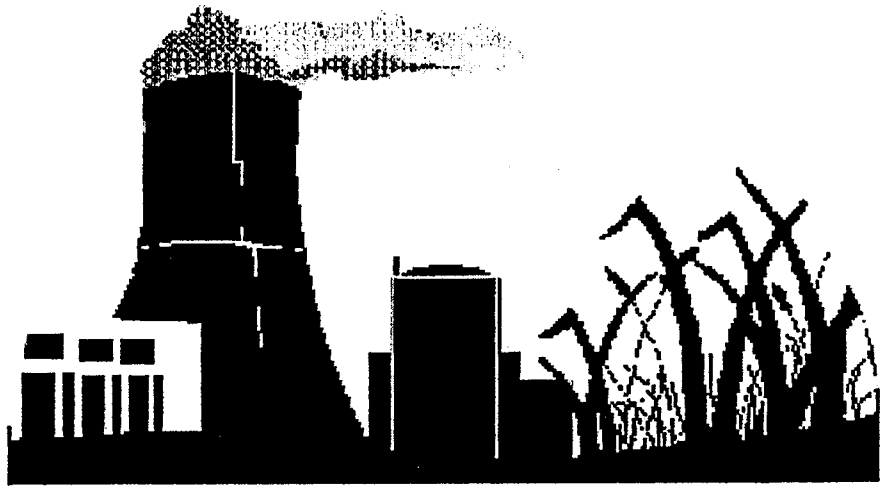
Davis-Besse Nuclear Power Station



Return to Service Plan Update

July 16, 2002

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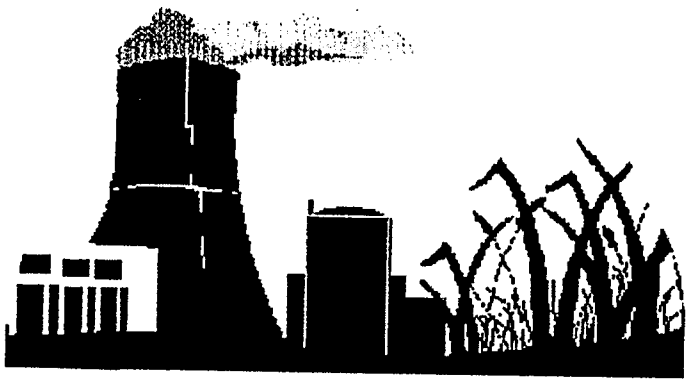
Introduction



Lew Myers
FENOC Chief Operating Officer

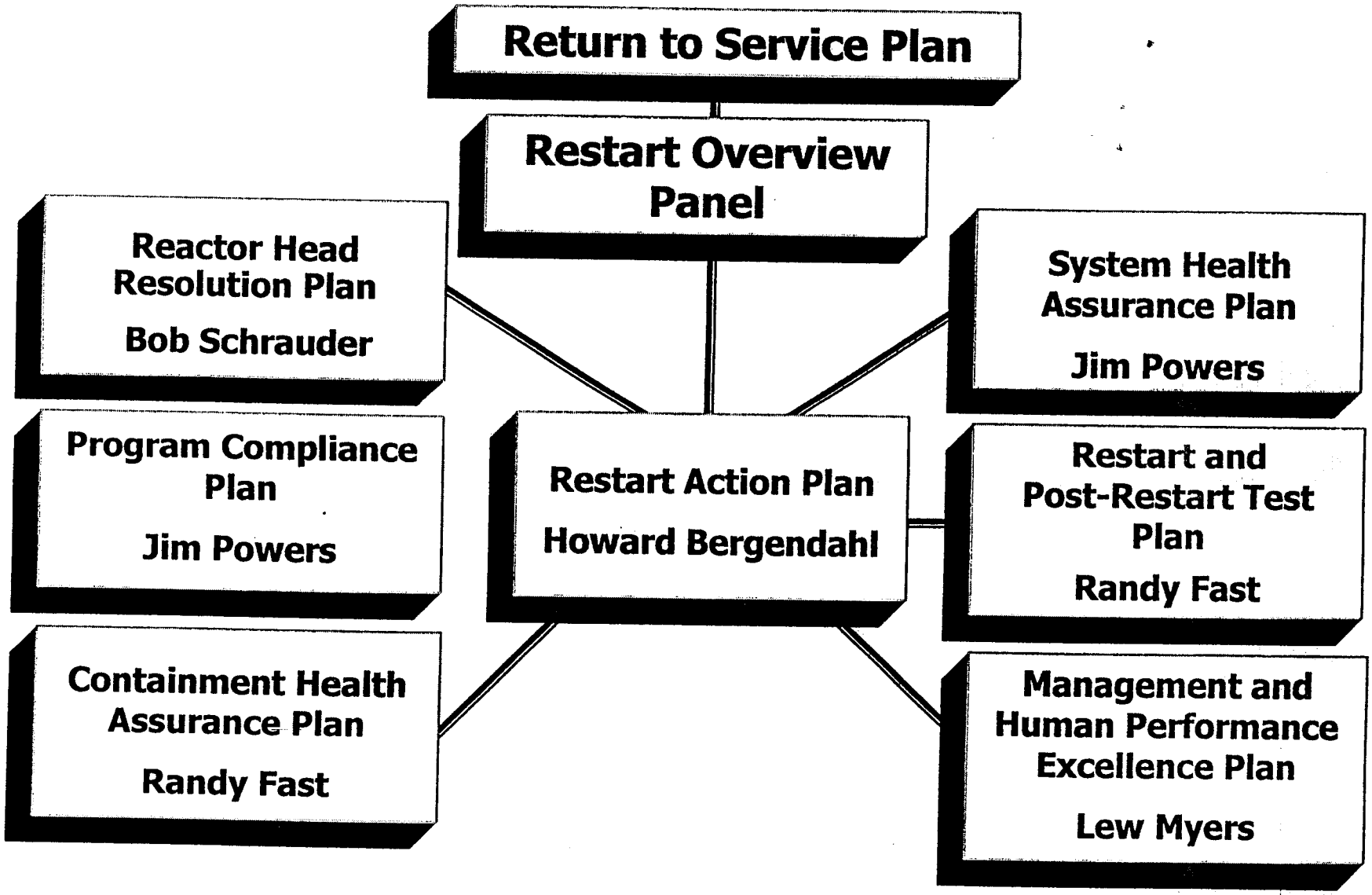
FENOC

Desired Outcomes

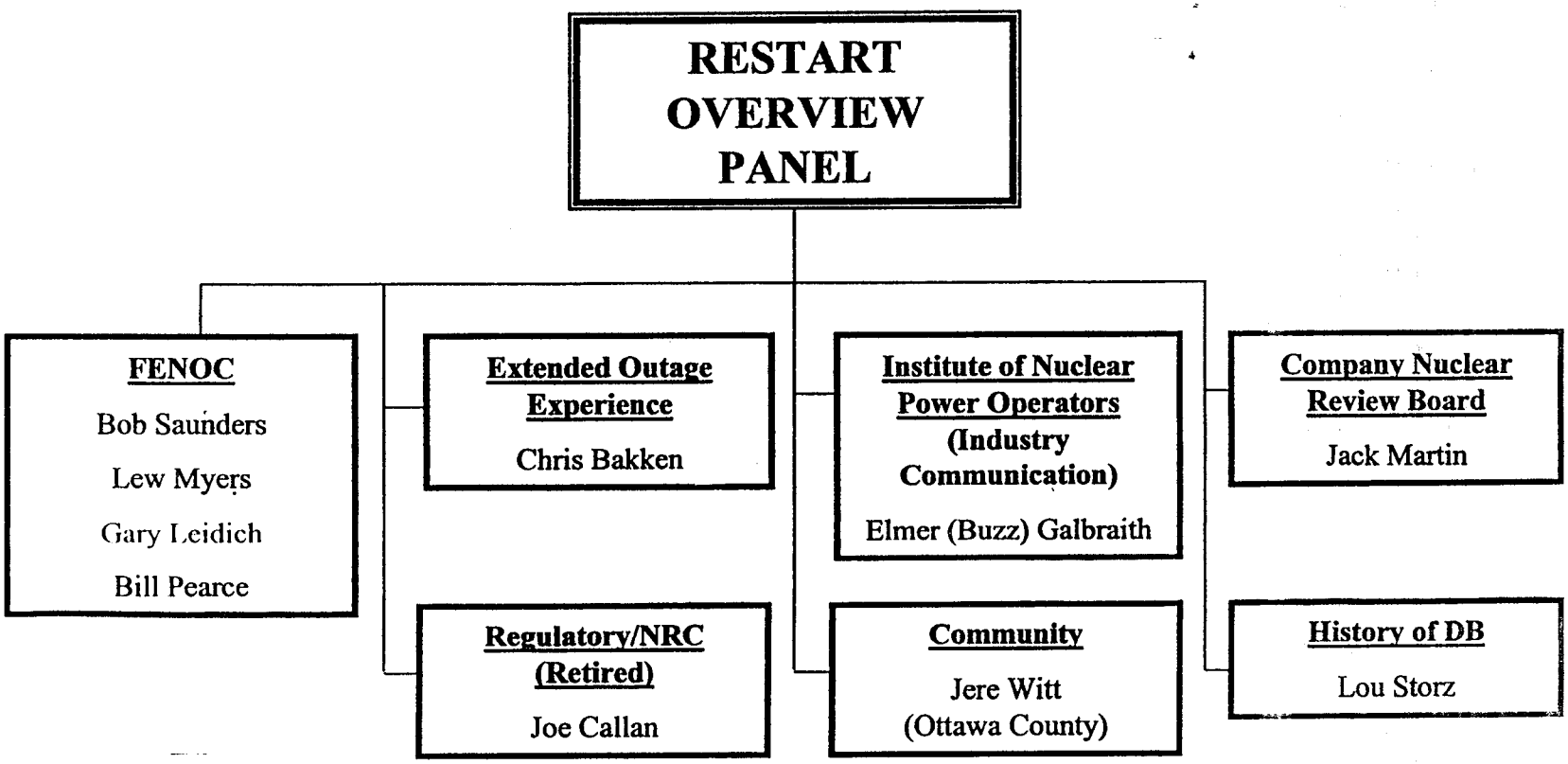
- Demonstrate Return to Service Plan Implementation toward safe, reliable and sustainable operation
- Provide status of several Building Blocks
- Demonstrate closure of actions from the previous meeting
- Introduce status of Management and Human Performance Excellence Plan

FENOC

Basic Building Blocks



Restart Overview Panel



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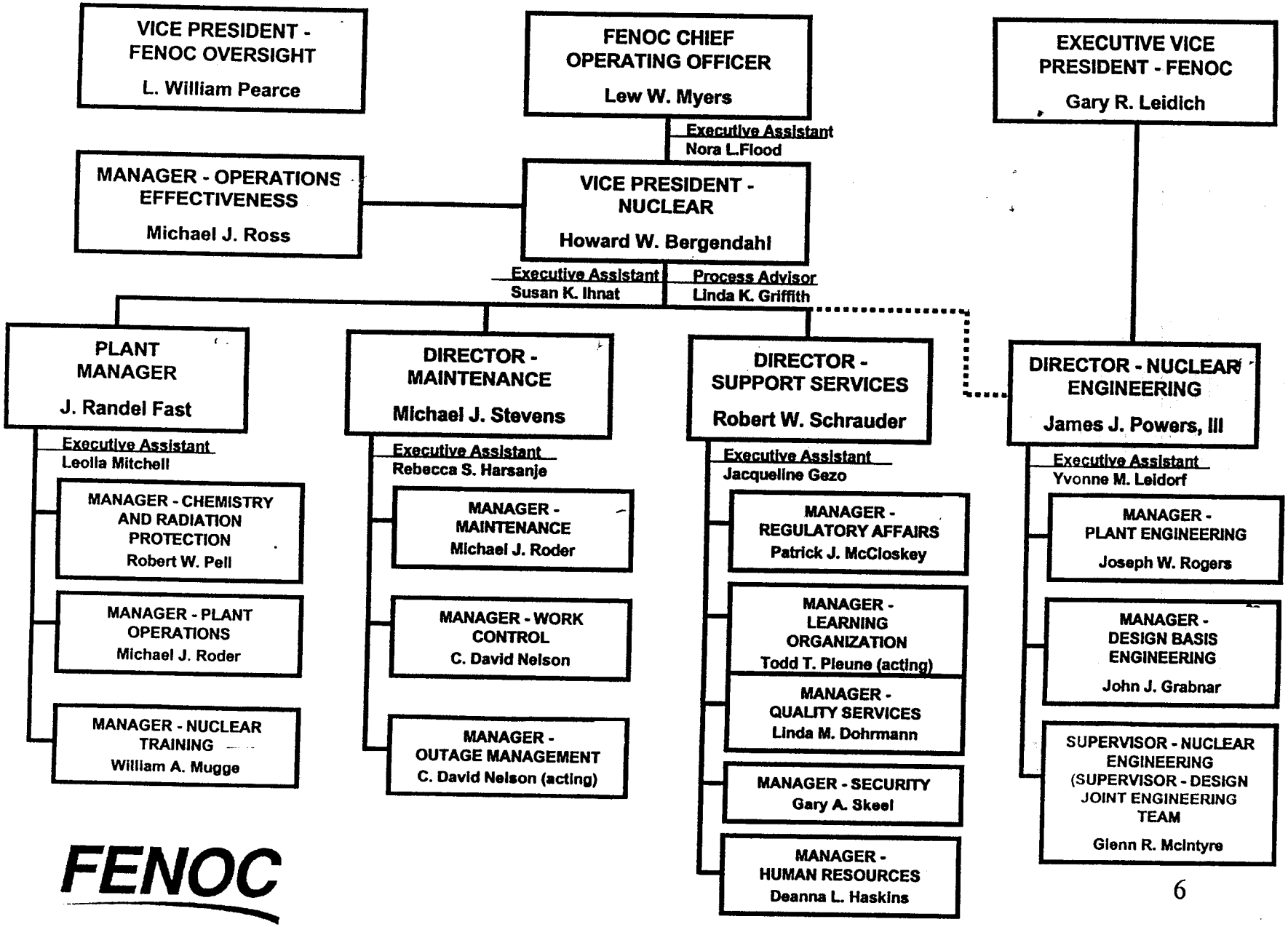
DAVIS-BESSE SITE ORGANIZATION



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Reactor Head Resolution Plan
Implementation Status

Bob Schrauder

Reactor Head Resolution Oversight

FENOC

Reactor Head Resolution Plan
Implementation Status

Progress

- Replacement Head activities support safe and reliable plant return to service during Fourth Quarter 2002.

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Reactor Head Resolution Plan
Implementation Status

Midland Activities

- Containment access opening complete
- Service Structure Inspection Access Modification complete
- Non-Destructive Examinations satisfactorily completed
- Final cleaning and preparation for shipping underway

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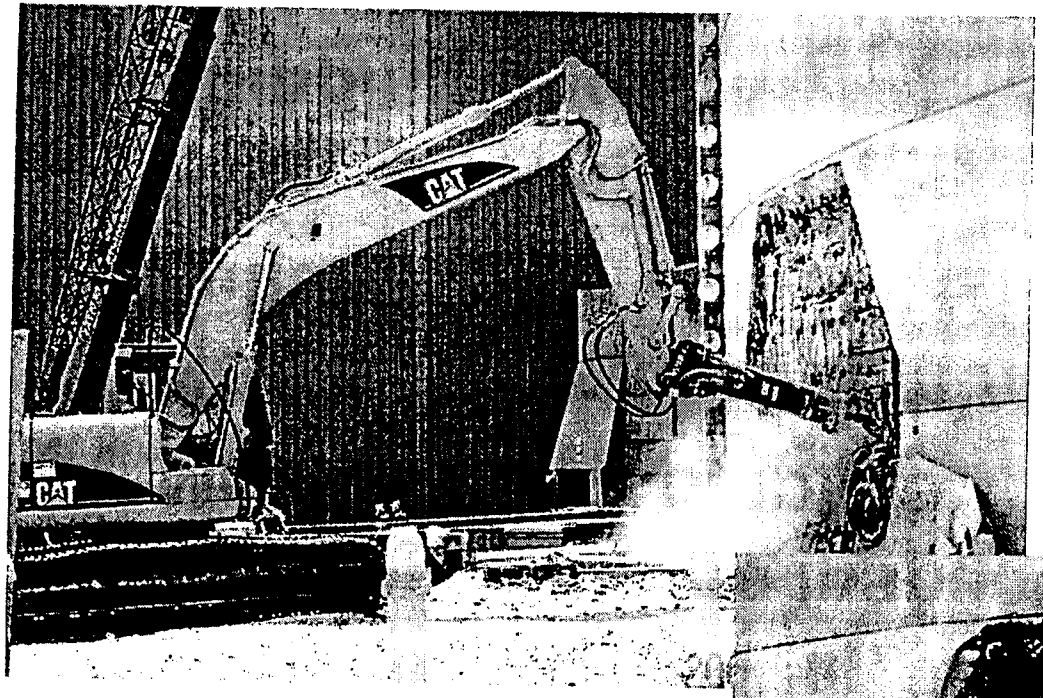
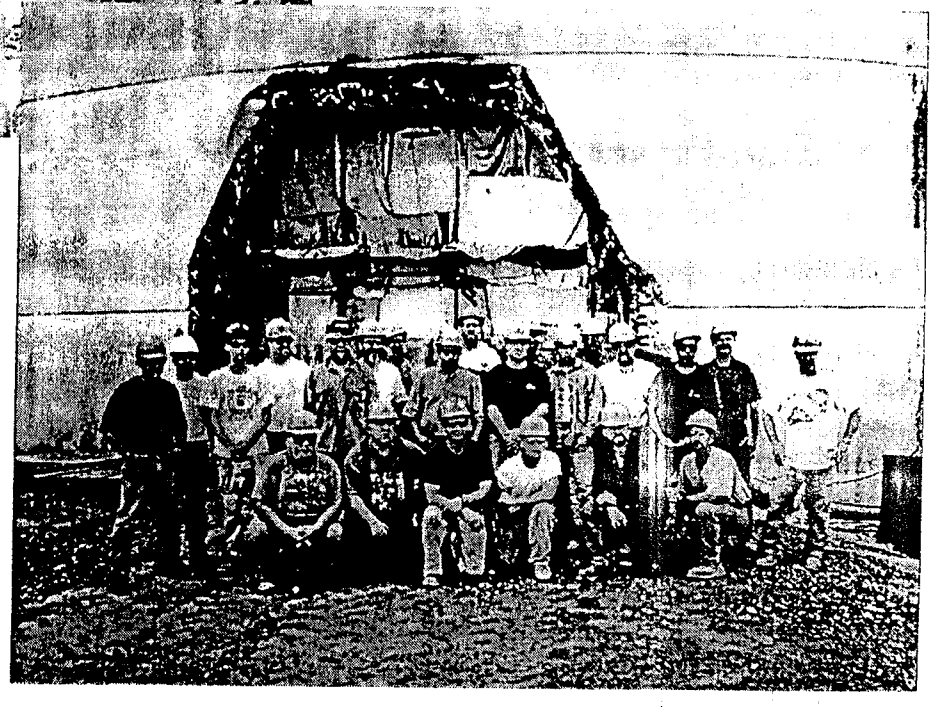
Cutting Containment Liner





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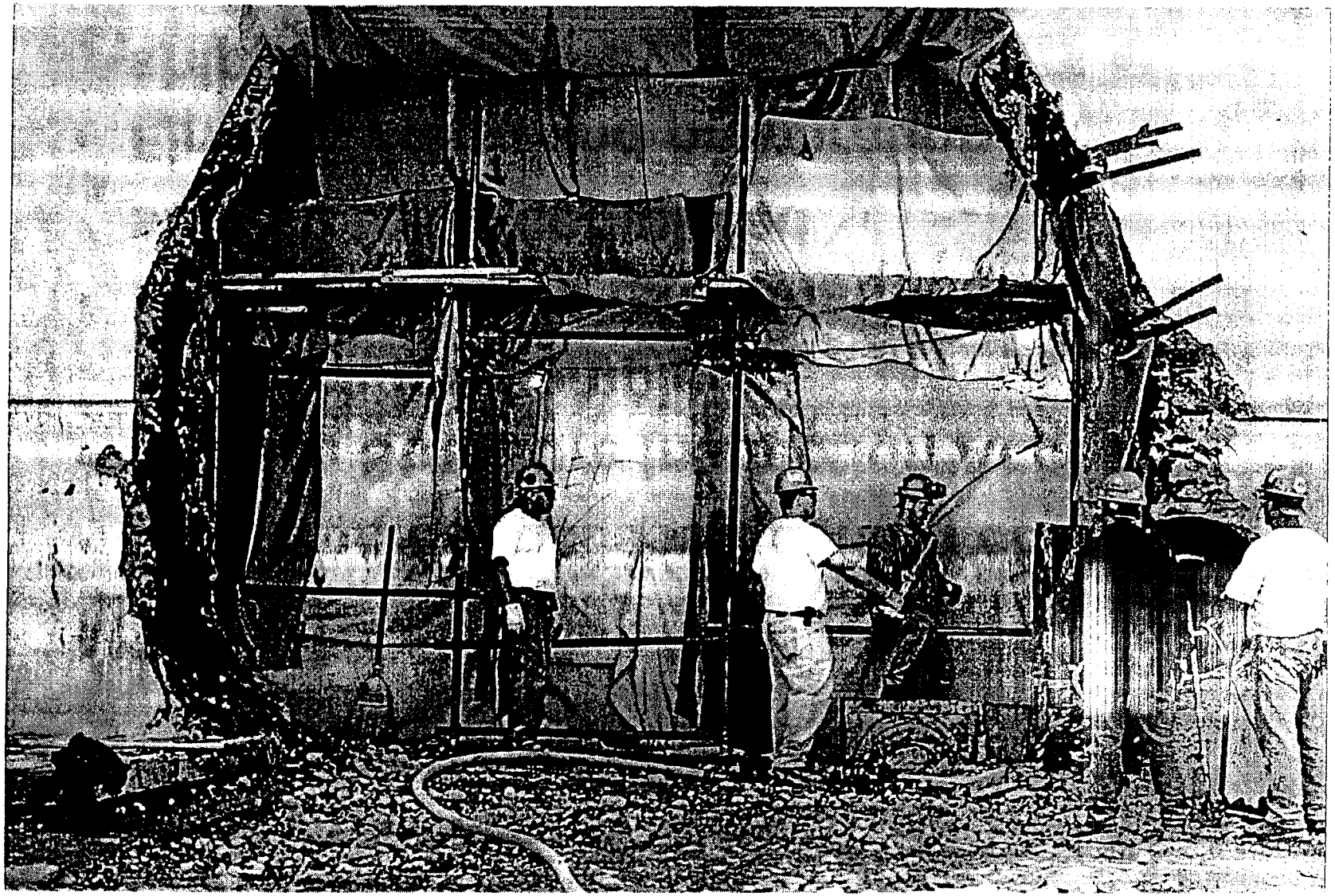
Containment Access Opening



FENOC

Reactor Head Resolution Plan
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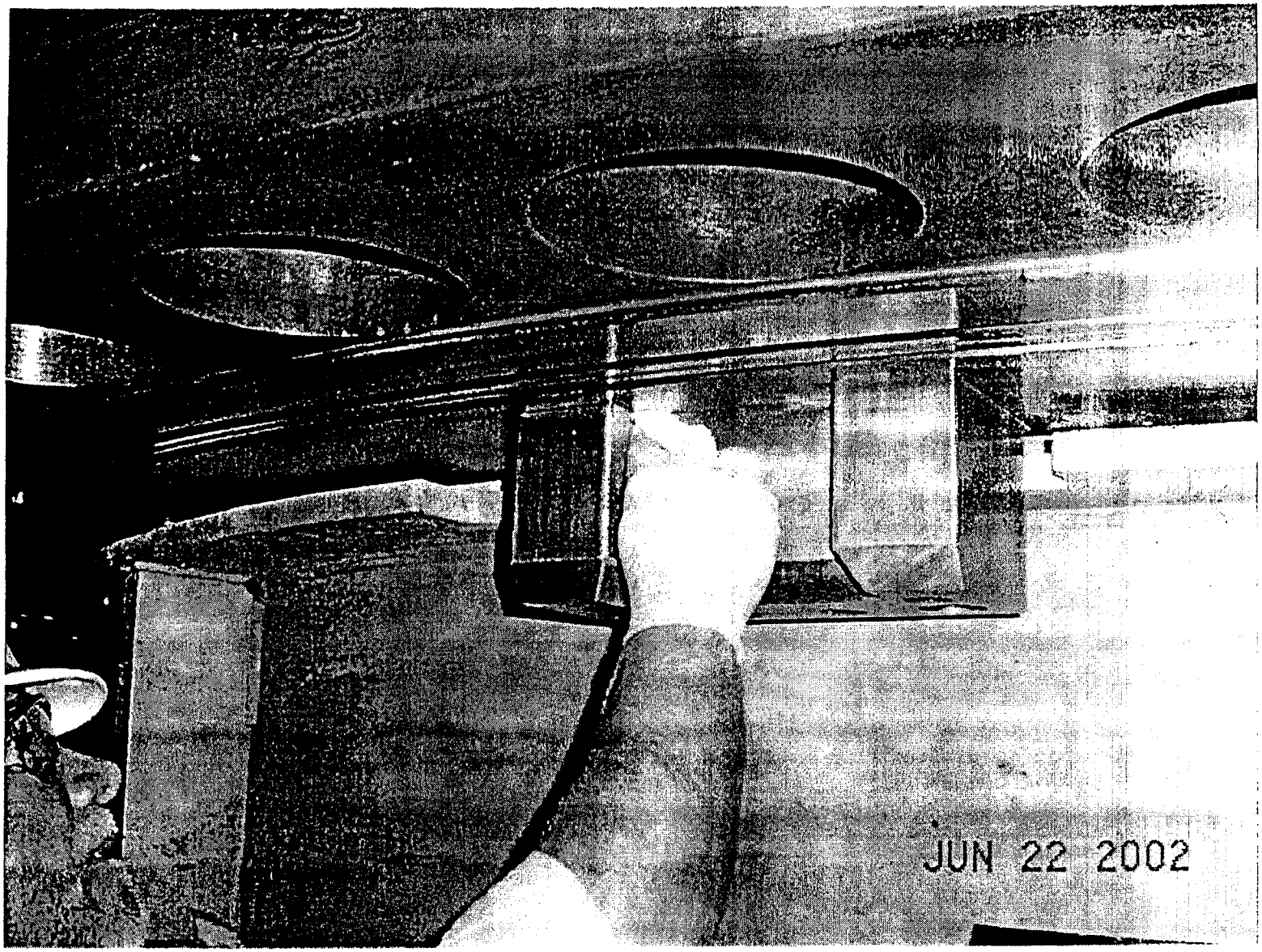

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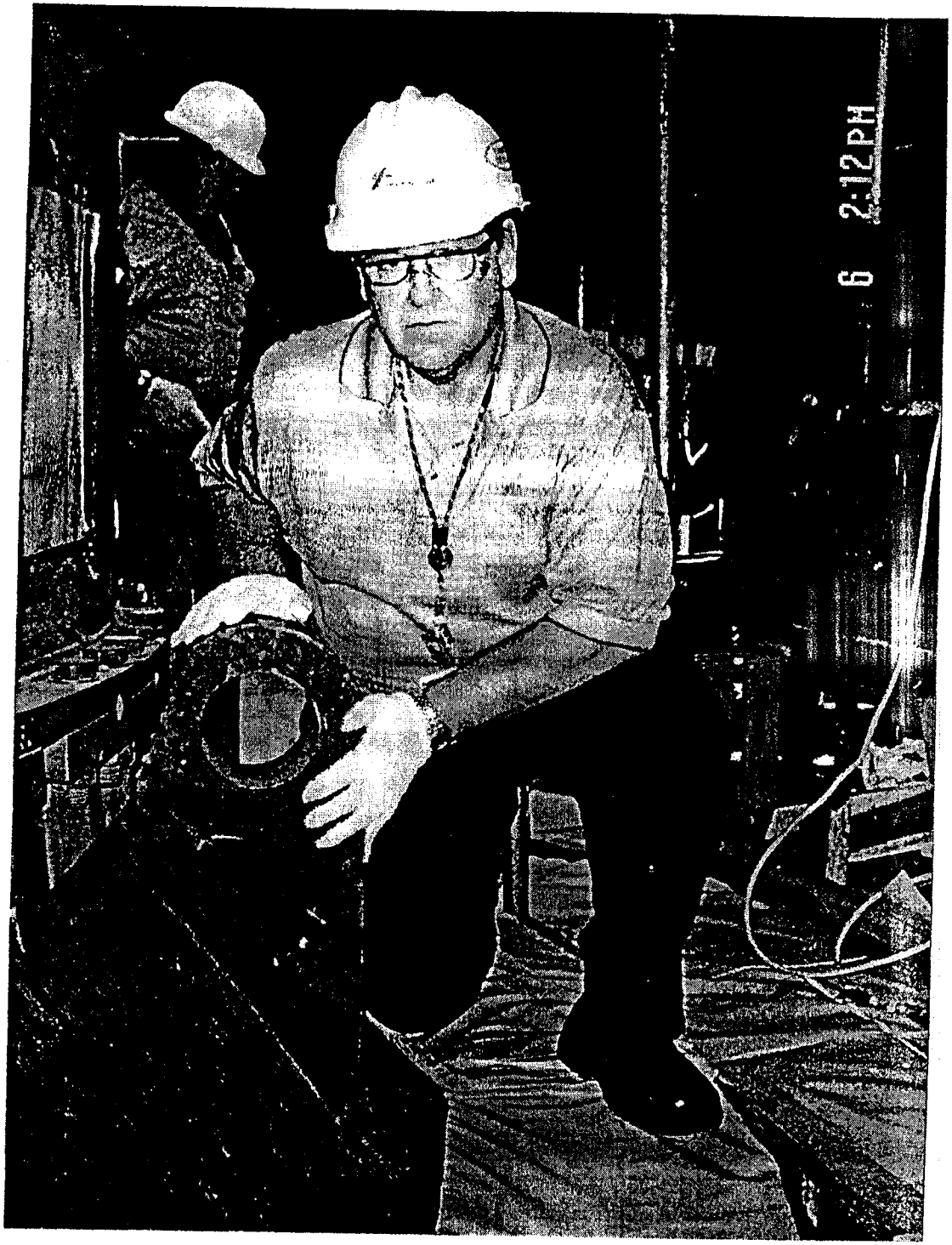

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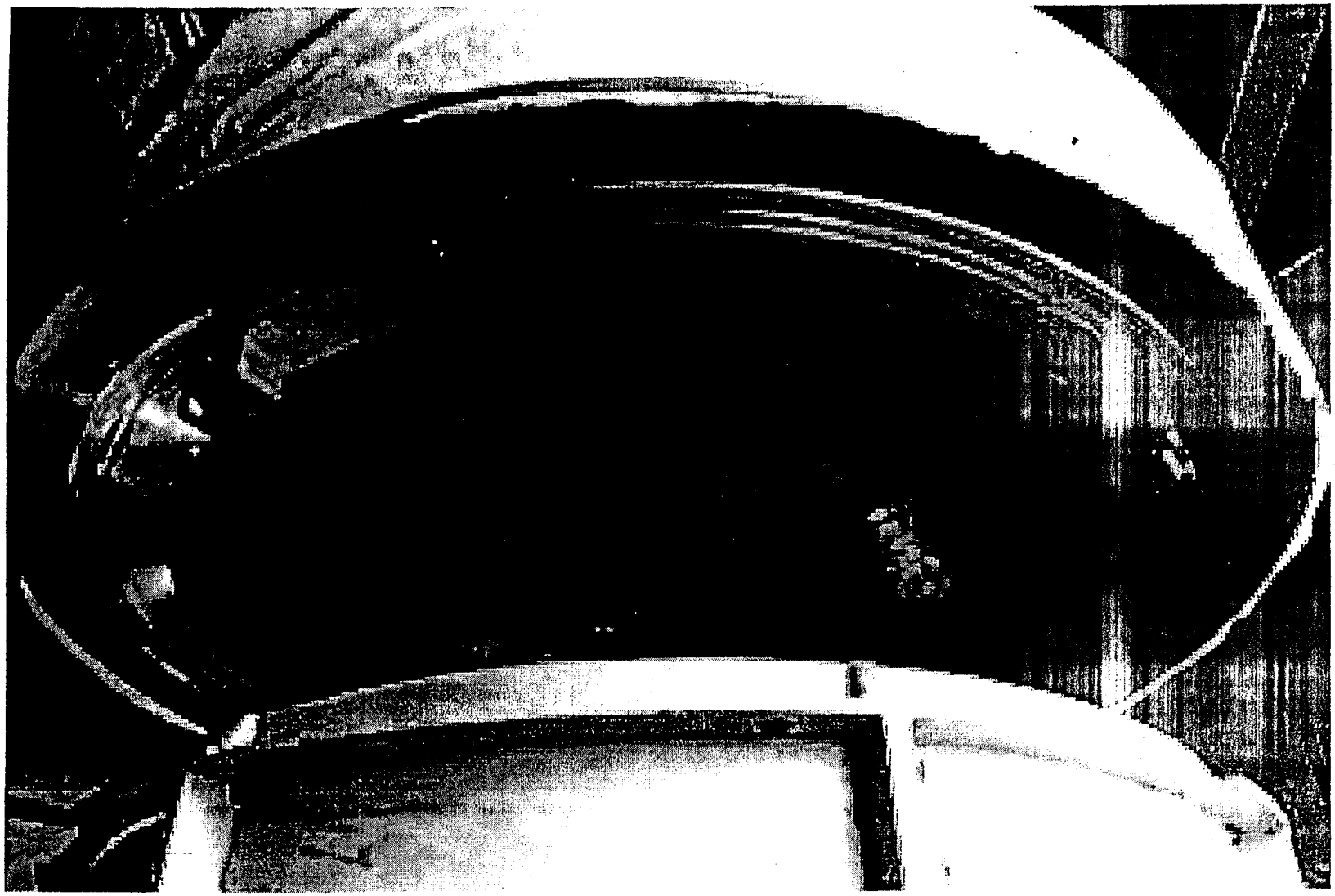

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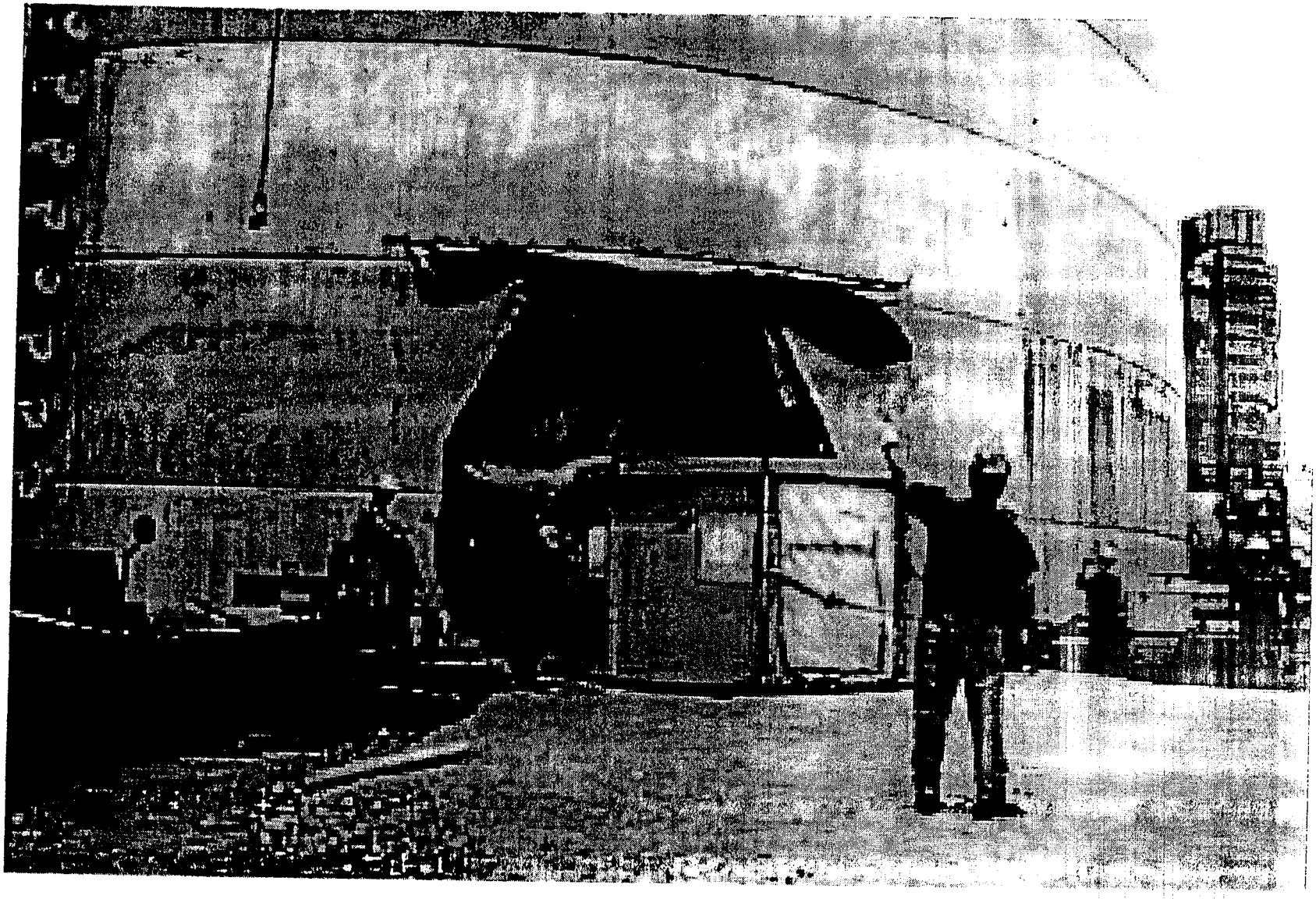

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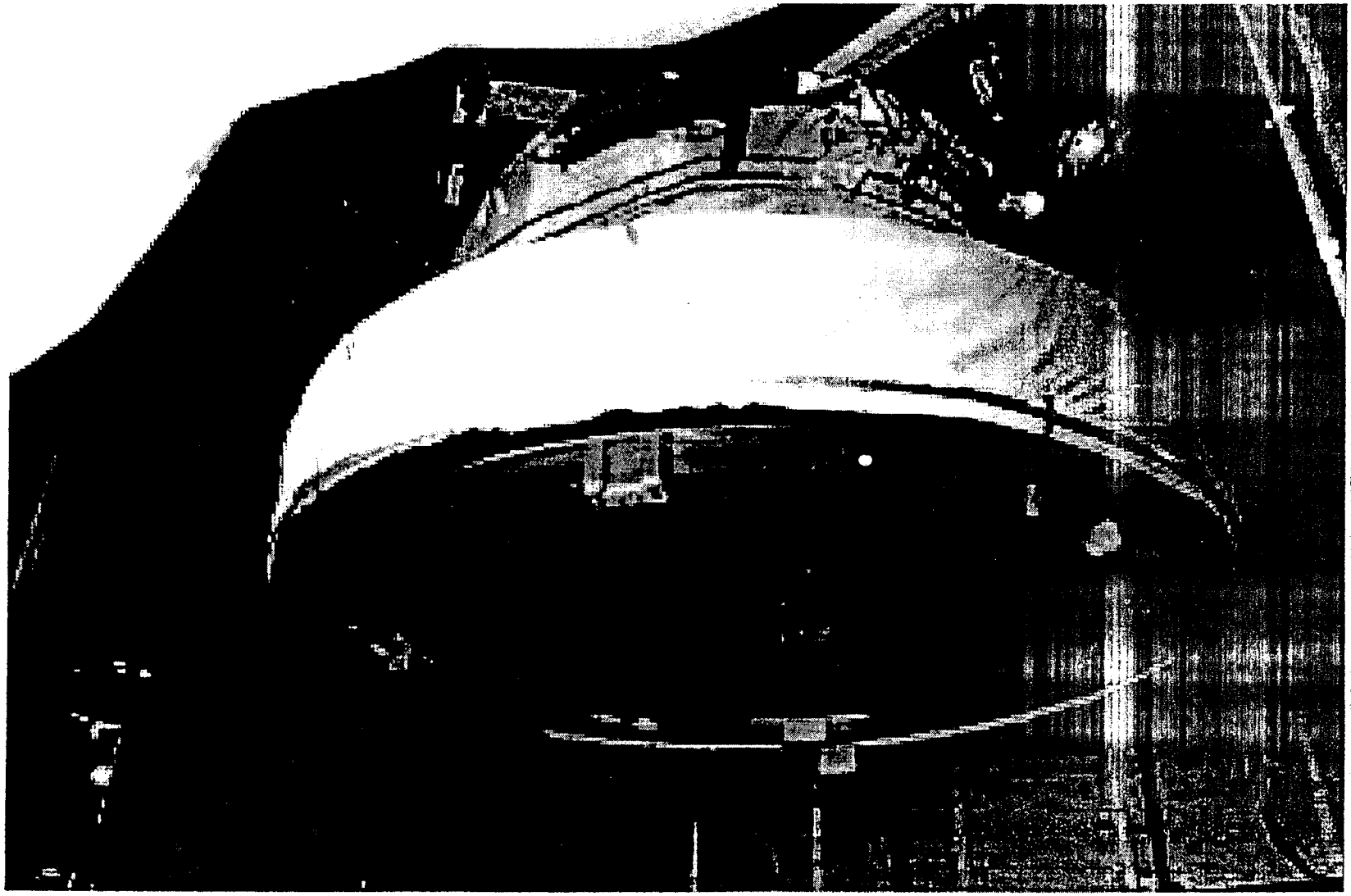

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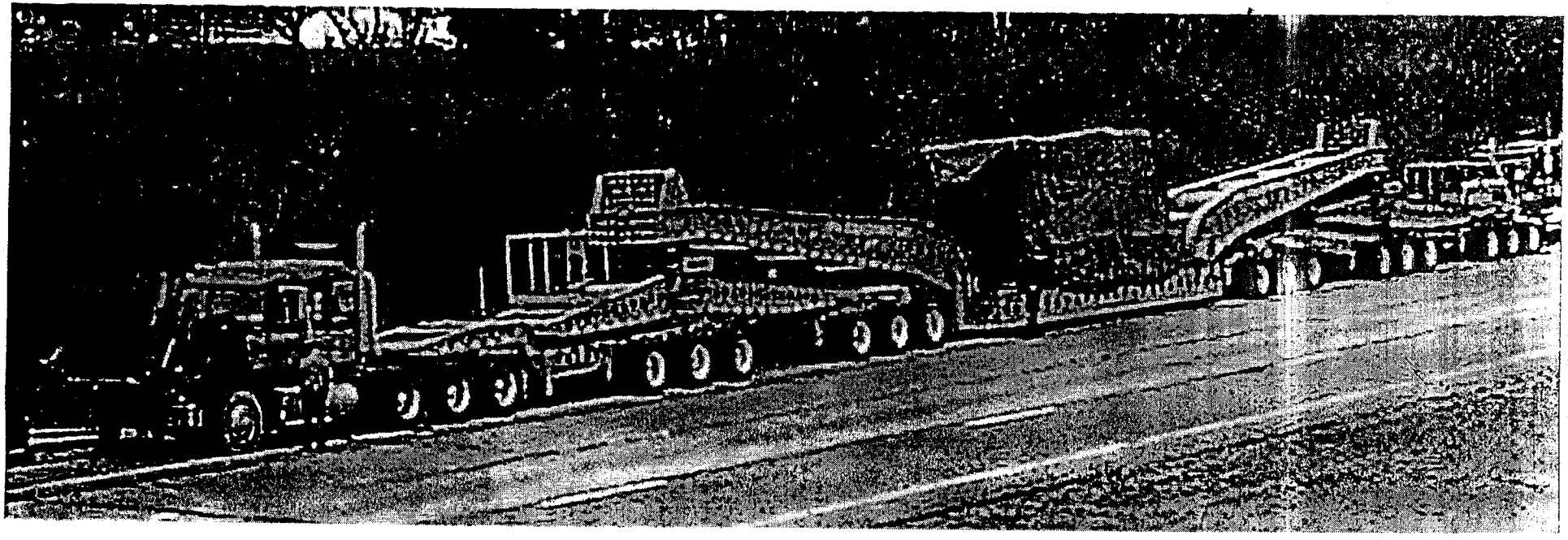

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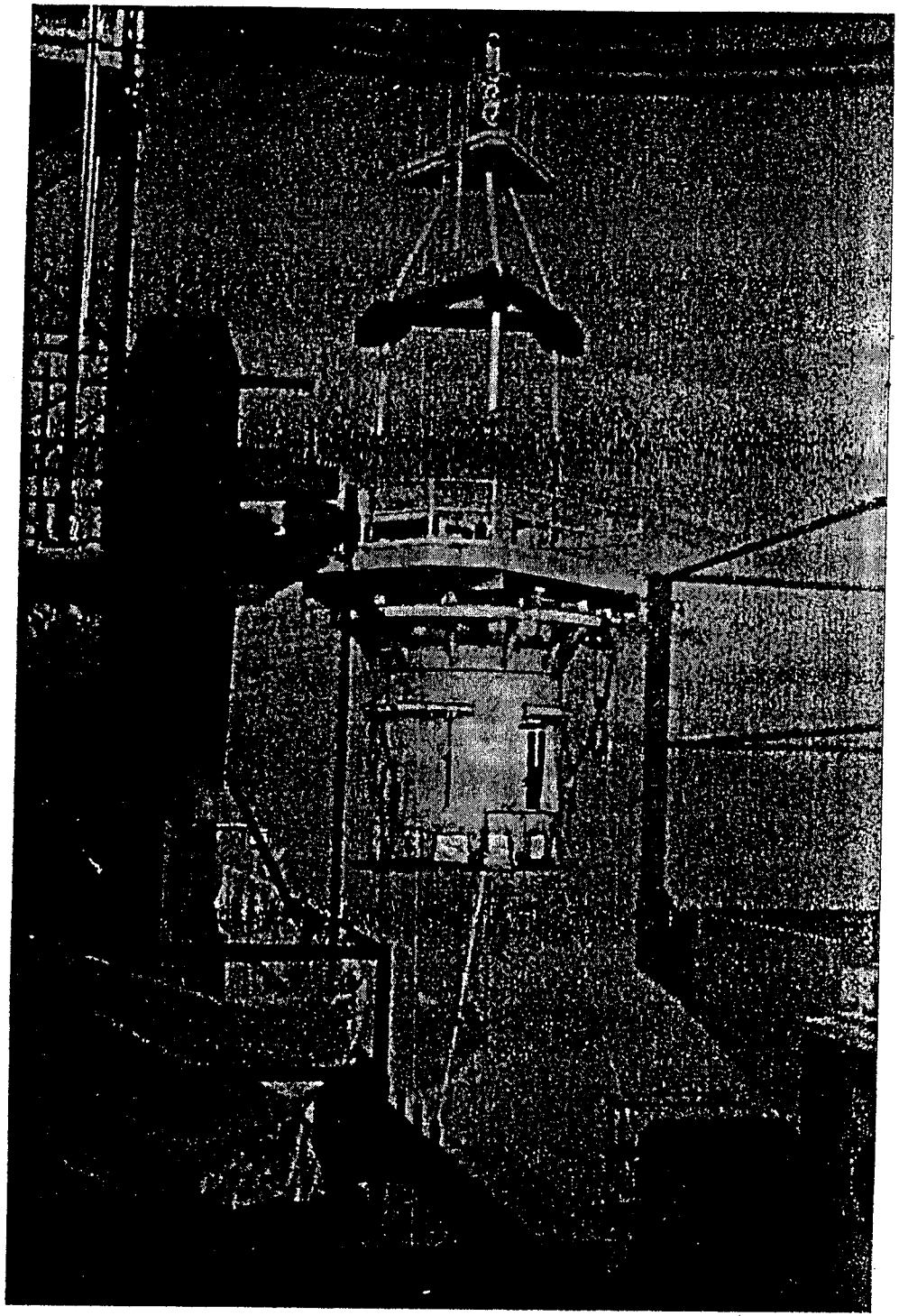
Reactor Head Resolution Plan
Implementation Status

Davis-Besse Activities

- RPV Head being prepared for removal
- Construction procedures submitted to FENOC for review and approval
- Engineering Packages nearing completion
- Containment Building opening preparation underway
- Containment restoration to include Containment Integrated Leak Rate Test to confirm Containment integrity

FENOC



FENOC

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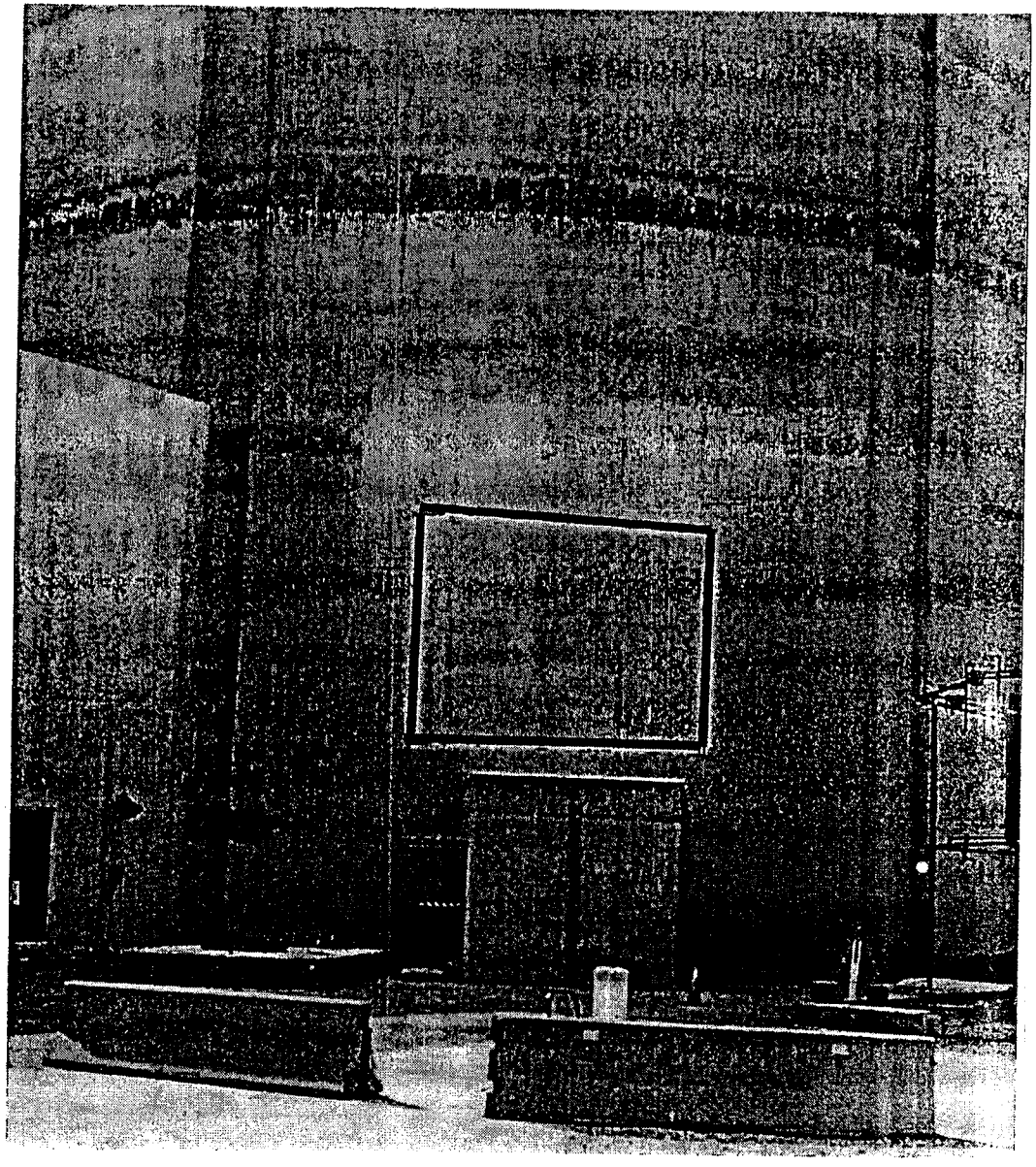

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Containment Health Plan
Implementation Status

Randy Fast
Plant Manager

Jim Powers
Director - Engineering

FENOC

Containment Health Plan
Implementation Status

- Plan scope increased to encompass overall Containment Health
  - Containment Vessel Evaluation
  - Environmental Qualification Equipment Evaluation
  - Containment Emergency Sump Evaluation
  - Decay Heat Valve Pit
  - Containment Air Coolers
- System Health Plan revised to include systems outside Containment that contain boric acid

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Containment Health Plan
Implementation Status

- Revised Field Inspector Training Program
- Procedures in place for inspections
- Validation of inspections in progress
- Independent inspections with qualified personnel

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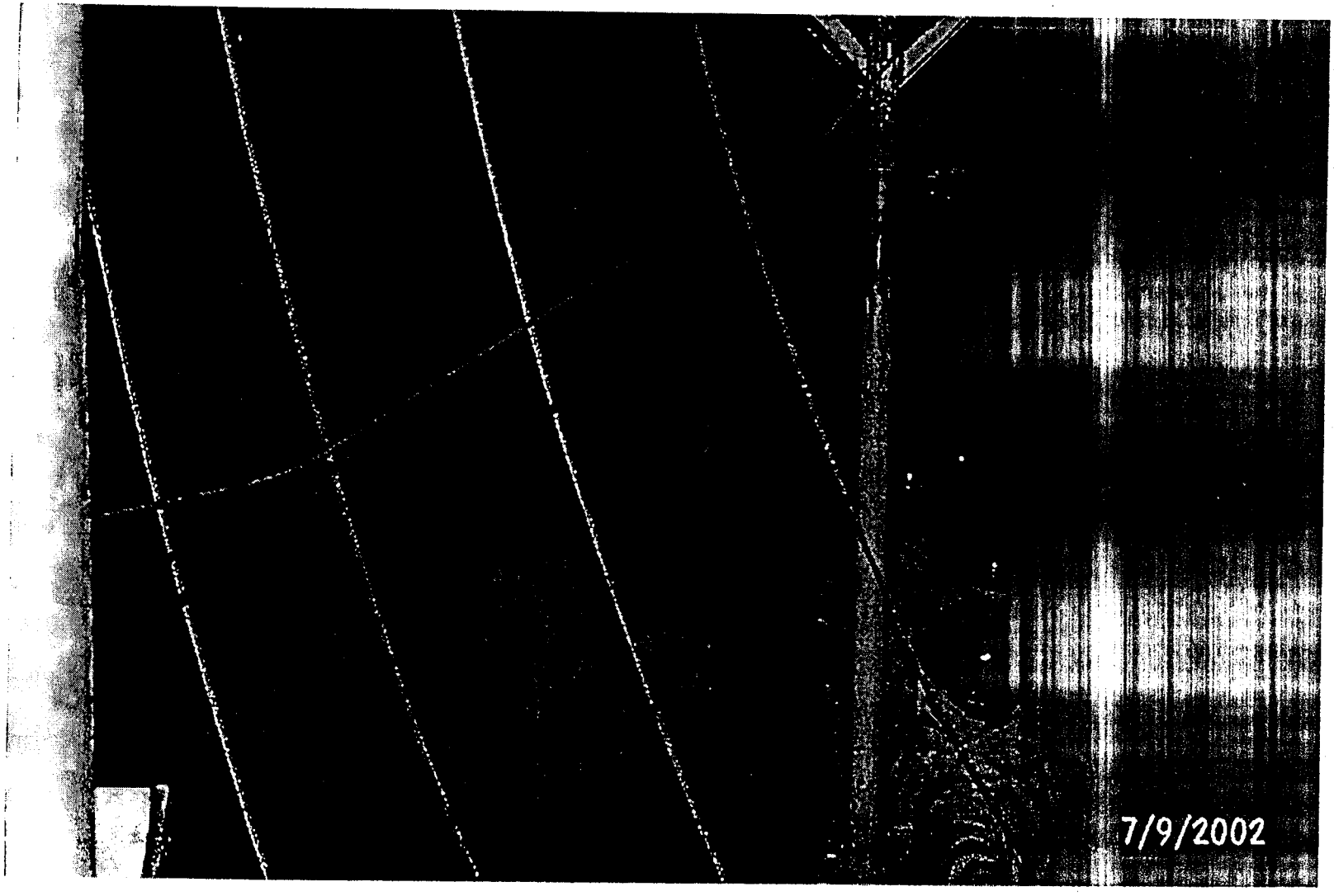
Qualifying Painters



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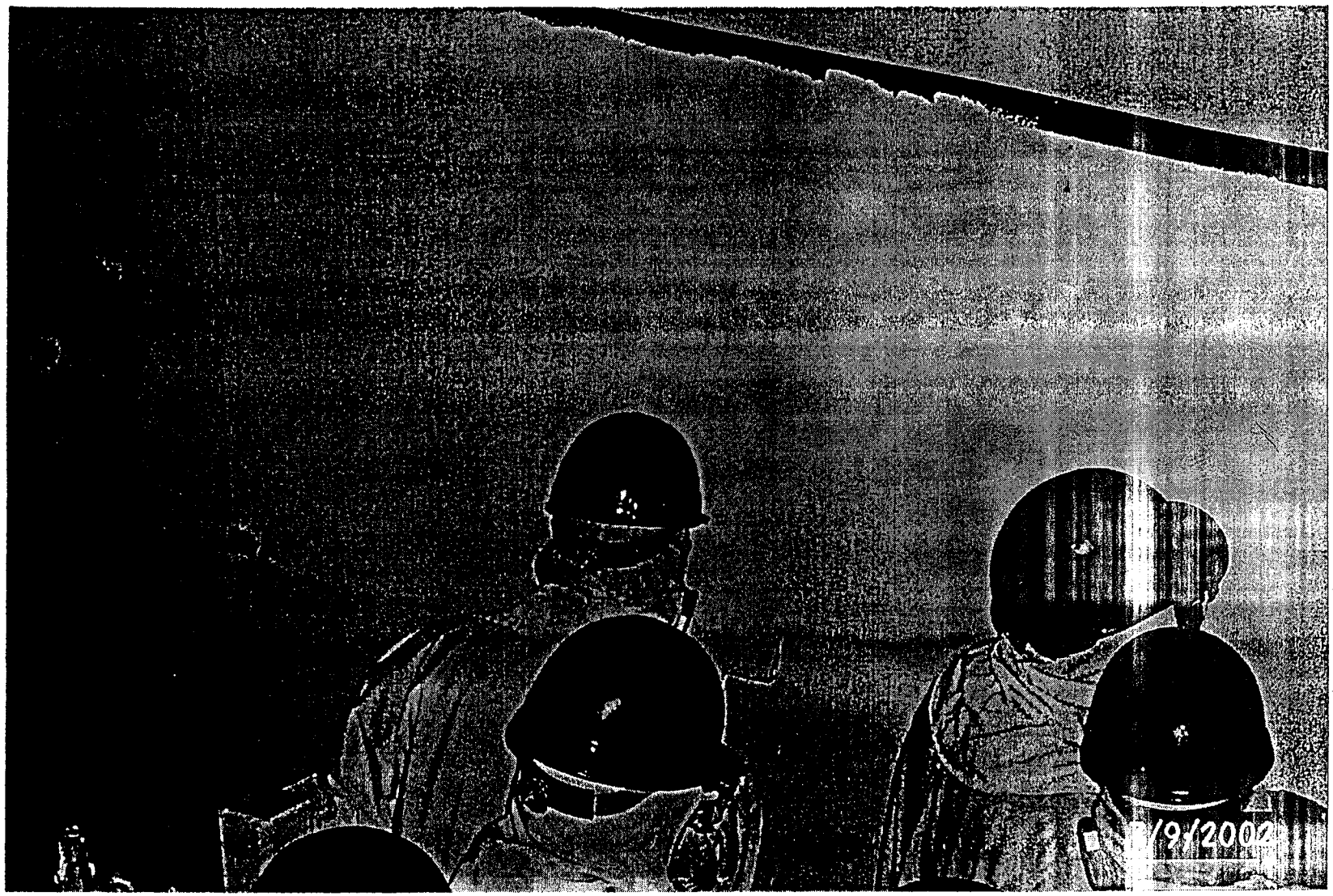
Qualifying Painters



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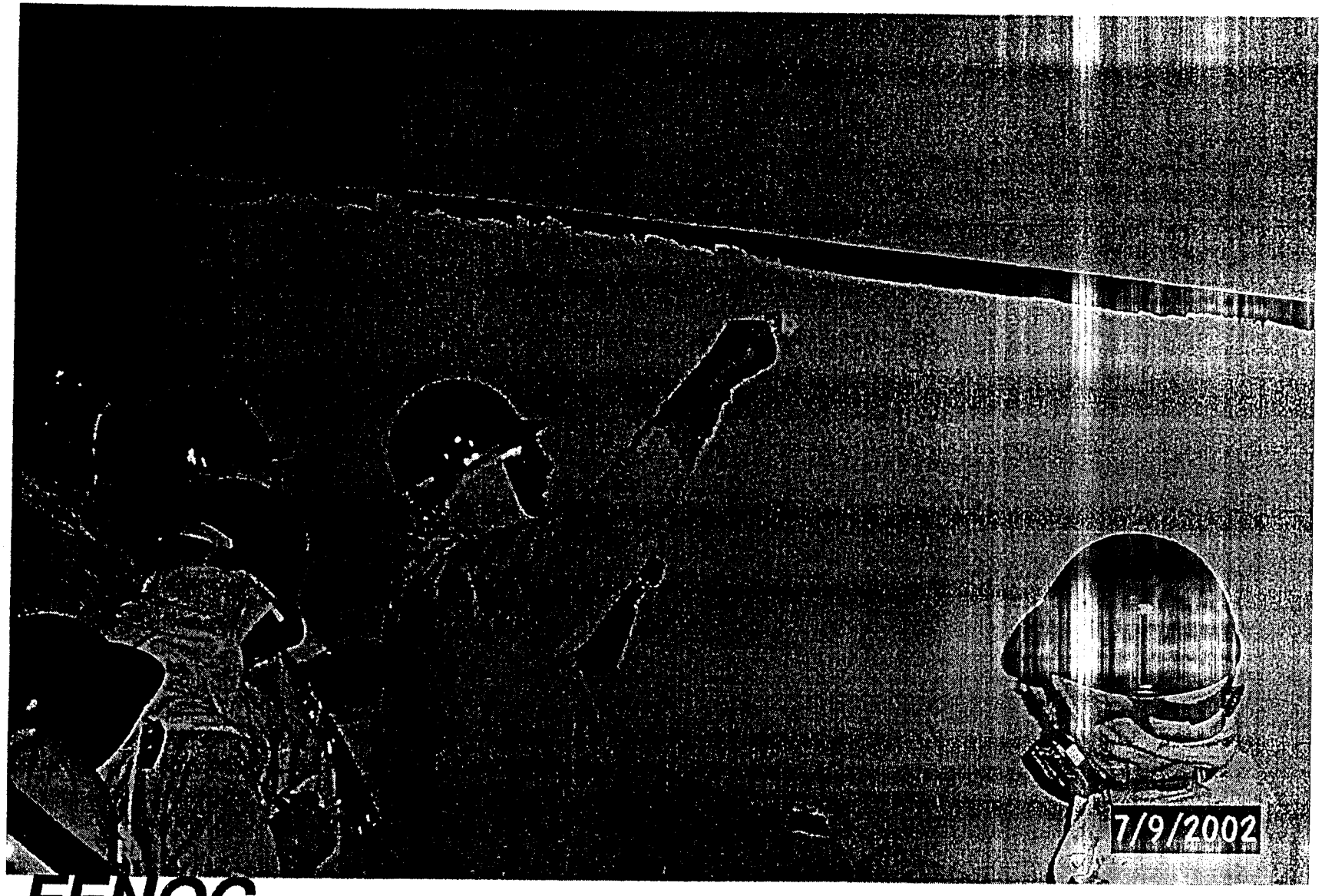
Qualifying Painters



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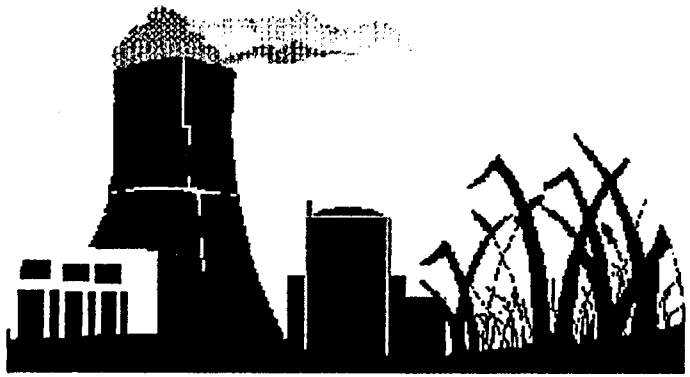
System Health Assurance Plan
Implementation Status



Howard Bergendahl

Vice President - Nuclear

FENOC

System Health Assurance Plan
Implementation Status

Operational Readiness Reviews

- Complete

System Readiness Reviews

- Risk Significant Maintenance Rule Systems
- Focus on material condition
- Include system walkdowns

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System Health Assurance Plan
Implementation Status

Latent Issues Reviews

- Detailed look at system design and include detailed system walkdowns
  - Reactor Coolant System
  - Auxiliary Feedwater System
  - Component Cooling Water System
  - Emergency Diesel Generators
  - Service Water System

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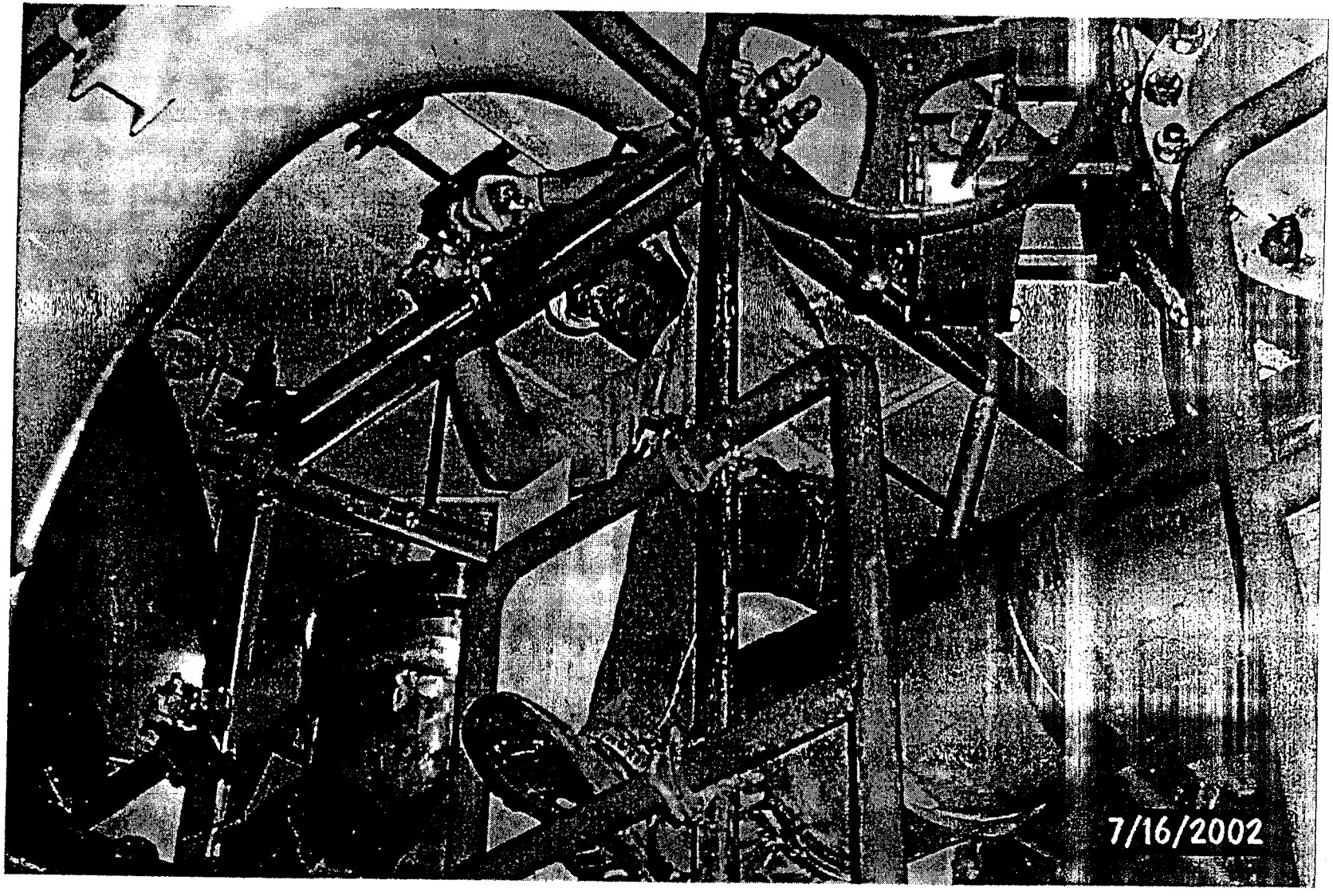
Decay Heat Pump Work



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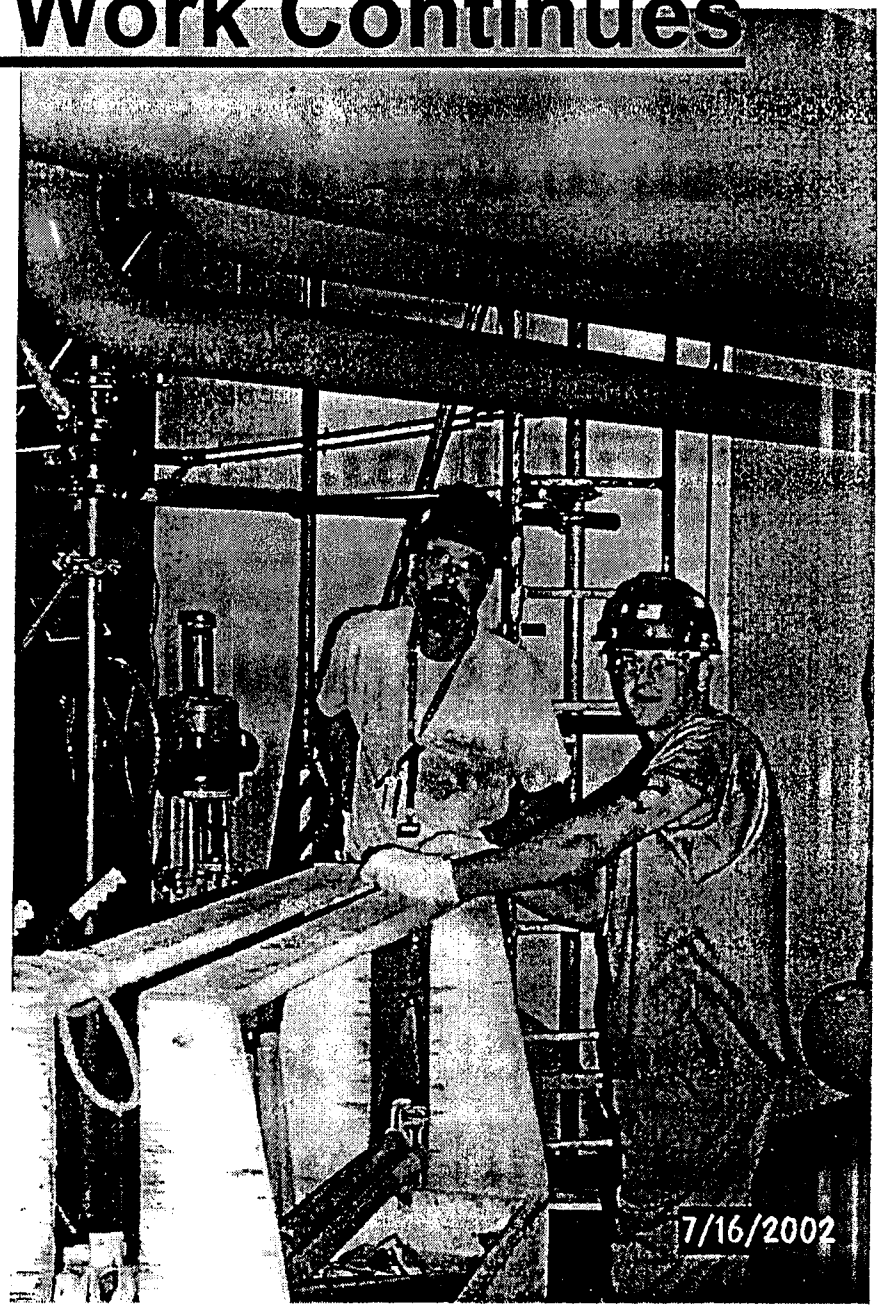
Scaffold Work Continues



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Program Compliance Plan
Implementation Status

Phase 1 - Program Readiness

- Baseline assessment of plant programs
- Results presented to the Program Review Board

Phase 2 - Detailed Program Reviews

- Expectations have been established for In-Depth systematic review of programs related to degradation of head

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Program Compliance Plan
Implementation Status

Phase 2 - Reviews Include:

- Pilot Review: Probabilistic Safety Assessment Program
- Boric Acid Corrosion Control Program
- Inservice Inspection Program
- Plant Modification Program
- Corrective Action Program
- Reactor Coolant System Unidentified Leakage Program
- Operating Experience

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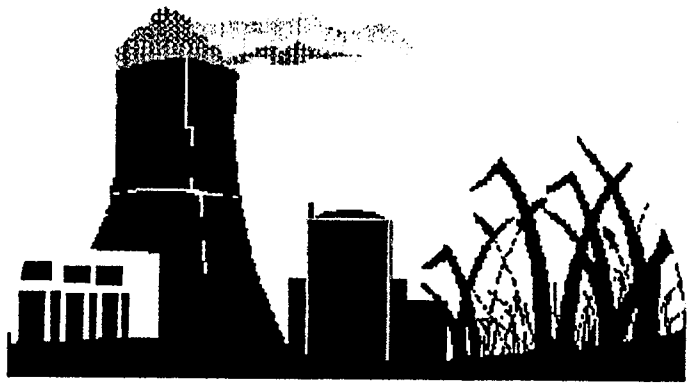
Management and Human Performance Excellence
Plan Introduction



Lew Myers

Chief Operating Officer

FENOC

Management Root Cause
Introduction

Conclusion:

- Management ineffectively implemented processes, and thus failed to detect and address plant problems as opportunities arose

Four Key Focus Areas Identified:

- Ownership
- Oversight
- Standards
- Decision-making

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Management Root Cause
Introduction

Initial Assessments:

- Standards have existed for many years that lacked rigor in problem solving
- Strong management / leadership tends to improve performance, teamwork and ownership
- Lack of management oversight has resulted in lax rigor in process implementation
- Questioning attitude is not evident in decision making

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Management Root Cause

Approach:

- Baseline from Technical Root Cause
- Outside Experts Utilized
- Dedicated Investigation Team

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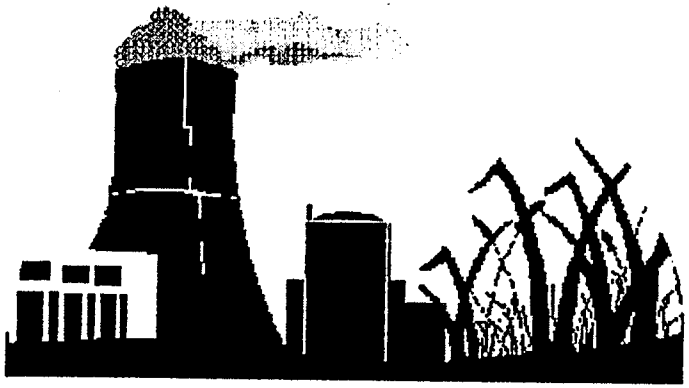
Management Root Cause



Steve Loehlein

Root Cause Team Leader

FENOC

Management Root Cause

Purpose:

- Understand why, over a period of years, Davis-Besse personnel failed to identify corrosion of the Reactor Pressure Vessel Head base metal.

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Management Root Cause

Team Composition:

- Technical Root Cause Leader
- Root Cause qualified FENOC employees
- FENOC Oversight Support
- Process Expertise -- Conger & Elsea
- Davis-Besse Management Personnel

Overview:

- INPO Organizational Effectiveness Expert

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Root Cause Team

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Management Root Cause

Approach and Status:

- Scope Development
  - Technical Root Cause results
  - Four Focused areas for review:
    - RPV Head
    - Pressurizer Spray Valve (RC-2)
    - Containment Air Coolers
    - Radiation Monitor Filters

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Management Root Cause

In-Depth Evaluations:

- Event and Causal Factors chart and Barrier Analysis techniques are being employed
- Management Oversight and Risk Tree (MORT) technique in process
- MORT Analysis Sections
  - Technical Information Systems
  - Corrective Action Program
  - Hazard Analysis Process
  - Task Performance Errors
  - Management Support / Oversight
- Corrective Actions will be recommended based on conclusions of data analysis

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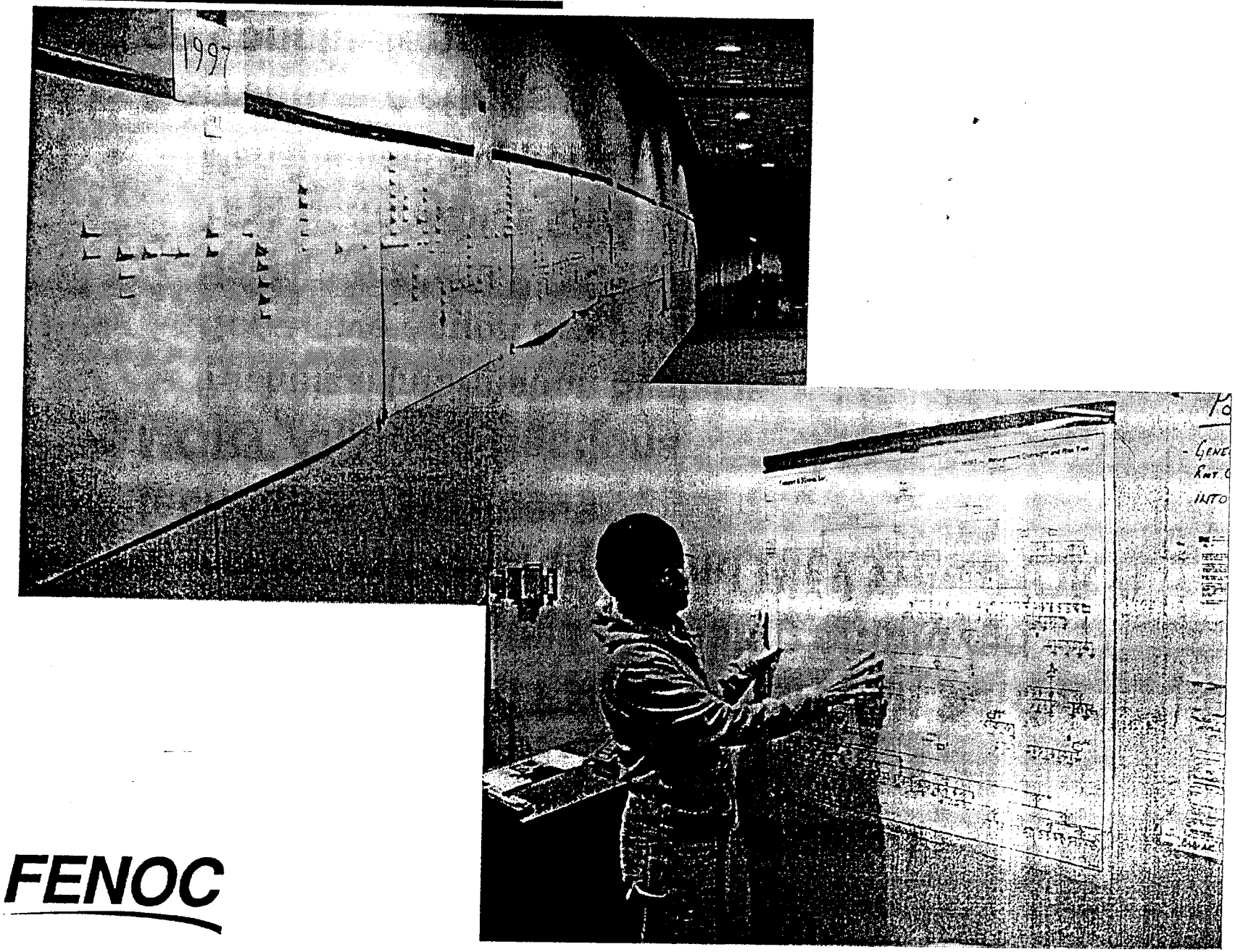
MORT Analysis



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Management Root Cause

Preliminary Insights:

- Standards have existed for many years that lacked rigor in problem solving
- Strong management / leadership tends to improve performance, teamwork and ownership
- Lack of management oversight has resulted in lax rigor in process implementation
- Questioning attitude is not evident in decision making

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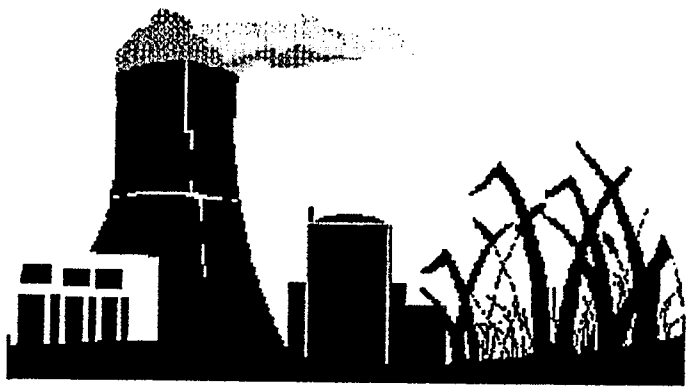
Closing Remarks



Lew Myers
FENOC Chief Operating Officer

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Closing Remarks

- Demonstrated movement of our Building Blocks from Planning, Discovery, and into Implementation
- We have taken strong actions to incorporate comments from our Restart Oversight Panel and the NRC
- We are taking management actions that are substantial and demonstrative

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Closing Remarks

Management Action:

- New positions of Chief Operating Officer, Executive Vice President of Engineering, and Vice President of Nuclear Oversight to ensure good operation and performance standards
- New Senior Management Team and a strong management team is now present with proven leadership

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Closing Remarks

Management Action:

- We are providing a case study with all of our employees to set an expectation that a change in ownership and standards are required
- We are re-baselining our standards and clearly reinforcing these standards in each department
  - New Engineering Standards of Excellence
  - New Engineering Assessment Board
  - Plant Manager now chairing our Corrective Action Review Board
  - New Operations leadership to ensure a plant operational focus

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Closing Remarks

Management Action:

- Building Teamwork between managers and supervisors/line workers

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Conclusions

We continue to be committed to a comprehensive approach to ensure Davis-Besse is ready for safe and reliable operation and sustainable performance.

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