



August 1, 1997

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

Subject: Braidwood Units 1 and 2 (NRC Docket Nos. 50-456/457)  
Byron Units 1 and 2 (NRC Docket Nos. 50-454/455)  
Dresden Units 2 and 3 (NRC Docket Nos. 50-237/249)  
LaSalle Units 1 and 2 (NRC Docket Nos. 50-373/374)  
Quad Cities Units 1 and 2 (NRC Docket Nos. 50-254/265)  
Zion Units 1 and 2 (NRC Docket Nos. 50-295/304)

Update on Commonwealth Edison's Nuclear Operations Division  
Improvement Initiatives

References: (1) Letter from J.J. O'Connor, dated March 28, 1997; Providing  
ComEd's Response to "Request for Information Pursuant to  
10 CFR 50.54(f) Regarding Safety Performance at  
Commonwealth Edison Company Nuclear Stations."

Dear Mr. Callan:

I and the Commonwealth Edison Senior Management team look forward to  
meeting with the Nuclear Regulatory Commission staff on August 5, 1997.  
This will be the second meeting regarding the ComEd Nuclear Operations  
Division (NOD) Performance Initiatives. These initiatives were a significant  
element of the ComEd response to the NRC's Request for Information  
pursuant to 10 CFR 50.54(f) (Reference 1).

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U.S. Nuclear Regulatory Commission  
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Attached please find a document that provides an update on the status of the on-going NOD Performance Initiatives since we last met on June 3, 1997. We will be prepared to discuss all of the attached information as well as the status of the ComEd Performance Indicator Program at our meeting on August 5, 1997.

However, our prepared remarks will be focused on selected information from the attachment.

Sincerely,



Harold W. Keiser  
Vice President  
Chief Nuclear Operating Officer

cc: H. Thompson, Deputy Director for NRR  
A. Beach, Regional Administrator - RII  
W. Kropp - RIII  
R. Capra, Project Directorate - NRR  
R. Assa, Braidwood Project Manager - NRR  
G. Dick, Byron Project Manager - NRR  
J. Stang, Dresden Project Manager - NRR  
D Skay, LaSalle County Project Manager - NRR  
R. Pulsifer, Quad Cities Project Manager - NRR  
C. Shiraki, Zion Project Manager - NRR  
Braidwood, Senior Resident Inspector  
Byron, Senior Resident Inspector  
Dresden, Senior Resident Inspector  
LaSalle, Senior Resident Inspector  
Quad Cities, Senior Resident Inspector  
Zion, Senior Resident Inspector  
Office of Nuclear Facility Safety - IDNS  
DCD - Licensing

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● *Update on ComEd's  
Nuclear Operations Division  
Improvement Initiatives*

● *August 1, 1997*

## *NRC 50.54(f) Letter*

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- - Describe actions taken and to be taken to provide confidence in ComEd's ability to operate six nuclear plants while sustaining improvement at each site
  - Develop Performance Indicators
- - Determine Actions to be taken if criteria not met

## *NRC 50.54(f) Meetings*

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- April 25, 1997 ComEd Briefing of NRC Commissioners
- June 3, 1997 Meeting With Region III and NRR
- August 5, 1997 Meeting With Region III and NRR
- October 1997\* Meeting With Region III and NRR
- November 4, 1997 ComEd Briefing of NRC Commissioners
- \*Specific Date to be Determined

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# Nuclear Operations Division Focus Areas - Update

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# *Focus Areas From ComEd Response to NRC 10CFR50.54(f) Letter*

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- - Focus on Safe Operations
  - Leverage Nuclear Operations Division's Size
  - Provide Adequate Financial and Human Resources
- - Oversight, Assessment and Monitoring

# *Focus on Safe Operations*

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- Operations Peer Group
  - Common Operations Standards Issued on June 17, 1997
    - » Training Currently In-Progress
    - » Implementing at All Sites by August 15, 1997
  - Standard Control Room Performance Indicators Established
  - Operational Readiness Reviews Performed After Refueling Outages
  - Operations Benchmarking Every Six Months Against Industry
    - » Performed by 2 ComEd Operations Managers
    - » North Anna, Diablo Canyon, and Catawba
  - Operations ScoreCard Program Implemented by October 1, 1997



# *Focus on Safe Operations*

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- Division-Wide Standardized Policies and Programs
  - Standardized Safety Review Boards
    - » Implemented at All Six Sites
  - Standard Plant Operations Review Committee Procedure Developed
    - » Target Approval Date of August 15, 1997
    - » Target Implementation by September 15, 1997
  - Standard NOD-wide Corrective Action Program
    - » Implemented on May 19, 1997
  - Standard Global Out-Of-Service Program
    - » Implemented at Five Sites on June 28, 1997
    - » Quad Cities to Complete by September 13, 1997
  - Standard Shift Technical Advisor Program
    - » Training Underway at Byron and Quad Cities
    - » Provides Guidance to Senior Reactor Operators, Technical Interface, and Guidance for Investigations
    - » To Be Implemented at All Sites By December 31, 1998

# *Focus on Safe Operations*

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- Clear Division Focus on Safe Operations
  - – Zion Restart Activities In Progress
    - » Corporate Review and Involvement
    - » Phoenix Training Completed for 5 Shifts
    - » Training In-Progress for Other Plant Staff
  - LaSalle Restart Activities In Progress
    - » Corporate Review and Involvement
    - » LaSalle Operator Training Programs
  - Monthly Vice President Evaluations of Control Room Performance

# *Focus on Safe Operations*

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- Clear Division Focus on Safe Operations
  - Ongoing Monthly Performance Reviews
    - » Management Review Meetings
    - » Senior Leadership Committee Monthly Review of Nuclear Operations Division (NOD) Performance Indicators
  - Improving Equipment Reliability
    - » Pilot Training Conducted for 30 Engineers to Standardize System Performance Monitoring of Five Systems Including:
      - ◆ 125 V DC
      - ◆ Component Cooling
      - ◆ RHR
      - ◆ Main Control Room HVAC
      - ◆ Rod Control

# *Leverage Nuclear Operations Division's Size*

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- Peer Groups

- 12 Groups Up and Running

- » Management & Administration
    - » Work Control & Maintenance
    - » Equipment Reliability
    - » Industrial Safety
    - » Training
    - » Radiation Protection

- Operations
- Outage
- Configuration Control
- Materials & Services
- Regulatory Assurance
- RadWaste

- Focusing on Common, Safe and Effective Standards and Processes

- Standard Corrective Action Program

# *Leverage Nuclear Operations Division's Size*

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- Getting Work Done
  - Maintenance Screening
    - » Developed Standard Screening Process
    - » Reduced Action Requests and Backlogs at 4 of 6 Sites
  - 5 Week Schedule Implementation
    - » Braidwood, Dresden and Byron-Complete; Quad Cities and Zion-Implementation Kicked-off; LaSalle-On-Hold
    - » Assessment of Braidwood Implementation by Work Management Improvement Team
      - ◆ Strengths
        - Backlog reduced below established goals
        - Minor Maintenance process has improved efficiency and significantly contributed to backlog reduction
      - ◆ Improvement Areas
        - Scope Stability
        - Resource Management
        - Management Involvement

# *Leverage Nuclear Operations Division's Size*

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- Getting Work Done-Continued
  - Outage Planning
    - » Established Pre-Outage Milestones
  - Streamlined Plant Modification Process
    - » Issued Standard Nuclear Engineering Procedure on July 3, 1997 and Currently in On-Site Review
    - » Developed Standardized Training Material on July 31, 1997
    - » Implementing on September 1, 1997
- Training
  - Standardized Administrative Training Procedures Developed on April 18, 1997
    - » Procedure in On-Site Review Scheduled for Completion on August 31, 1997
  - Implemented Standard Performance Indicators on March 28, 1997

# *Leverage Nuclear Operations Division's Size*

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- Outage Optimization Team
  - Actions Intended to Achieve 40 Day Refueling Outages
  - Roll-Out for Fall of 1997 Outages
- Security Organization
  - Reports to CNOO
  - Standardization of Security Programs/Processes Ongoing
- Standard NOD Procedures
  - Developed 18 Standard Nuclear Station Procedures (NSP/NSWP)
  - Administrative Procedure Hierarchy Developed on July 21, 1997

# *Provide Adequate Financial and Human Resources*

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- First Line Supervisor (FLS) Selection and Training Programs
  - “Power-Up” Training Activities Ongoing:
    - » Assessment Centers for Selection of all FLS Began Operating in Late 1996
    - » Development Centers Established in Late 1996
    - » Training for Incumbents, New Supervisors, and Their Bosses
  - LaSalle Station First Line Supervisor Assessments In-Progress



# *Provide Adequate Financial and Human Resources*

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- Succession Planning at All Sites
  - New Process Designed in late 1996
  - Senior Management Succession Planning to be Completed by September 30, 1997
- Performance Management System / “Commit For Results (CFR)”
  - New System Designed and Implemented in 1997 at All Sites
- NOD Communications Teams
  - Provides Daily Communications Across NOD
  - “Reliable Source”
- Labor Relations Initiatives
  - Joint Leadership Council Education On-Going
  - MARC Training Continuing

# *Provide Adequate Financial and Human Resources*

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- Financial Resources

- Remain Sufficient to Achieve NOD Objectives
- 1997 Budget Authorized for \$1.028 B
- 1997 Budgets Prioritized Based on Current Outage Situations
- Established Monthly Budget Meetings for Each Site with Chief Financial Officer - Nuclear to Ensure NOD Financial Responsibility and Accountability

- Approximately 100 Engineers Added To ComEd Engineering Organization

- Design Basis Reconstitution
- UFSAR Validation

# *Oversight, Assessment, and Monitoring*

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- NOC of the Board Providing Aggressive Oversight of Nuclear Performance
- Strengthened Corporate Oversight
  - Established NOD-wide Standard Analysis and Reporting Process
  - Established Reporting Criteria for Emergent Trends or Issues
  - Industry Experience, Self-Assessment and Corrective Action Requests Evaluated
  - Analysis of Vice President Monitoring in Control Rooms
    - » Standards Interpreted/Implemented Differently at Some Stations
- Established Performance Indicators and Thresholds for Corrective Measures
  - 50.54(f) Indicators
  - Operations/Control Room Indicators
  - Maintenance/Getting Work Done Indicators
  - Corrective Action Indicators
  - Refueling Outage Preparation Indicators
- Nuclear Support Vice President Providing Executive Oversight of Zion and LaSalle Restart

# *Oversight, Assessment, and Monitoring*

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- Engineering Assurance Teams
  - Continue to Oversee Site Engineering Work
- Completed First Common Cause Analysis
  - Administrative Procedure Adherence an NOD Issue

# 50.54(f) Letter Response Actions

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- Action Items Being Closed As Per Established Workdown Curves
- Status of Action Items:

341	Total Action Items
120	Actions Closed
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221	Actions Remaining Open And/Or Are Ongoing

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# Performance Indicator Discussion

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# *Performance Indicators*

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- - Indicators Taken in *Total*
  - Indicators *Trended* Over Time
  - Our Indicators
    - Industry for Comparison
    - ComEd
    - *Collectively Define a Good Operating Plant*
  - Lower Level Indicators Provide Additional Support and Detail

# *NOD Performance Indicators (PIs)*

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## **Industry Indicators:**

● 7 NRC or WANO Indicators Designed to be Top Tier Indicators  
Selected to Measure ComEd Performance Against Peers With Goal of  
Being at (or Exceeding) Industry Average by Year 2000

- Automatic Scrams While Critical
- Safety System Actuations
- Collective Radiation Exposure
- Unplanned Capacity Loss Factor
- Unit Capability Factor
- Safety System Performance
- Industrial Safety



# *ComEd Specific Indicators:*

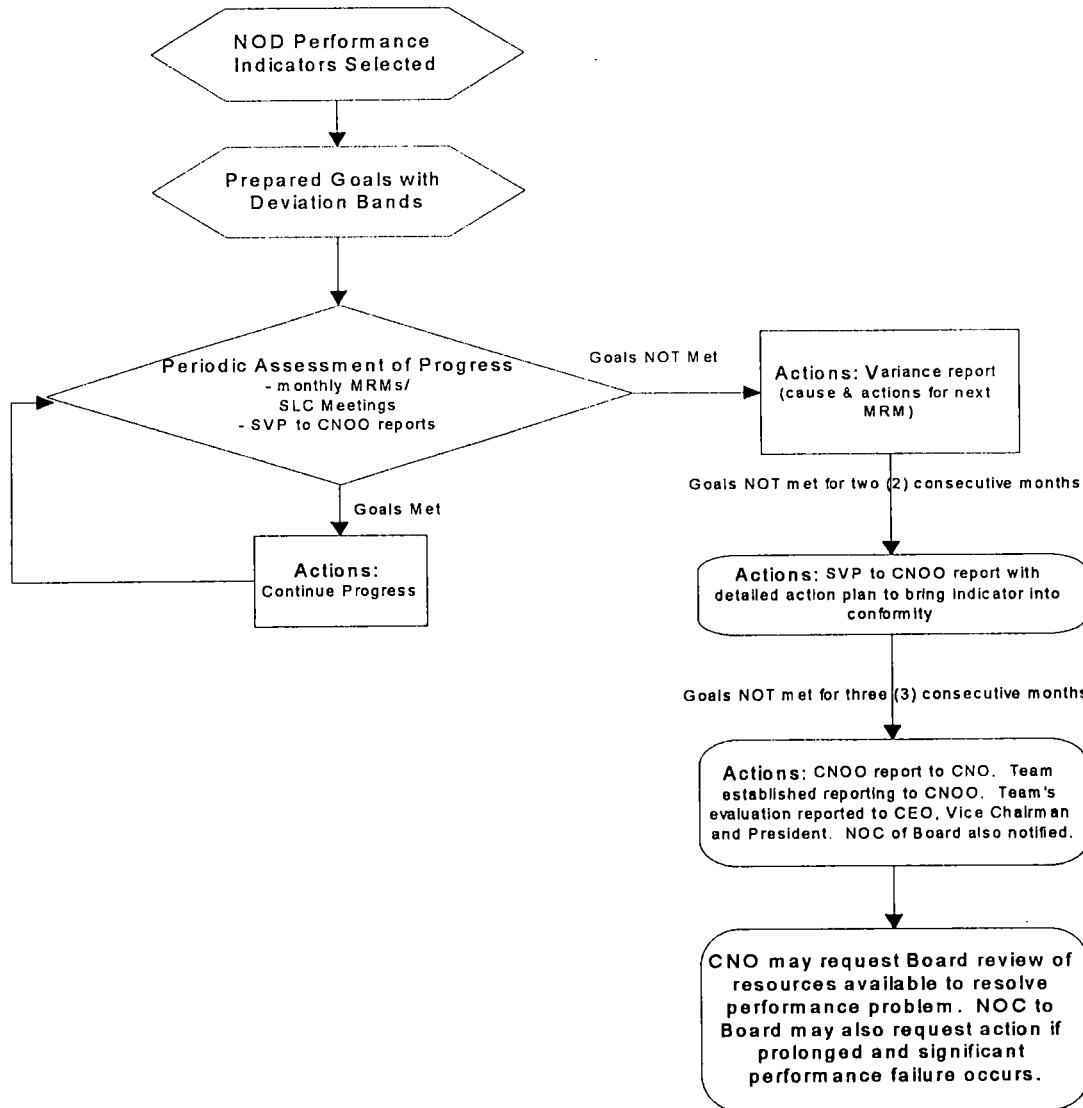
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## 18 NOD Indicators Selected to Drive

### Improvement Efforts for Specific Targeted Areas

- Operator Workarounds
- Out Of Service (OOS) Errors
- Human Performance Licensee Event Reports (LERs)
- Temporary Alterations
- Failed Technical Specification Pump & Valve Surveillances
- Unplanned Entries into Limiting Conditions of Operation (LCOs)
- Non-Outage Corrective Work Requests
- Percent Rework
- Outage Corrective Work Requests
- Engineering Requests
- Engineering Requests Overdue
- Corrective Action Items
- Overdue Corrective Actions
- Repeat Events
- Number of Problem Identification Forms (PIF)
- Overtime Hours
- Percent Floor Space Contaminated
- Cited NRC Violations

# Performance Indicator Monitoring Process



# *What Do They Tell Us?*

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- Some Performance Measures:
  - Show Sustained *Good* Performance
  - Illustrate *Changes* in Improved Performance With Demonstrated *Results*
  - Point Out the Need for *Improvement*

# *Industry Indicators*

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## **Good Performance**

Automatic Scrams  
while Critical

Safety System  
Actuations

## **Improved Performance**

Collective  
Radiation  
Exposure

Industrial Safety  
Accident Rate

## **Needs Improvement**

Unit Capability Factor

Unplanned Capability Loss  
Factor

Safety System Performance

# *ComEd Specific Indicators*

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<b>Good Performance</b>	<b>Improved Performance</b>	<b>Needs Improvement</b>
Operator Workarounds	Non-Outage Corrective Work Requests	Human Performance LERs
Temporary Alterations	Out of Service Errors	Percent Rework
Overtime Hours	Overdue Corrective Actions	
Percent Floor Space Contaminated	Repeat Events	

# Conclusions

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- Making Progress
- Not Declaring Success
- Emphasis on Safe Operations