Commonwealth Edison Company
1400 Opus Place
Downers Grove, IL 60515-5701

October 22, 1997

ComEd

U.S. Nuclear Regulatory Commission
Washington, DC 20555

Attention: Document Control Desk

Subject: Braidwood Nuclear Power Station Units 1 and 2
Byron Nuclear Power Station Units 1 and 2
Dresden Nuclear Power Station Units 2 and 3
LaSalle Nuclear Power Station Units 1 and 2
Quad Cities Nuclear Power Station Units 1 and 2
Zion Nuclear Power Station Units 1 and 2

Supplemental Information Regarding Commonwealth Edison Company's (ComEd) Response to the U.S. Nuclear Regulatory Commission (NRC) Request for Information Pursuant to 10 CFR 50.54(17) Regarding Safety Performance at ComEd

NRC Docket Nos. 50-456/457
NRC Docket Nos. 50-454/455
NRC Docket Nos. 50-237/249
NRC Docket Nos. 50-373/374
NRC Docket Nos. 50-254/265
NRC Docket Nos. 50-295-304

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."

(2) Letter from T.J. Maiman to U.S. NRC, dated April 15, 1997, Transmitting Information on ComEd Nuclear Operations Division Performance Indicators.

(3) Letter from H.W. Keiser to U.S. NRC, dated June 2, 1997, Transmitting Supplemental Information Regarding Commonwealth Edison Company's (ComEd) Response to the U.S. Nuclear Commission (NRC) Request for Information Pursuant to 10 CFR 50.54(f) Regarding Safety Performance.

(4) Letter from H.W. Keiser to U.S. NRC, dated July 29, 1997, Transmitting Supplemental Information Regarding Commonwealth Edison Company's (ComEd) Response to the U.S. Nuclear Commission (NRC) Request for Information Pursuant to 10 CFR 50.54(f) Regarding Safety Performance.

(5) Letter from R.J. Manning to U.S. NRC, dated October 8, 1997, Transmitting. Supplemental Information Regarding Commonwealth Edison Company's (ComEd) Response to the U.S. Nuclear Regulatory Commission (NRC) Request for Information Pursuant to 10 CFR 50.54(17) Regarding Safety Performance at ComEd.

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Dear Mr. Callan:

In Reference (1), ComEd provided its response to the U.S. Nuclear Regulatory Commission (NRC) request for information pursuant to 10 CFR 50.54(f) regarding safety performance at ComEd. Under separate cover, via Reference (2), information regarding the performance indicators that ComEd selected to measure its performance across the six nuclear stations was provided. Also included were the definitions and threshold values for each specific indicator. Reference (3), (4) and (5) provided updated information regarding threshold values and goals for several Performance Indicators. A summary of plant performance was shared with the staff at presentations made on June 3, August 5 and October 9. On October 24 information will be shared regarding the November 4 Commissioner's Briefing.

The purpose of this letter is to describe the results which ComEd has achieved by implementing the extensive performance improvement program that was described in response to the NRC's request for information under 10 C.F.R. 50.54(f). Progress on the site recovery efforts at Zion and LaSalle are also included. Overall, these results show that performance across the Nuclear Operations Division (NOD) is mixed, but measurably improving.

We look forward to discussing this furhter with you at the November 4 Commissioners Briefing.

Sincerely,

Robert J. Manning
Executive Vice President

cc: H. Thompson, Deputy Director for NRR
A.B. Beach, Regional Administrator RIII
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G. Dick, Byron/Braidwood Project Manager - NRR
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Dresden Senior Resident Inspector
LaSalle Senior Resident Inspector
Quad Cities Senior Resident Inspector
Zion Senior Resident Inspector
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Commonwealth Edison Company
Nuclear Operations Division
Performance Status Report

Introduction

This report describes the results which Commonwealth Edison (ComEd) has achieved by implementing the extensive performance improvement program that was described in the response to the NRC's request for information under 10 C.F.R. 50.54(f). Progress on the site recovery efforts at Zion and LaSalle also are included. Overall, these results show that performance across the Nuclear Operations Division (NOD) is mixed but is measurably improving.

To evaluate performance and to demonstrate measurable performance improvement, ComEd has supplemented the traditional performance evaluation methods with performance indicators that are targeted at known problems which had not been adequately monitored previously. These performance indicators are a key element in ComEd's program to break the pattern of cyclic performance. As discussed in this report, the insights provided by the performance indicators are combined with the results of other, more traditional performance measures, including self-assessment, audits by Quality and Safety Assessment (Q and SA), and third party reviews, to provide ComEd management with the information necessary for monitoring performance at each of the six nuclear power plant sites, as well as the NOD as a whole. By evaluating the effectiveness of the ongoing performance improvement programs at the sites and the NOD, ComEd management has the information necessary for preventing cyclic performance by taking timely additional actions when plant or NOD performance improvements are not realized as expected.

This enhanced evaluation capability has been realized by the NOD's adoption of the performance indicators which were described in ComEd's 50.54(f) response. The indicators were chosen to supplement the other sources of performance information that have been relied on traditionally by ComEd. The bases for these particular performance measures became apparent from the findings of intensive performance evaluations like the Independent Safety Inspection (ISI) at Dresden and the Independent Safety Assessments (ISAs) at LaSalle and Zion. Those evaluations showed that several problems required closer attention then they had been getting from the traditional methods for evaluating performance. Among these problems were: the NOD's inability to fully keep pace with the performance of its peers, operators receipt of the full support that they needed, delays in getting work done, degradation of material condition, inconsistency in engineering's full support for the plants, and a piecemeal corrective action program that was not adequately transferring lessons learned across the NOD to minimize the likelihood of repeat events that could lead to recurrence of cyclic performance.

Seven of the performance indicators, the "industry indicators" compare the performance of ComEd's plants to plant performance across the industry in seven well-established areas. These indicators were chosen to give NOD management the information

it needs to drive performance improvement and prevent cyclic performance. They have been grouped into noe functional area called industry comparison. By keeping NOD management abreast of how well the NOD is performing compared with its industry peers and year 2000 goals that reflect industry expectations, these industry indicators will help management to take the actions necessary for assuring that NOD performance keeps pace with its peers and with rising industry standards.

In addtion to the industry comparison indicators, eighteen "performance improvement indicators" were initially adopted to measure eighteen specific aspects of performance at each of ComEd's sites and across the NOD. Experience, as discussed in a separate letter, shows that three of these indicators did not contributed to performance assessments as expected. Therefore, they have been dropped.

The performance improvement indicators have been grouped into three functional areas: operations, maintenance and engineering, and corrective actions. As with the industry comparison indicators discussed above, the indicators that comprise these three functional areas were chosen to provide additional information in specific areas which the intensive performance reviews had identified as problematic. In the functional area of operations, the indicators focus on operational impediments and distractions and their consequences. In the functional area of maintenance and engineering, the indicators focus on material condition, the ability to get work done, and engineering support to the sites. Lastly, in the functional area of corrective actions, the indicators focus on the program's effectiveness in identifying problems, addressing them in a timely manner and assuring that common problems are addressed across the NOD to preclude the recurrence of events.

NOD management uses the information from these performance indicators to take timely action when performance expectations are not met. The value of this process for avoiding the continuing repetition of cyclic performance is clear from the comprehensive internal and third-party performance reviews that have been conducted for the NOD since 1992. Those reviews concluded that although ComEd had accurately determined its performance problems and had developed adequate performance improvement programs to address those problems, a fundamental cause of the continuing cyclic performance was ComEd's inability to complete those programs. NOD management has determined that program completion can be better achieved by using the performance indicators in conjunction with the variance process that is described below.

The variance process is a structured process for assuring timely management actions in response to failures to meet performance expectations. It is based on management's quantitative establishment of performance expectations through the establishment of limits and goals. If a performance indicator's deviation from its goal exceeds the pre-established limit, that indicator is said to be "in variance" and becomes subject to a management process for returning it to a level of acceptable performance. The longer the performance indicator remains in variance, the greater the management effort that is expected to be taken to return the indicator to acceptable limits. By establishing this structured process for taking timely action and progressively escalating actions for indicators in variance, NOD

management has addressed the recognized root cause of cyclic performance and, therefore, expects to prevent its recurrence.

Table 1 shows the performance indicators that comprise the functional area of industry comparison. Tables 2, 3 and 4 respectively show the performance indicators that comprise the functional areas of operations, maintenance and engineering, and corrective actions. Management's assessment of performance in each functional area includes the consideration of the performance indicator patterns for each functional area. An overall assessment of each plant's performance is obtained by combining the performance results for the functional areas. These collective assessments are important to management's efforts to avoid cyclic performance.

Overall NOD Performance

Whether examined in a plant by plant manner or functional area by functional area, performance across the NOD is mixed but improving. From a plant perspective, Byron and Braidwood continue to be good performers. Dresden continues to improve. Quad Cities has also improved but its performance improvement has recently leveled off, as shown by recent events. Actions are being taken to regain momentum there. LaSalle and Zion continue to make progress on their recovery plans.

From a functional area perspective, the comparison with the industry-wide indicators for the four operating plants has shown the most consistent performance improvement to date. Performance in three of the seven industry indicators is at or above industry average at the operating plants. Operations also has generally improved at the four operating sites. Maintenance and engineering is the functional area that requires the most attention but good progress has been observed in getting work done at the three sites which have recently adopted the five week schedule. Finally, the corrective action process is improving at most sites due to the adoption of a standardized, division-wide corrective action program.

Among other initiatives leading to performance improvement is the NOD's continued use of the peer groups. These groups provide another vehicle for joint station action to improve performance across the NOD. For example, in response to an NRC concern about the need for extensive interactions with ComEd on license submittals, the Regulatory Assurance Peer Group has initiated the preparation of a Nuclear Station Procedure (NSP) which will describe a detailed, standard process for preparing and processing requests for license amendments. A standard template will be included to help licensing personnel to ensure that all requests include all of the necessary information. Further help will be provided by a checklist which will guide ComEd's development and review of amendment requests. A draft procedure has been prepared by a team of experienced licensing personnel and is currently undergoing final review and approval

Further supporting performance improvement is the division -wide corrective action program, which now enables the NOD to identify and address common problems that may be identified at the sites. One such common problem has been identified by the recently conducted Common Cause Analysis (CCA). It corroborated and refined previous observations by the NRC and others that across the NOD there has been a problem with adherence to procedures. The CCA found that the predominant procedure non-adherences are rule based violations of administrative procedures.

This detailed understanding of the administrative procedure non-adherence problem supported the focused root cause analysis. It found four reasons for rule based non-adherence to administrative procedures: (1) incomplete accountability processes at the sites; (2) a common belief among workers that non-adherences would not be discovered; (3) a high mental burden caused by the large number of procedures and conflicts among them; and (4) a lack of coaching in the field regarding expectations for worker behavior. To address these root causes, the following actions have been initiated with the cooperation of the Vice-President for Human Resources: (1) all sites will adopt Braidwood's successful accountability process; (2) all site operating departments will adopt Braidwood's successful scorecard program which includes field monitoring of worker implementation of management's expectations, behavioral observations, on-the-spot coaching, and tracking and trending to identify opportunities for performance improvement; (3) the station manager's peer group will continue to streamline and simplify administrative procedures; and (4) all sites will adopt Quad Cities' successful use of a pocket-sized summary of essential administrative procedures.

Individual Site Performance

This section provides detail which shows how the performance indicators and other data support the general conclusions about performance at the sites.

Braidwood

Braidwood's performance relative to industry standards has continued to improve, and is now strong, as demonstrated by the positive pattern of the industry indicators. Five of the seven industry comparison indicators are at the performance level of the year 2000 goals. Braidwood has had no automatic reactor trips or safety system actuations so far this year. Unit capability factor has been good. Unplanned capability loss factor, safety system performance and ISAR have all improved to be better than the industry average. Collective radiation exposure also has decreased but will need to continue improving to keep pace with the industry. Braidwood's good performance compared to the industry comparison functional area is corroborated by the NRC's SALP 1 rating in operations and the integrated performance model, which is based on a plant performance algorithm that is derived from the NRC's performance indicators for the industry and is sensitive to changes in those indicators at the plant.

Braidwood's operations performance indicators consistently show that operations and human performance have improved noticeably. This was due in part to the comprehensive Human Performance Improvement Initiative that began in the middle of 1996. Workarounds are being reduced ahead of schedule, the number of human performance LERs continues to decrease, and temporary modifications are being reduced ahead of plan. Contaminated floor space also has been reduced. Less significant out-of-service errors, configuration control, and procedure adherence still present human performance challenges that are being addressed.

Braidwood's performance is improving significantly in the functional area of maintenance and engineering. Braidwood piloted the five week work cycle. It establishes a series of work pre-planning activities which are to be completed by specified times during the five weeks before work is scheduled to be performed. Implementation of the process also encourages inter-departmental communication on getting work done.

The process is structured so that during any week, activities are going on at various stages in the pre-planning process for work that is to be done in each of the subsequent five weeks. If, as the pre-planning process progresses for any particular work, it becomes clear that some critical element necessary for doing that work at the scheduled time will not be available, that work is rescheduled and time is not lost on waiting to perform work for which preparations could not be finalized.

The five week work cycle has had a clear, positive impact on the station's ability to do work. Other strategies have also significantly reduced the backlog of non-outage corrective work requests. In response, the station has adopted a more challenging workdown curve. Percent rework is high but not in variance. Nevertheless, the reasons for rework are being trended through the Corrective Action Program to find the causes. Engineering is supporting the plant by making progress on the station's long-standing equipment problems. The results can be seen in the reduction of operator workarounds, temporary modifications and engineering requests.

At Braidwood, the backlog of corrective actions is about average for the NOD, and the number of PIFs is growing. The number of repeat events is within the measurement standard but above station expectations. Recent variations in the number of overdue corrective actions have caused management to focus on this issue. Overall performance in this functional area is generally good.

Byron

Byron's performance relative to the industry remains good, as demonstrated by the pattern of the industry comparison indicators. This is reinforced by the recent upturn in performance as measured by the integrated performance model. Byron has had one automatic reactor trip (in October) and no safety system actuations. Unit capability factor and safety system performance remain good. Recent ISAR events have not repeated. If

this continues, Byron's good record in this area can be expected to be re-established as the earlier events average out over time. Collective radiation exposure has increased due to work on specific plant modifications and mid-cycle steam generator outages. Those increases can be expected to continue due to the steam generator replacement outage.

At Byron, the operations performance indicators consistently show that operation continues to be generally strong. Progress continues be made on reducing the number of operator workarounds. There continues to be a low number of out-of-service errors, and the number of human performance LERs has dropped substantially so far in 1997 to a low level. Good performance continues on limiting contaminated floor space. The number of temporary modifications is increasing as was expected in preparation for the upcoming outage for the steam generator replacement.

Byron's maintenance performance has improved since the station adopted the five week work schedule. The backlog of non-outage corrective work requests is being reduced but more attention will be paid to reducing the safety-related backlog. Percent rework is high compared with management's expectations.

Byron piloted the Common Corrective Action Program for the NOD. The number of overdue corrective actions is very low, and the number of repeat events is very low. The number of PIFs is below the NOD average, but increasing. The substantial number of additional open corrective actions resulting from the root cause investigation into the Essential Service Water event is being worked off. Problem resolution has been generally effective.

Dresden

Dresden's performance relative to the industry has improved substantially, as demonstrated by the positive pattern of the industry indicators. This performance improvement is believed to be due in part to the program to upgrade material condition at the plant. Dresden has had no automatic reactor trips or safety system actuations. In 1997, unit capability factor is increasing to near the historic high for this site. Unplanned capability loss factor, ISAR, and safety system performance all have improved so far in 1997. Currently, however, safety system performance is in variance. Collective radiation exposure has decreased to near the industry average. Overall, four of the seven indicators currently meet the year 2000 goal.

At Dresden, the performance indicators show that operations is improving but that the improvement is mixed. This is consistent with other observations which differentiated between the sustained improvement of operator performance in the control room and the need for further performance improvement outside the control room. Operator workarounds are being reduced ahead of schedule and there has been a significant reduction in the number of out-of-service errors. However, the number of human performance LERs

has resulted in the station being above the target for this indicator. The rate of reduction of temporary modifications is on schedule and the number has decreased substantially.

Dresden's performance in the maintenance and engineering functional area is improving noticeably. The safety related backlog has been reduced. Implementation of the five week work planning process has lead to a substantial decrease in the backlog of non-outage corrective work requests. Percent rework is reduced. The reduction in engineering requests is ahead of schedule.

Dresden responded to the NRC's ISI by piloting the EAG concept for the NOD. The EAG independently assesses the quality of engineering work products before they are transferred to the field and provides feedback to engineering on specific aspects of the quality of its products. After some initial startup difficulties, the EAG is now functioning at Dresden to provide additional confidence in the quality of engineering products..

Emergent engineering issues are being addressed in a more timely manner by the Rapid Response team. It is a small dedicated group of engineers who have three primary missions related to helping to get work done. First, the team is known to the station as the first point of contact for any plant or equipment problem that could involve engineering. In this role, the team expedites the station's response to the situation by organizing the response, determining who needs to respond, and assuring that any needed additional personnel are made available. Second, the team helps maintenance and work control to get work done by answering questions as they arise. Lastly, the team helps to reduce the engineering backlog by working small tasks.

At Dresden, overall performance in the corrective action area is improving. The backlog of corrective actions is average, the number of overdue corrective actions is coming down, the number of repeat events is very low, and the number of PIFs is among the highest for the NOD. There is a high rate of problem self-identification.

LaSalle

LaSalle's performance can only be partially evaluated in terms of the performance indicators because the station is in an extended outage. To complete the picture, it is necessary to also consider LaSalle's progress on its restart plan. That information is provided periodically in public meetings and will not be repeated here.

LaSalle's performance relative to the industry is primarily characterized by its current shutdown status. In addition, it can be evaluated partially by the industry comparison indicators for safety system actuaions and ISAR. LaSalle has not had any safety system actuations and has a good ISAR.

At LaSalle, the operations performance indicators show that performance is mixed. The number of operator workarounds has been increasing and the station is behind schedule

on eliminating them. The removal of temporary modifications is on schedule. The previously high out-of-service error rate has recently been reduced in response to management initiatives. A root cause analysis found too great a focus on task completion compounded by frequent changes in schedule. Corrective actions are underway.

LaSalle's performance in the area of maintenance and engineering is poor. The non-outage corrective work request backlog has increased but the rate of workdown is ahead of schedule. Percent rework is high.

LaSalle's corrective action program has mixed performance. The number of open corrective actions is high, the number of overdue corrective actions is coming down, the number of repeat events is average, and the number of PIFs is above NOD average. Site performance will be challenged overall as the site responds to the findings in the System Functional Reviews.

Quad Cities

Quad Cities' performance relative to the industry has improved to be generally near industry norms, as demonstrated by the pattern of the indicators and corroborated by the integrated performance model. The recent leveling off of performance improvement, as reflected by the results of the NRC's maintenance rule inspection and the on-going Appendix R safe shut-down issues, is related to engineering support and is being addressed by management. Quad Cities has had no automatic reactor trips and the number of safety system actuations has decreased significantly. Collective radiation exposure has improved but is higher than the industry level.

Quad Cities' operations performance indicators show that performance continues to improve generally with only a few inconsistencies. Operator distractions have been reduced. Operator workarounds have been reduced to the lowest level in the NOD, the out-of-service error rate has improved substantially as has the number of human performance LERs, and the number of temporary modifications is being reduced. Human performance issues have been found for the conduct of less complex tasks. The station is still working on meeting the surveillance challenges presented by the adoption of the new Technical Specifications.

Quad Cities' performance in the area of maintenance and engineering is mixed. The backlog of non-outage work requests and backlog of safety related work requests is low, as is the percent rework. However, engineering performance is inconsistent. Actions have been taken to support improved training programs and remove operator distractions but implementation support for the Maintenance Rule and the fire protection program have presented challenges.

Quad Cities' corrective action program is generally improved, with some exceptions. The station had not previously identified problems with implementation of the

programs for the Maintenance Rule and fire protection requirements. More broadly, the numbers of open corrective actions, and overdue corrective actions are low. The corrective action backlog is also low. The number of PIFs is low, but increasing. However, the number of repeat events does not meet management's expectations and is being addressed.

Zion

Zion's performance can only be partially evaluated in terms of the performance indicators because the station is in an extended outage. To complete the picture, it is necessary to also consider Zion's progress on its recovery plan. That information is provided periodically in public meetings and will not be repeated here.

Zion's performance relative to the industry is primarily characterized by its current shutdown status. In addition, it can be evaluated partially by the industry comparison indicators for safety system actuaions and ISAR. LaSalle has not had any safety system actuations and has a good ISAR. Zion does have a good ISAR. However, the station is in variance for safety system actuations. Corporate Nuclear Oversight is assessing the circumstances.

Zion's performance indicators show that operations performance is inconsistent and poor but with some improvement. Operator workarounds and temporary modifications are high. The workdown curves for these two indicators have been modified to reflect the larger numbers that are expected due to the delayed startup. Contaminated floor space has been reduced significantly and ahead of schedule. Configuration control remains a concern.

Zion's performance in the area of maintenance and engineering is mixed. The non-outage work request backlog is high but decreasing. The safety-related backlog is high. Percent rework is good.

Zion's corrective action program is poor but improving. The number of open corrective actions is average and the number of overdue corrective actions is among the highest for the NOD. The self-identification rate is increasing, and the number of PIFs is about average. Zion is receiving additional corporate support to help it to deal with the high number of overdue corrective actions.

Conclusion

In conclusion, the current performance snapshot in time for the industry indicators shows that performance at the operating plants is, in most cases, similar to performance by our industry peers. Byron and Braidwood remain good, strong performers. Dresden has sustained its improving trend. Quad Cities has also improved although the trend has recently leveled off, as shown by recent events. Actions will be taken to regain momentum

there. LaSalle and Zion cannot be compared meaningfully to their industry peers in this regard because they are shutdown and in recovery. They will be restarted only after ComEd is confident that they can operate safely and reliably.

All of the operating plants are, in general, performing at levels that are either at or approaching industry norms. This is in part due to several group-wide initiatives which are having noticeable positive impacts. Among these are the focus on conservative operations, especially the removal of operator burdens and distractions; the adoption of a common corrective action process at all six sites; and the five week work schedule process that has already been implemented at Braidwood, Byron, and Dresden and will be implemented at the rest of the plants. Continued attention to these initiatives can be expected to result in continuing performance improvement.

Finally, additional support for performance improvement is provided by the augmentation of traditional management oversight by the use of the performance indicators and the associated variance process. Current NOD performance as measured by the indicators and other, more traditional performance evaluation tools, shows that ComEd is capable of improving performance at Dresden and Quad Cities so as to bring them into the mainstream of the industry while conducting deliberate recovery efforts at LaSalle and Zion and maintaining and enhancing performance at Braidwood and Byron.

Industry Comparison

PIs: / Plant	I-1: Automatic Scrams	I-2: Safety System Actuations	I-3: Collective Radiation Exposure*	I-4: Unit Capability Factor*	I-5: Unplanned Capability Loss Factor*	I-6: Safety System Performance	I-7: Industrial Safety Accident Record	Plant Industry Comparison Performance
Braidwood	At year 2000 goal	At year 2000 goal	At industry average	At industry average	At year 2000 goal	At year 2000 goal	At year 2000 goal	5/7 Indicators at year 2000 goal
Byron	At year 2000 goal	At year 2000 goal	Worse than industry average	At industry average	At industry average	At year 2000 goal	Worse than industry average	3/7 Indicators at year 2000 goal
Dresden	At year 2000 goal	At year 2000 goal	Improved to near industry average	Improving to near historical high (site)	Worse than industry average	At year 2000 goal	At year 2000 goal	4/7 Indicators at year 2000 goal
LaSalle	N/A	At year 2000 goal	At year 2000 goal	N/A	N/A	N/A	At year 2000 goal	3/7 Indicators at year 2000 goal
Quad Cities	At year 2000 goal	At industry average	Worse than industry average	Improving to near historical high (site)	Worse than industry average	At year 2000 goal	At year 2000 goal	3/7 Indicators at year 2000 goal
Zion	N/A	Worse than industry average	At year 2000 goal	N/A	N/A	N/A	At year 2000 goal	2/7 Indicators at year 2000 goal
NOD Indicator Performance	I-1: Dramatic improvement to better than industry average at operating sites	I-2: At or better than industry except for Zion	I-3: Mixed and could increase in future due to steam generator replacement	I-4: Capability is improving at the 4 operating sites	I-5: Dresden and Quad need to improve	I-6: All operating sites at or better than industry average and showing significant improvement	I-7: Showing substantial improvement and zero at all Sites in September.	NOD Industry Comparison Performance-mixed but good and improving for operating plants

N/A = Difficult to use goal for meaningful comparison while shutdown

* = Year to date through September plus year end projection

Shaded areas = Industry Comparisons needing improvement to meet industry averages

Operations

Functional Area Performance

PIs / Plant	C-1: Operator Workarounds	C-2: Out-of-Service Errors	C-3: Human Performance LERs	C-4: Temporary Modifications	C-5: Failed Tech Spec Pump/Valve Surveillances	C-6: Unplanned Entries into LCOs	C-7: Percent Floor Space Contaminated	Plant Operations Performance
Braidwood	Ahead of Schedule	Good Performance	Better Than Industry and Improving	Ahead of Schedule	N/A	N/A	Good Performance	Good Performance
Byron	On Schedule	Good Performance	Better Than Industry	On Schedule	N/A	N/A	Good Performance	Good Performance
Dresden	Ahead of Schedule	Good Performance	Worse Than Industry	On Schedule Substantial Reduction	N/A	N/A	Ahead of Schedule	Good Performance Except for C-3
LaSalle	Behind Schedule	Poor Performance Recent Action Seems Effective	Average Performance	On Schedule	N/A	N/A	Good Performance Substantial Reduction	Mixed Performance
Quad Cities	Ahead of Schedule Substantial Reduction	Good Performance	Average Performance	On Schedule	N/A	N/A	Ahead of Schedule	Good Performance
Zion	Ahead of Schedule but Goal Increased	Poor Performance Having Configuration Issues	Average Performance	Ahead of Schedule	N/A	N/A	Good Performance Substantial Reduction	Poor Performance
NOD Indicator Performance	Improvement except LaSalle and Zion	Mixed performance however, zero at all Sites in September	Mixed performance with limited improvement	Meeting targets but not meeting benchmark across NOD	Threshold Development	Threshold Development	On Target to Meet Goals	NOD Operations Performance-Mixed

Shaded Area = Improvement Needed

Maintenance and Engineering

Functional Area Performance

PIs / Plants	C-8: Non-Outage Work Requests	C-9: Percent Rework	C-11: Engineering Requests	C-12: Engineering Requests Overdue	Plant Maintenance and Engineering Performance
Braidwood	Behind Schedule Substantial Decrease	Better Than Threshold	Ahead of Schedule	N/A	Average Performance
Byron	On Schedule	Better Than Threshold	Ahead of Schedule	N/A	Good Performance
Dresden	Ahead of Schedule Safety-Related Backlog Reduced	Good Performance	Ahead of Schedule Substantial Reduction	N/A	Good Performance
LaSalle	Ahead of Schedule High Backlog	Good Performance	Behind Schedule and Increasing	N/A	Poor Performance
Quad Cities	Ahead of Schedule Safety-Related Backlog Reduced	Good Performance	Behind Schedule Substantial Reduction	N/A	Average Performance Maintenance. Engineering Performance Improvement Needed
Zion	Ahead of Schedule High Backlog	Better Than Threshold	Ahead of Schedule	N/A	Poor Performance
NOD Indicator Performance	Good performance against goals	Better than threshold but needs improvement across NOD	Mixed performance	Developing Threshold	NOD Maintenance Performance is mixed Engineering Performance - Lower Tier Indicators Show Improvements in Quality of Engineering Products

Shaded Area = Improvement Needed

Corrective Actions

Functional Area Performance

PIs / Plants	C-13: Corrective Actions Open	C-14: Overdue Corrective Actions	C-15: Repeat Events	C-16: Number of PIFs written	Plant Corrective Action Performance
Braidwood	Backlog Decreasing	Historically Low Overdue	Average Performance	Total Number Increasing	Good Performance
Byron	Backlog Increasing 300 Written for SW Root Cause	Historically Low Overdue	Historically Low Repeat Events	Total Number Increasing	Good Performance
Dresden	Backlog Decreasing	Zero Overdue for 5 Months	Repeat Events Have Decreased	Total Number Increasing	Good Performance
LaSalle	Backlog Increasing	Overdue Decreasing	Average Performance	Total Number Increasing	Average Performance
Quad Cities	Backlog Decreasing	Overdue Decreasing	Average Performance	Total Number Increasing	Average Performance
Zion	Backlog Increasing	Historically High Overdue Better Performance Last 4 Months	Repeat Events Decreasing to Less Than Threshold	Total Number Increasing	Poor Performance
NOD Indicator Performance	Mixed performance	Overall good performance	Decreasing across division but, concern about open root cause reports	Increasing across NOD	NOD Corrective Actions Performance Improving Across NOD

Shaded Area = Improvement Needed