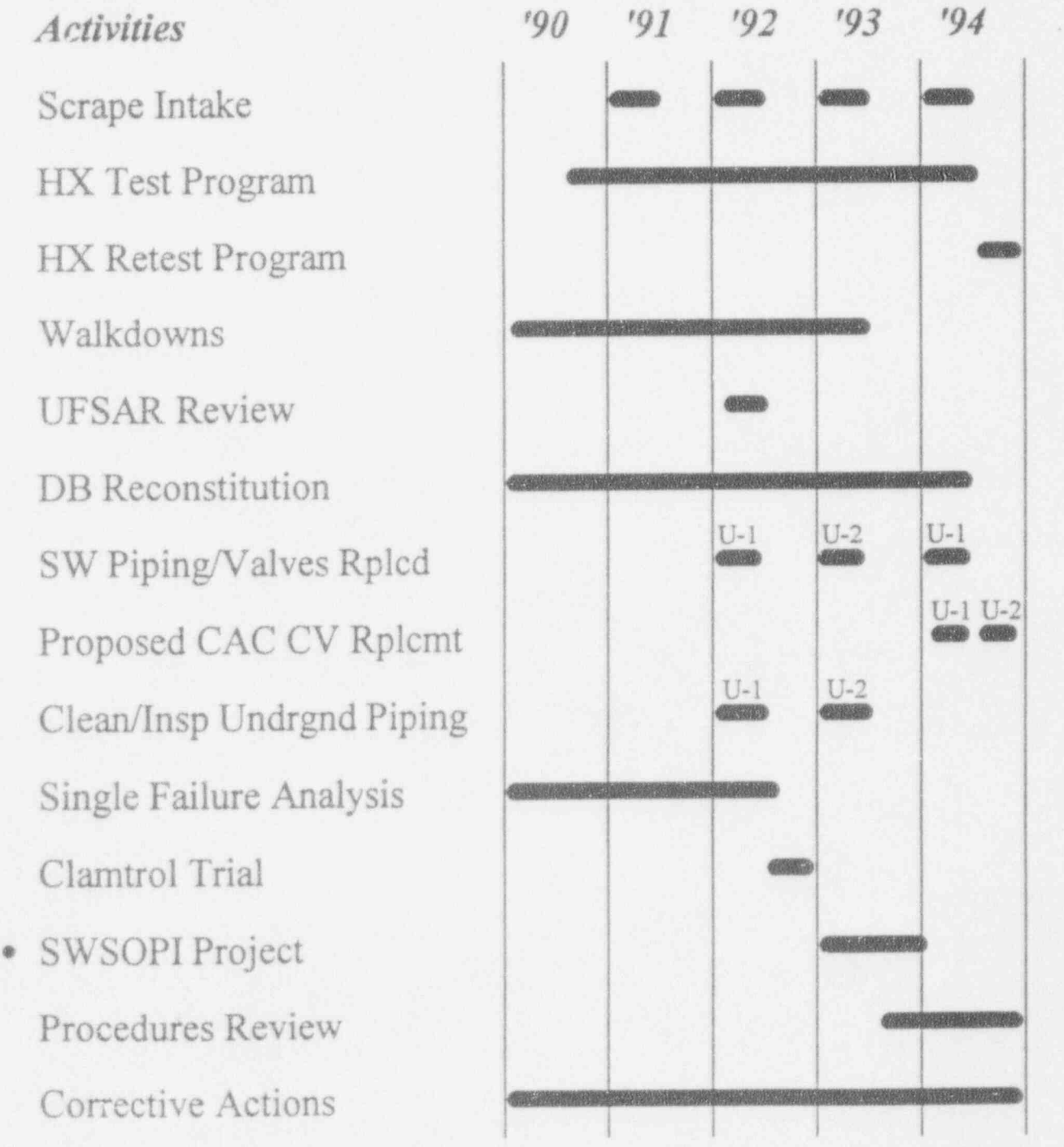
Overall Assessment Conclusions



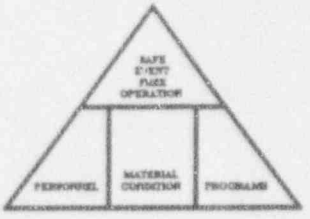
- Confirmed that the Salt Water (SW), Service Water (SRW) and Component Cooling Water (CCW) systems are capable of fulfilling their safety related thermal and hydraulic performance requirements and maintained in a manner consistent with their design basis.
- Confirmed that CCNPP's planned or completed actions regarding GL 89-13 recommendations were adequate.
- No issues identified were safety significant individually or in aggregate.

Major SWS Improvements



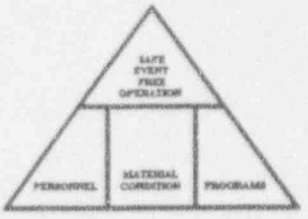


Continuous Improvement



- SSFI process initiated in 1987 as Calvert Cliffs Continuous Improvement Initiatives.
- SSFIs completed on 4 safety systems: AFW ('87), LPSI ('89), EDS ('91), and SWS ('93).
- SWS SSFI was scheduled in 1992.
- SSFI effectiveness/results
- Management issues

Assessment Results

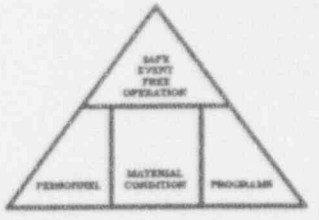


- Strengths (QA Assessment)
  - Dedicated and knowledgeable technical staff
  - Task IV efforts of GL 89-13 are extensive and comprehensive
  - Availability of information in NUCLEIS/AIT
  - Material condition of Auxiliary Building for Salt Water, Service Water, and Component Cooling Water system components
  - Effective Plant Labeling Program for areas observed
  - Knowledgeable and competent licensed operators for system operations and familiarity

Assessment Results

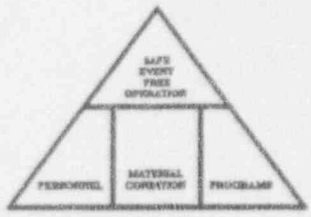
- Weaknesses (QA Assessment)
  - Trending Program
    - GL 89-13 Heat Exchanger Biofouling Data
    - Pump Performance/Repeatability
    - Instrumentation
  - Attention to Detail
    - Maintenance
    - Design Changes/Modifications
  - Plant Program Issues
    - GL 89-13 training and inspection/acceptance criteria.
    - Controlotrons
    - Timeliness of STP/IST program changes

Assessment Management Issues



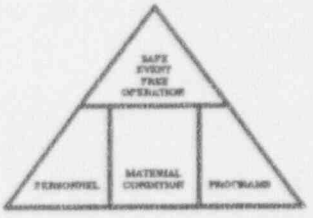
- Many of the weaknesses were known and being addressed by BG&E personnel, however, there were other issues not previously identified which are now in the Corrective Action Program.
- GL 89-13 Assessment identified minor closeout items which need to be evaluated and addressed.
- Resolution of one Reportability evaluation was considered protracted.
- Resolution and close-out of certain other issues was considered protracted.

Closing Remarks



- A reduced scope NRC SWSOPI is consistent with:
  - Temporary Instruction (TI) 2515/118 which allows for implementation latitude.
  - IP 40501 which provides a process for licensee self assessment in lieu of full scope NRC SWSOPI.

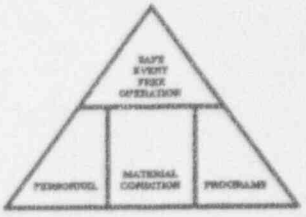
Closing Remarks



Criteria Satisfaction

- CCNPP has an overall SALP rating of 1.5 (with a rating of 1 in engineering)
- Performed two recent assessments based on TI 2515/118.
- Assessments were:
  - broad (open and closed loop systems) and in depth (over 100 person-weeks expended).
  - utilized vertical slice method, were performance based and self critical consistent with NRC inspections.
  - covered planned and completed actions in response to GL 89-13.

Closing Remarks



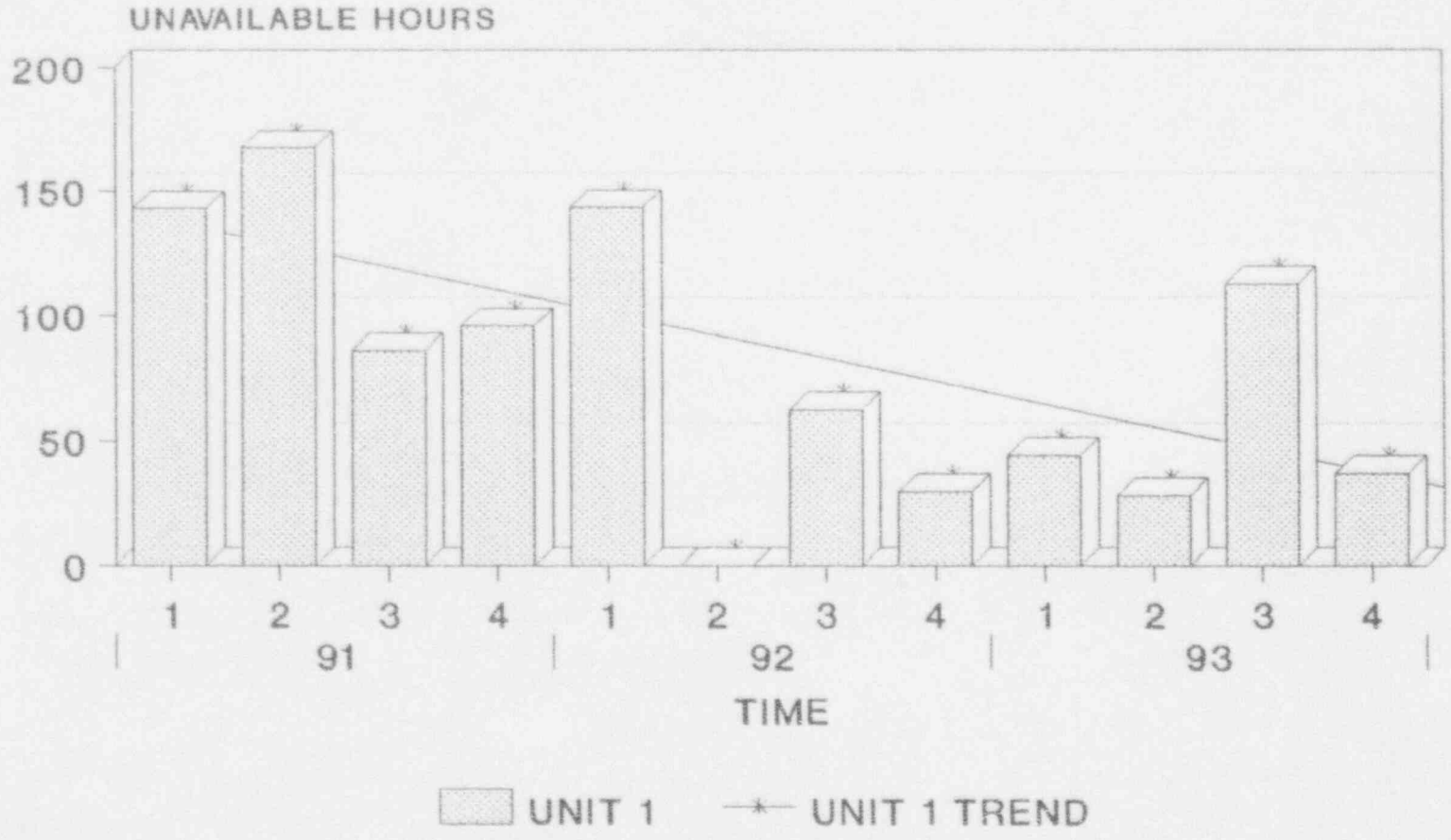
Criteria Satisfaction

- Issues and concerns from other utilities were reviewed for applicability to CCNPP.
- Assessments were performed by technically qualified teams.
- Developed and implementing Correction Action Plan to resolve assessment findings (independently monitoring closure actions).
- SWS have undergone significant improvements and these systems continue to improve in operation.

Closing Remarks

- CCNPP has been proactive in performing SWS assessments and responding to SWS problems.
- For these reasons a reduced NRC SWSOPI is warranted, thereby minimizing the impact on BG&E and NRC.

CALVERT CLIFFS SALT WATER SYSTEM
HEADER UNAVAILABILITY
(JAN 1991 THRU DEC 1993)



CALVERT CLIFFS SALT WATER SYSTEM
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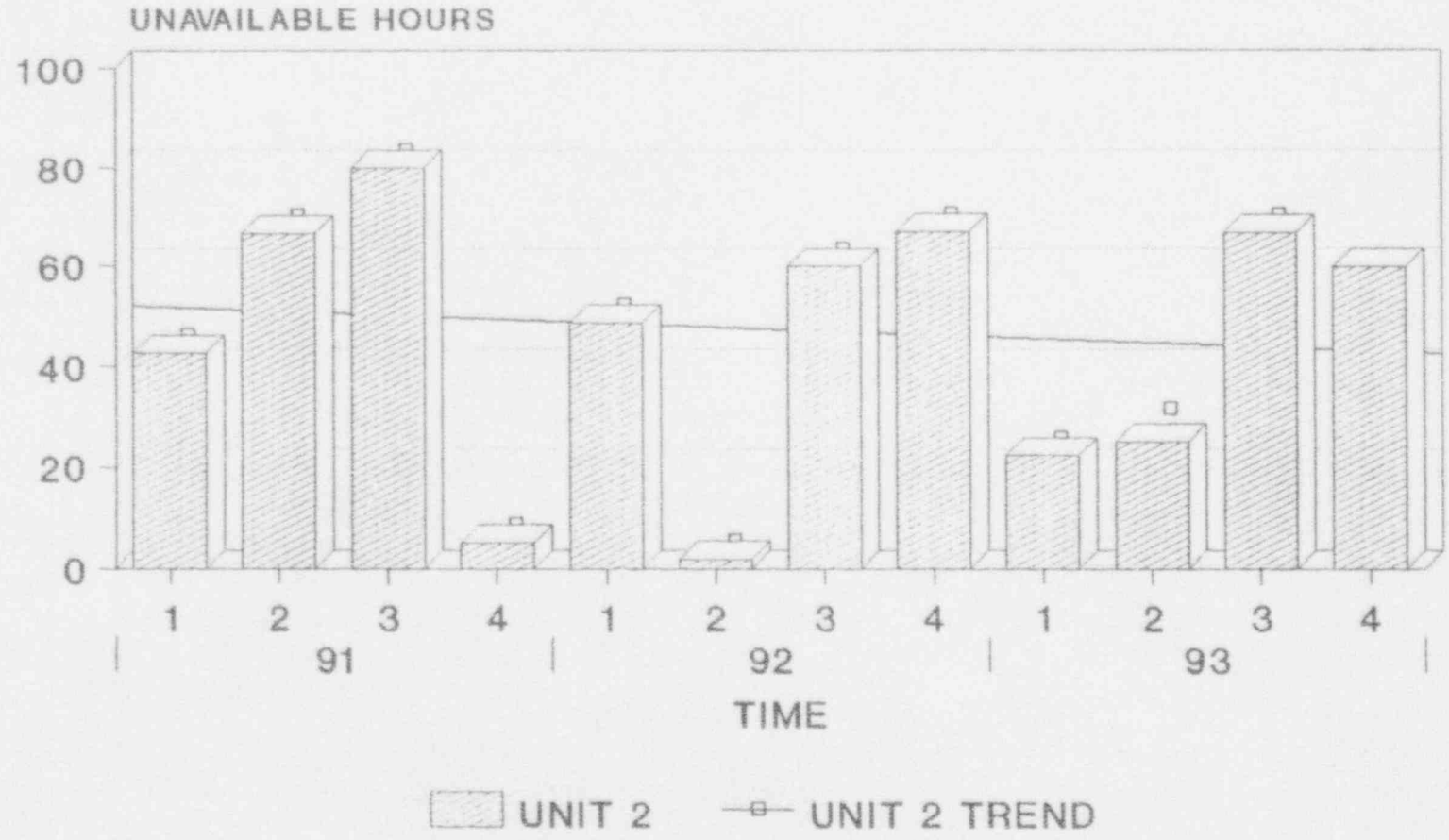

ENCLOSURE 2

Attendees - Meeting of February 1, 1994

Baltimore Gas and Electric Company

G. L. Detter
R. P. Heibel
P. E. Katz
W. E. Kemper
J. Osborne
P. A. Penn

Contractor - Ogden

S. Kasylact
S. M. Klein

Contractor - UESC

B. T. Debs
D. B. Gruber

U.S. Nuclear Regulatory Commission

R. A. Capra, NRR
C. Cowgill, DRP, RI
P. Eapen, DRS, RI
R. L. Fuhrmeister, DRP, RI
T. Kenny, DRS, RI
D. G. McDonald, NRR
D. Moy, DRS, RI
D. P. Norkin, NRR
M. W. Peranich, NRR
J. T. Wiggins, DRS, RI
L. Prividy