

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Report Nos.: 50-220/91-06
50-410/91-06

Docket Nos.: 50-220
50-410

License Nos.: DPR-63
NPF-69

Licensee: Niagara Mohawk Power Corporation
301 Plainfield Road
Syracuse, New York 13212

Facility: Nine Mile Point, Units 1 and 2

Location: Scriba, New York

Dates: February 16 through March 30, 1991

Inspectors: W. A. Cook, Senior Resident Inspector
R. R. Temps, Resident Inspector
R. A. Laura, Resident Inspector

Approved by: Donald R. Haverkamp
Donald R. Haverkamp, Chief
Reactor Projects Section No. 1B

4/17/91
Date

Inspection Summary: This inspection report documents routine and reactive inspections of plant operations, maintenance, surveillance, security, engineering/technical support, and safety assessment/quality verification activities.

Results: See Executive Summary.

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EXECUTIVE SUMMARY

Nine Mile Point Combined Inspection Report
Nos. 50-220/91-06 and 50-410/91-06
02/16/91 - 3/30/91

Plant Operations:

Unit 1 operations performance was good during this inspection period, particularly in support of the completion of the mid-cycle outage and restart of the unit.

Unit 2 operations performance was mixed. Poor control over unsampled diesel fuel oil resulted in an Unusual Event (UE) and Technical Specification forced shutdown until a fuel oil sample was analyzed as satisfactory. The identification of this sampling oversight by the operations support staff was noted as good technical performance and corrective actions by the operations staff were comprehensive. A non-cited violation (50-410/91-06-01) was issued for this event. Good performance was noted in the close monitoring of drywell unidentified floor drain leakage and a conservative decision to reduce power and investigate resulted in the discovery of a reactor coolant pressure boundary leak necessitating a forced shutdown and UE declaration.

Housekeeping at both units was adequate, a number of minor discrepancies were addressed with station management and appropriately resolved.

Surveillance and Maintenance:

Maintenance and surveillance activities observed at both units were generally well planned and executed. The inspector observed a poor practice with respect to the use of installed gages vice more precise test gages for inservice testing at Unit 2.

Security and Safeguards:

No noteworthy observations or concerns were identified this inspection period.

Engineering and Technical Support:

Niagara Mohawk response at both units to a recent industry concern involving insufficient net positive suction head for standby liquid control system pumps was prompt and comprehensive

A Unit 2 licensee identified, non-cited violation (50-410/90-06-02) was reviewed involving the failure to meet environment qualification requirements for containment monitoring system resistance temperature detectors.



Executive Summary (Continued)

Safety Assessment/Quality Verification:

Inspector review of an accountability meeting identified a potential program implementation weakness in the lack of incorporation of accountability process issues into the existing quality program problem identification and resolution processes to ensure effectiveness of corrective actions.



DETAILS

1.0 PLANT OPERATIONS

1.1 Unit 1

The inspection period began with the unit shutdown for the mid-cycle surveillance and maintenance outage. The outage progressed well and was completed ahead of schedule. The reactor was taken critical on March 22, 1991, and the generator synchronized to the grid on March 23, 1991. At the end of the period, the unit was at full power with preparations underway to reperform the turbine torsional test.

1.1.1 Good operations support for the mid-cycle outage was observed during the period. Involvement by operations personnel in the planning and outage meetings was noted. Control room personnel provided good support for removing equipment from service and in marking-up systems to allow for maintenance and/or testing. Aiding in the mark-up effort was the implementation of a computerized mark-up system, similar to the system being used at Unit 2. Operations personnel were able to effectively implement this new computerized system to support outage activities despite it only being available (and still in the developmental phase) since the beginning of the year. No problems were identified in the control of markups, equipment status or in the surveillance tests performed by the operations group.

1.1.2 On March 4 the Unit 1 control room operators made an emergency notification system (ENS) call to report that seven emergency response sirens were out of service due to a loss of power. A severe ice storm had hit the area and caused some temporary losses of electricity. The sirens were restored later in the day. The inspector noted that Niagara Mohawk notified the FitzPatrick control room operators of the loss of sirens and their subsequent return to service. The inspector concluded that operator response to this event was appropriate.

1.1.3 The inspector noted that prior to startup of the unit Niagara Mohawk was unable to verify the capability of obtaining a small volume post-accident sample system (PASS) sample. A large volume sample was capable of being taken. Station management deliberated the acceptability of this condition to support the safe startup and continued operation of the unit. They concluded that repairs could be made to the small volume PASS piping and valves while the unit was operating and that PASS reactor water sampling capability was still available via the large volume method. The inspector considered that Niagara Mohawk's resolution of this condition was acceptable.

1.1.4 Inspector tours of various plant areas identified a number of poor housekeeping practices and potential minor equipment control concerns. The specific observations were provided to plant management. Some of the observations were immediately resolved and others were still being assessed at the conclusion of the inspection period.



1.2 Unit 2

The reactor operated at or near full power most of this inspection period. Two Unusual Events were declared during this inspection period and are discussed below. The unit was shutdown on March 29 following the discovery of a reactor vessel pressure boundary leak, also discussed below.

1.2.1 On February 15 operations support personnel identified that unsampled diesel fuel oil was added to the Division I and II emergency diesel generator (EDG) storage tanks. This was contrary to a Technical Specification (TS) 3.8.1.1 which states, that each of the diesel generators shall be demonstrated operable by sampling new fuel oil in accordance with ASTM D 4057-81 before addition to the storage tanks. The EDGs were immediately declared technically inoperable. Coincidentally, the Division III EDG was inoperable for planned maintenance. As a result, a unit shutdown was commenced per TS 3.0.3 and an Unusual Event was declared in accordance with the Site Emergency Plan.

A fuel oil sample was drawn and satisfactory results were obtained within a few hours. The unit shutdown was terminated with the reactor at approximately 94 percent of rated thermal power, and the unit was subsequently returned to full power. Niagara Mohawk made the proper 10 CFR 50.72 notifications to the NRC.

Niagara Mohawk concluded that one root cause of the event was that the operations support person responsible for procuring the fuel oil failed to generate a material issue document. If used, this administrative process would have helped to alert the operations staff that a hold tag was placed on the oil truck delivery valve because the tank had not been sampled. Also, the control room operators incorrectly negotiated the delivery and addition of the fuel oil directly with the truck driver vice through the operations support staff. In addition, the truck driver erroneously removed the hold tag from the delivery valve without questioning its purpose prior to adding the fuel oil to the storage tanks.

The root causes for this event were poor communications, a lack of training and an unclear definition of duties and responsibilities for fuel oil deliveries. The inspector witnessed some of the training given to operations personnel involved with this type evolution and noted that an operations department instruction was written that clearly defines roles and responsibilities for the handling of fuel oil for the EDGs and clarifies the necessary communications needed to ensure proper control of fuel oil. An accountability meeting was conducted and a lessons learned transmittal was issued to all site personnel. Other details of this event were documented in LER 91-02.

The safety significance of this event was minimal, in that the samples subsequently drawn from the storage tanks were satisfactory. The inspector considers the identification of this sampling oversight by the operations support staff to be good. The corrective actions by the operations staff were comprehensive. In addition, the inspector determined that Niagara Mohawk was in



the process of submitting a TS amendment request which would have provided a 24-hour grace period to complete the fuel oil sampling surveillance and would have alleviated the necessity to conduct a TS forced shutdown. In accordance with the criteria in the NRC Enforcement Policy of 10 CFR Part 2, Appendix C, Section V.G, this is a non-cited violation. (50-410/91-06-01)

1.2.2 An inadvertent actuation of secondary containment isolation and initiation of standby gas treatment occurred on March 26 during the performance of special test N2-STP-2, Emergency Recirculation Ventilation System Unit Coolers 2HVR*VC413 A/B Performance Evaluation Test. The test was aborted and an appropriate notification per 10 CFR 50.72 was made to the NRC. After preliminary discussions with the control room operators and a review of the test procedure, the inspector determined the primary cause of the inadvertent safety system actuation was procedural inadequacies. The test did not properly consider the plant impact of the system markup and coincident installation of the test equipment.

Subsequent inspector interviews with operators on duty when this event occurred determined that they were not aware of the status of the special test and had not received a formal pretest briefing as prescribed in administrative procedure 6.5, Control of Testing. Further, test N2-STP-2 was written such that a pretest briefing should be performed (per step 7.1.2) prior to installing test equipment and running the test. Step 7.1.2 was signed off as having been performed. Followup discussions with the responsible systems engineer (test director) and operations personnel identified that the pretest briefings were given, but were inadequate.

Niagara Mohawk management reviewed the inspector's observations and concerns and plans to conduct an accountability meeting to further understand the root causes of this event and to develop appropriate corrective actions. The inspector noted that pre-test briefings for special tests performed prior to this test were generally good.

1.2.3 On March 30 a TS forced shutdown was required and an Unusual Event (UE) was declared after the identification of reactor coolant pressure boundary (RCPB) leakage in the drywell. A drywell entry to investigate the source of increasing unidentified drywell floor drain leakage led to this discovery.

Days prior to this discovery, operators had determined that the unidentified drywell floor drain leak rate was increasing approximately 0.5 gpm per day and on March 28 was at 1.7 gpm. On March 29 the leak rate jumped to 2.75 gpm and plant management decided to decrease power to allow for a drywell entry to investigate the source of leakage. A power reduction was commenced late on March 29 and by 1:35 p.m. March 30 reactor power was less than 15% and the drywell was deinerted for personnel entry. Upon entry to the drywell, the source was identified as a weld crack on a flex hose connection for the sample line on the A recirculation loop riser piping. The leak was



determined to be unisolable RCPB leakage and TS 3.4.3.2 was entered, which required the plant to be in hot shutdown in 12 hours and cold shutdown the following 24 hours. The UE was also declared at this time. An orderly reactor shutdown was performed and subsequent to the end of the inspection period a repair plan was being formulated. The inspector concluded that Niagara Mohawk took timely and appropriate action to monitor and identify the source of drywell leakage.

1.2.4 During plant tours, the inspectors identified poor general area and radiological housekeeping practices, particularly in the standby liquid control (SLC) skid area, the Division II service water bay, the south reactor building auxiliary bay and the condensate pump pit. The inspectors discussed the specific observations with the station shift supervisors and subsequently noted that appropriate actions were taken for the particular concerns. Overall housekeeping and the effectiveness of recent zone inspection tours was discussed with the plant manager. The plant manager indicated a review of the overall adequacy of current housekeeping practices and available resources was in progress.

1.2.5 On March 18 an automatic reactor water cleanup (RWCU) system isolation occurred as a result of a failed temperature switch. The temperature switch is part of the system's non-regenerative heat exchanger high temperature protection system. Control room operators made a four-hour, non-emergency 10 CFR 50.72 notification after the isolation occurred. Following further Niagara Mohawk staff review, the 50.72 call was retracted, in that the RWCU isolation was not an engineered safety feature actuation. The inspector concurred with the final notification determination and considered the initial notification unnecessary, but in keeping with a generally conservative Niagara Mohawk policy on reporting station events.

2.0 MAINTENANCE AND SURVEILLANCE OBSERVATIONS

2.1 Unit 1

As discussed in the previous resident staff inspection report (50-220/91-02), the unit mid-cycle outage started three weeks earlier than planned due to problems with the turbine mechanical hydraulic control (MHC) system. Despite the early start, most work packages and equipment needed for the outage were already staged and the outage organization quickly transitioned and mobilized the resources to support the outage. Some of the activities observed during the outage included:

- Local leak rate testing of main steam isolation valve 01-01.
- N1-EPM-GEN-RISO; 4.16 KV breaker/motor inspection, on the 112 containment spray raw water pump.



- N1-IPM-079-C002, emergency diesel generator temperature instruments calibration check.
- Various preventive maintenance activities on the 102 and 103 EDGs.
- Replacement of the reactor recirculation pump (RRP) number 14 cooling water jacket.
- N1-ISI-LK-405, leakage test of a feedwater flow element.
- Replacement of reactor water cleanup system filter septums.

Other activities were observed during routine plant inspections. For the activities listed above, no performance or procedural concerns were identified. The RRP 14 cooler replacement job, which involved extensive work in the drywell, was observed to be well coordinated and performed. This job was completed quickly, efficiently and well within its budgeted ALARA goal. Radiological aspects of the RRP job, as well as, the filter septum replacement job were considered satisfactory. The inspectors also noted the presence of first line supervisors and managers observing work in the field on dayshift and backshifts. Overall, the outage appeared to have been well supported and coordinated. As a result, the unit was returned to power operations ahead of schedule and without any noteworthy safety concerns.

2.2 Unit 2

2.2.1 The following maintenance activities were observed:

- Electrical preventive maintenance procedure N2-EPM-GEN-R520 on the motor operator for valve SWP*MOV17. Good procedural adherence was noted and the technicians were observed to be knowledgeable and experienced with the maintenance task.
- Corrective maintenance on the Division I emergency diesel generator (EDG) lube oil line per work request (WR) 191503. This maintenance task was also observed by a quality control technician. No concerns were identified by the inspector.
- Preventive maintenance on the Division I EDG per WR 179306 to check torque on the turbocharger support bolts. This was in response to a vendor recommendation and tracked by problem report 7956. The inspector verified the torque wrench used was in calibration and was of the proper range. No concerns were identified.



2.2.2 The performance of procedure N2-OSP-SLS-Q001, Standby Liquid Control (SLC) Pump, Check Valve and Relief Valve Test, was observed on the B train by the inspector. While increasing pump discharge pressure, the SLC pump discharge relief valve lifted before rated test pressure and flow was achieved. The test was secured and an emergency work request was initiated to reset the relief valve.

The inspector noted that the test pressure was read from the installed SLC discharge pressure gage (0-1800 PSIG gage with 20 PSIG increments). The reference pressure range specified in the surveillance procedure was 1222 to 1272 PSIG. The inspector was concerned that the 1222 to 1272 PSIG band did not reflect a readable increment of the gage. A test gage with smaller increments may better be suited for this test. Further inspector review determined that in the previous quarterly test, the recorded reference pressure reading was 1222 PSIG as read on the installed gage. The inspector questioned the validity of this reading, given that the standard industry practice is to read and record values of no less than one half the gage increment.

Niagara Mohawk agreed with the inspector's concern and revised the test procedure to install a precision test pressure gage with two pound increments. Further, guidance was provided to all operators stating that, in general, gages and instrumentation should only be read and recorded to one half of the smallest increment. Niagara Mohawk also performed a review of other tests that utilize installed gages and instruments to ensure compatibility. The inspector concluded that the use of a gage for surveillance testing without a precise enough increment for the prescribed test was a poor practice. However, Niagara Mohawk took appropriate action to address this matter.

3.0 SECURITY AND SAFEGUARDS

3.1 (Closed) Unresolved item 50-220/88-20-02: Concern with Security Plan relating to vital equipment access control in the screen house. This item was discussed with the NRC headquarters security staff. The NRC plans to address this item on a generic backfit basis with respect to older vintage nuclear facilities and the current 10 CFR Part 73, physical security regulations. This item is administratively closed.

3.2 On Saturday, February 23 a licensee operator made an ENS call to report that a supervisor assigned at the Nine Mile Point Nuclear Station tested positive for alcohol consumption as a result of a random test administered that day. The individual's blood alcohol content was greater than the limit of 0.04% established by the NRC in 10 CFR 26.24(g) and incorporated in Niagara Mohawk's Fitness For Duty (FFD) program. Per the licensee's procedures, the individual's site access was immediately suspended.

On February 25 the individual met with his site supervisor, as well as personnel from the FFD program, the Employees Assistance Program (EAP) and site security. As a result of these meetings, disciplinary action was initiated and the individual accepted referral to the EAP.



As the individual's job involved review of safety-related work, plant management initiated a review of the individual's past work. No concerns were identified. The inspector concluded this event was appropriately handled by Niagara Mohawk.

4.0 ENGINEERING AND TECHNICAL SUPPORT

4.1 On February 15 the NRC issued Information Notice 91-12, Potential Loss of Net positive Suction Head (NPSH) of Standby Liquid Control System Pumps. Prior to the issuance of the notice, plant management was aware of this issue which was discovered to be a concern at several domestic boiling water reactor sites. In response to these concerns and to the notice, the Unit 1 plant manager directed that the engineering staff evaluate the liquid poison system for similar susceptibilities and to develop verification testing, if necessary.

Engineering performed an evaluation of the system, and although calculations demonstrated that the NPSH concern probably did not exist, a special test was written to conclusively prove this. During the mid-cycle outage, Special Test Procedure N1-STP-17, Liquid Poison NPSH Verification, was prepared and performed satisfactorily. The test demonstrated that the NPSH concern addressed by the notice does not exist at Unit 1.

At Unit 2, the technical support staff reviewed the preoperational testing procedures and results conducted in the 1986 time period. The technical staff concluded, based upon a comprehensive preoperational test which included NPSH field verifications, that no additional testing was needed for the Unit 2 system and that the system was not vulnerable to the recently identified NPSH concerns.

The inspector concluded that the handling of this issue by station management was aggressive and proactive in responding to this potential industry concern.

4.2 On March 21 Niagara Mohawk completed testing on the standby gas treatment system (GTS) inlet and outlet dampers and identified an undesirable design characteristic. The design feature causes the valve to stroke closed and then open after the recharge cycle on the valve operator hydraulic accumulator. This automatic feature only functions while the damper is open. Consideration was given by Niagara Mohawk as to the operability impact this design feature had, particularly with respect to reactor building drawdown in an accident scenario. Niagara Mohawk concluded there was no adverse impact and that the design feature was unnecessary. A modification was issued and the design feature was removed from the damper operating mechanism. The inspector verified that the appropriate controls were placed on the GTS while this modification was performed. The inspector concluded that Niagara Mohawk adequately resolved this GTS damper design concern.



5.0 SAFETY ASSESSMENT AND QUALITY VERIFICATION

5.1 Accountability Meeting Review

During this inspection period, the inspectors reviewed the results of an accountability meeting held to discuss a problem identified with the implementation of the Unit 2 erosion-corrosion program. The specific issue involved the failure of the nuclear quality assurance (QA) personnel performing ultrasonic testing (UT) of wall thickness examinations to perform UT instrument checks in accordance with the governing procedure (NDEP 6.16, Revisions 1). The procedural non-compliance was identified by the engineers responsible for reviewing the UT examination results. The accountability meeting was conducted primarily to resolve differences between the QA and engineering staffs with respect to their interpretation of the procedural requirements and to identify the root causes and lessons learned from this issue.

In reviewing the specifics of this issue and the results of the accountability meeting, the inspector concluded that, in spite of the effectiveness of the meeting in drawing out many of the root causes and lessons learned from this concern, the issue and its respective corrective actions were not entered into any of the formal quality programs for identification and resolution of problems/concerns. Rather, this issue was managed by meeting minutes and memoranda between the involved parties. Accordingly, it was not clearly evident that all of the issues raised by this concern would be appropriately tracked and effectively resolved, including any reviews by onsite or offsite safety committees.

The inspector noted that the accountability meetings are beneficial in assisting the problem identification and resolution process; however, it was not apparent that these meetings directly interfaced with the quality program processes to ensure formal tracking, resolution and verification of the effectiveness of the ensuing corrective actions. This lack of interface between the accountability meetings and the quality program was considered a weakness. The inspector discussed his observations with senior station management who stated the concern would be appropriately entered into a formal tracking and resolution system.

5.2 Review of Licensee Event Reports (LER) and Special Reports

5.2.1 Unit 1

The following LERs were reviewed and found satisfactory:

- LER 89-12, Supplement 1, Reactor scrams and reactor building emergency ventilation initiations due to design deficiency.
- LER 91-01, Reactor scram due to spurious non-coincident logic trip signal.



- LER 91-02, Turbine control valve linkage sticking resulting in a reactor scram and emergency ventilation system initiation.
- LER 91-03, Reactor scrams due to spurious trips of neutron monitors caused by noise and inadequate procedural controls.
- Special Report, dated February 11 (file code NMP77332), concerning inoperability of the 11 and 12 containment hydrogen monitoring systems was reviewed and found satisfactory. The inspector noted that these detectors are routinely declared inoperable for various technical reasons, thus necessitating alternate manual sampling methods. In discussions with the systems engineer, the inspector determined that replacement of these units was being considered, if and when more reliable units can be found.

5.2.2 Unit 2

The following LERs were reviewed and found satisfactory:

- LER 90-19, Rod block trip operability violation caused by inadequate work practices and inadequate written communications. (reference inspection report 50-410/91-02, non-cited violation 91-02-01)
- LER 90-20, Reactor building isolation caused by procedural deficiency.
- LER 90-21, Pump and valve inservice testing program deficiencies.
- LER 90-22, Reactor building isolation and start of standby gas treatment system caused by failed radiation detector.
- LER 90-26, Technical Specification violation - Instrumentation not environmentally qualified due to personnel error.

The specifics of this LER were discussed with Niagara Mohawk representatives with respect to the overall safety significance of the lack of environmental qualification (EQ) of the 18 resistance temperature detectors (RTDs) which are part of the containment atmosphere monitoring system. After further discussions and consultation with the NRC Region I and Headquarters staffs, the inspector concluded that this EQ violation was of minor safety significance. The inspector determined that Niagara Mohawk took prompt



corrective action to environmentally seal the identified RTDs, to ensure similar EQ oversights were not made in other EQ components and that current programs should prevent such oversights in the future. Furthermore, in that this EQ violation was identified and promptly reported to the NRC, in accordance with the NRC Enforcement Policy, stated in 10 CFR Part 2, Appendix C, section V.G., this is a non-cited violation. (50-410/91-06-02)

6.0 OTHER NRC ACTIVITIES

6.1 Niagara Mohawk Requested Progress Review Meeting

On February 25, 1991, Niagara Mohawk senior management met with the Regional Administrator and members of his staff in the Region I office. Niagara Mohawk discussed a variety of topics (see Attachment A - Meeting Agenda) and answered questions from the NRC staff. Of principle interest to the Regional Administrator was the new Niagara Mohawk performance incentive (MERIT) program entered into by agreement with the New York State Public Service Commission. A list of attendees is included as Attachment B.

6.2 Management/Exit Meetings conducted by Region Based inspectors during this inspection period:

<u>Date</u>	<u>Subject</u>	<u>Report No.</u>	<u>Inspector</u>
2/27/91	Management discussions and facility tour	N/A	Hehl
3/8/91	Inservice Inspection Program Review	91-07/91-07	McBrearty
3/15/91	Radiation Protection and Transportation	91-08/91-08	Furia

7.0 INSPECTION EXIT MEETING

At periodic intervals and at the conclusion of the inspection, meetings were held with senior station management to discuss the scope and findings of this inspection. Based on the NRC Region I review of this report and discussions held with Niagara Mohawk representatives, it was determined that this report does not contain safeguards or proprietary information.



NRC MEETING
WITH
THOMAS T. MARTIN

FEBRUARY 25, 1991

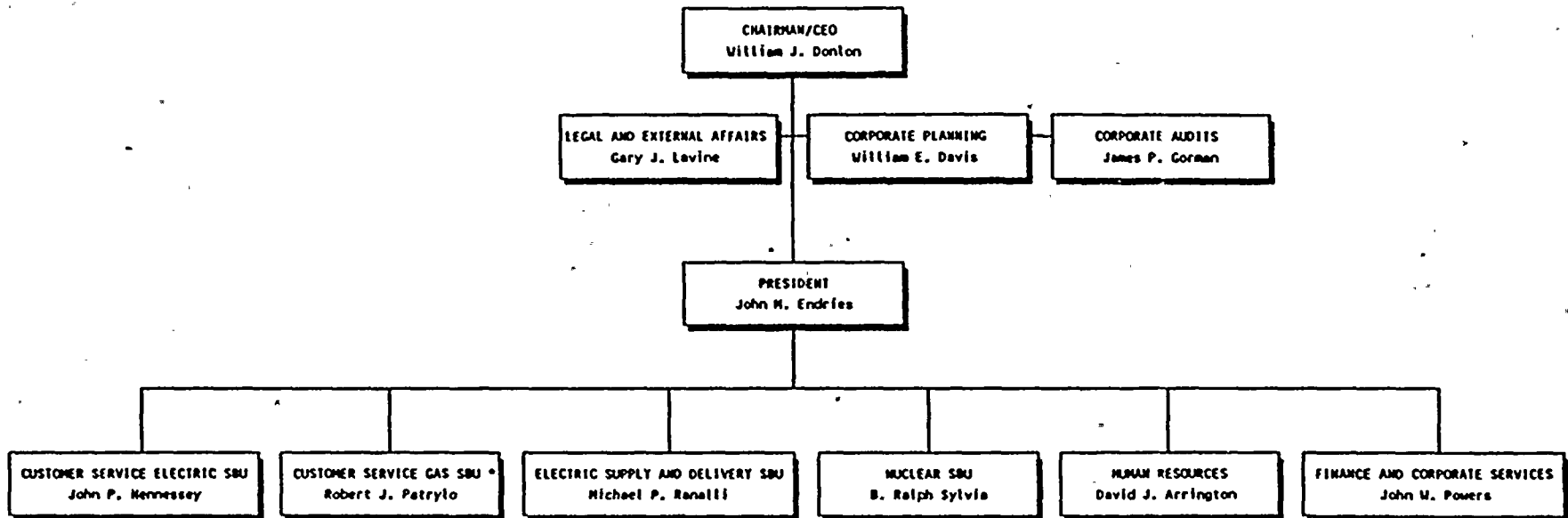


AGENDA

NRC MEETING - FEBRUARY 25, 1991

- | | | |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| I. | INTRODUCTION & OPENING COMMENTS | B. R. SYLVIA |
| II. | ROOT CAUSES OF PROBLEMS - NIP | B. R. SYLVIA |
| | <ul style="list-style-type: none">• Planning and Goal Setting• Problem Solving• Culture• Standards of Performance• Teamwork | |
| III. | BUSINESS PLANS | B. R. SYLVIA |
| IV. | PSC INCENTIVE PROGRAM | B. R. SYLVIA |
| V. | INTERNAL SALP TYPE ASSESSMENT
(ISTA) | J. A. PERRY |
| VI. | DEVIATION/EVENT REPORT (DER)
PROGRAM | J. A. PERRY |
| VII. | PERFORMANCE INDICATORS | J. F. FIRLIT |
| VIII. | ACCOUNTABILITY MEETINGS | J. F. FIRLIT |
| IX. | CONCLUSIONS/SUMMARY | B. R. SYLVIA |







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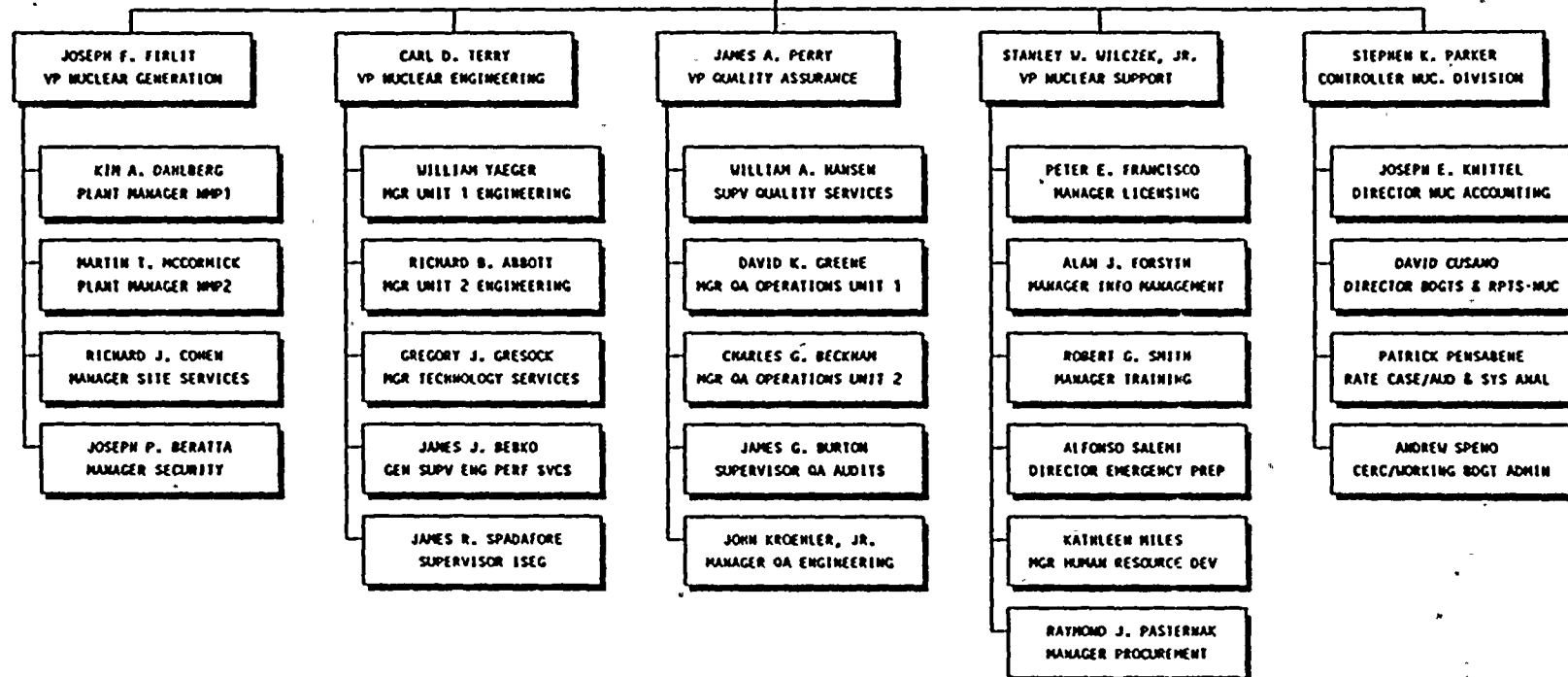
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B. RALPH SYLVIA
EXECUTIVE VP NUCLEAR

BEVERLY RIPKA
EXECUTIVE SECRETARY

ROBERT BURICH
MUC COMM & PUB AFFAIRS

LINDA A. ZIMMERMAN
MGR EXECUTIVE STAFF





PSC INCENTIVE PROGRAM



Sheet 1 of 2

STATE OF NEW YORK DEPARTMENT OF PUBLIC SERVICE

THREE EMPIRE STATE PLAZA, ALBANY, NY 12223

PUBLIC SERVICE COMMISSION

PETER A. BRADFORD
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WILLIAM J. COWAN
General Counsel

JOHN J. KELLIHER
Secretary

January 8, 1991

Mr. William Donlon
Niagara Mohawk Power Corporation
300 Erie Boulevard West
Syracuse, New York 13202

Dear Mr. Donlon:

In my December 27, 1990 letter to you regarding the MERIT criteria, I asked for comments by January 4. Almost all comments were favorable. Consequently, with only two minor revisions to the December 27 document, you will find attached the final MERIT criteria as proposed by staff for the period ending May 31, 1991.

The first revision, on page 1 of the criteria, makes the arrears language consistent with company operating statistics by replacing "January 1, 1991 to May 31, 1991" with "the preceding 14 month period." The second change, on the top of page 6, clarifies the language by replacing "the practice of law in New York by attorneys admitted in other states" with "questions regarding New York practice." If you have any questions regarding these changes, please contact Joe Parella.

Any party wishing to file formal comments should do so by January 16, 1991. Please file your comments with Secretary Kelliher and the members of the steering committee. If there is disagreement, staff expects the Commission to consider the criteria at its session of January 30.

Thank you once again for your cooperation in the development of the MERIT criteria.

Sincerely,


Ed Murphy
Core Group Director

cc: All Members of the
Steering Committee
Lisa Rosenblum
Frank Herbert
Les Stuzin
Jeff Stockholm



NEAR TERM SELF-ASSESSMENT PROGRESS GOALS

For the near term (i.e., through May 31, 1991), the company's equity incentive mechanism awards (i.e., MERIT-measured equity return incentive term) will be linked to the company's performance in the following areas, and be calculated according to the sliding scales set forth in Attachment III. The proceeding to institute the multi-year rate plan will establish the MERIT funds that will be available in each of the periods and the procedures to be followed to determine the level of the incentive the company will have the opportunity to earn.

PSC COMPLAINTS - (20%)

In the context of an overall effort to reduce customer dissatisfaction in the near-term and increase customer satisfaction in the long-term resulting from the self-assessment's Meeting Customer Needs Initiative, the company will target a seven percent reduction in PSC complaints for the period of January 1, 1991 through May 31, 1991 as compared to the same period of the previous year. The company must achieve this goal while maintaining its commitment to its collection objectives as measured by total 90-day arrears. On May 31, 1991, the company must achieve a total 90-day arrears, divided by the average daily revenue for the preceding 14 month period, of no greater than 9.4. ^{1/}

^{1/} For the period ended May 31, 1990, the company's total 90 days of arrears was equal to 9.4 times the average daily revenue for the preceding 14 month period.



LAYERS OF MANAGEMENT - (20%)

The electric customer service organization has been defined as the pre-November 1, 1990 organization of the Regional Transmission and Distribution Department. This department is currently the primary provider of electric customer service across Niagara Mohawk's eight regions. Removing a layer of management streamlines the organization by flattening it. This will have the effect of broadening spans of control, moving decision making by placing decision making closer to the frontline and customer, and improving overall communications and process efficiency.

By May 31, 1991, the company must reduce the electric customer service field organization^{1/} by one layer of management as compared to the number of layers that existed on October 31, 1990. The reference point for the layers of management goal has been calculated using the most recent corporate organization chart, dated May 1, 1990. The number of layers on average for the eight regional electric customer service organizations is 8.875. This was determined by counting the number of management levels from the CEO to the lowest first level of supervision in each of the eight regions and then calculating the average across all eight (see Attachment 1).

^{1/} At least one layer of management has already been removed from both the Fossil and Nuclear organizations. The Central Region reorganization pilot began November 1, 1990.



AVA Savings (20+)

Complete the implementation of AVA savings ideas with an expected annualized gross value of \$37 million^{1/} by May 31, 1991 including all ideas implemented from the start of the AVA process. The implementation of savings ideas with estimated annualized savings, in excess of \$250,000 will be considered completed for this goal only if the total start-up costs for the idea does not exceed three times the annualized savings projected in the AVA process.

NUCLEAR - (20+)

1. Net Electric Generation

a. Nine Mile I

For the period of January 1, 1991 through May 31, 1991, the Nine Mile I generation goal is 1,265,000 MWhrs on a net basis.

b. Nine Mile II

For the period of January 1, 1991 through May 31, 1991, the Nine Mile II generation goal is 2,868,000 MWhrs on a net basis.

^{1/} This figure does not include the portion which accrues to cotenants of Nine Mile II.



2. Reduction of Corrective Maintenance Work
Request/Power Block

By May 31, 1991, the company must reduce the number of non-outage corrective maintenance power block work requests for Nine Mile II by 300 as compared to those that exist at the end of the day the breaker is closed to bring the unit back on line from its current refueling outage. A minimum acceptable target reduction of 200 has been set.

3. Nine Mile I Outage Management

- a. Outage Duration - 56 days.
- b. Cumulative Radiation Exposure - 125 manRem
- c. Mid-Cycle Outage Work Packages - By February 1, 1991, the company will complete preparation of all work packages for the mid-cycle outage as defined by the outage scope identified as of December 1, 1990.

OPEN ISSUES REPORT - (20%)

The issues below are of importance to the parties. However, as the company's performance in these areas is more difficult to measure objectively at this time, the company will file a report on these topics in which it addresses the matters discussed below. The Steering Committee will make a recommendation to the Commission on the report and the level of any award it believes the company has earned.



- Environmental

The company must establish a comprehensive corporate environmental policy. Its comprehensiveness will be measured by, among other items, the degree to which it addresses the concerns of the various constituencies, the span of its influence on the company's operation, and the degree to which it is designed to anticipate future environmental requirements. In addition to the establishment of such a plan, the company must augment the overall managerial expertise of its Board of Directors by, among other things, adding an individual with environmental experience; appoint a vice-president for environmental affairs; and begin remediation of a manufactured gas plant site.

- Legal Support

The company must develop a comprehensive plan which will lead it to structure its in-house legal service organization to obtain an appropriate balance between the use of inside and outside counsel. This plan should investigate and schedule the adoption of changes in structure, staffing, and systems which will result in a measurable decrease on the reliance on outside counsel by mid-year 1993. The company will begin to reduce outside legal costs by accomplishing the following with Niagara Mohawk employees: monitoring Public Service Commission sessions and sunshine meetings and reviewing legal issues regarding competitive bidding, routine



computer and telephone leases, and questions regarding New York practice. In addition, the company will implement a uniform policy for outside counsels' travel and subsistence reimbursement designed to reduce those expenses.

- Accountability/Employee Empowerment

The company must demonstrate that it has taken steps to establish clear systems of accountability for all employees. This will include, but not be limited to, establishing clear lines of responsibility, developing and maintaining necessary skills, and ensuring a clear link between performance and compensation. Specifically, the company must establish a compensation plan for executives, officers and management that is linked to performance goals, and begin a new employee appraisal process based on performance and accountability.

The company must also take the necessary steps to push decision making down in the organization. To do so, the company will begin an employee empowerment program in the electric supply and delivery strategic business unit. The company will also prepare a plan for an employee empowerment pilot stemming from the Meeting Customer Needs Initiative which will focus on employee actions to raise customer satisfaction.



- Company Operational Statistics During Performance
of Self-Assessment

Through a summary review of performance indicators which have been reported to the DPS on a quarterly basis during the self-assessment process, the company must demonstrate that pursuit of the self-assessment process has not adversely impacted customer service, reliability, or cost. (See list of indicators, Attachment II).



Regional Operations Electric Customer Service Layers of Supervision	
Region	Layers (No.)
Frontier	10
Genesee	8
Southwest	8
Central	9
Mohawk Valley	8
Northern	9
Capital	10
Northeast	9
System Average	8.875

Source: NMPC Corporate Organization Charts, May 1, 1990



Current indicators provided to DPS staff to demonstrate that PACE is not affecting customer service, reliability or cost.

Customer Service

1. Percent of calls answered systemwide (monthly).
2. Percent of calls answered systemwide within 20 sec (monthly).
3. Percent of inside meters estimated systemwide (monthly).
4. Percent of outside meters estimated systemwide (monthly).
5. Net write-off per dollar of revenue (12 months ended).
6. Average days revenues outstanding in arrears (monthly).
7. System PSC complaints per 100,000 customers (monthly).

Gas

1. Third party damage leaks per mile of main (monthly YTD).
2. Third party damage leaks per 1000 services (monthly YTD).
3. Miles of cast iron and unprotected steel main replaced and percent of total main miles (monthly YTD).
4. Number of services replaced and percent of total services (monthly YTD).
5. Number of leaks on hand by class (monthly).
6. Customer service interruptions hours per service (monthly).
7. Percent of emergency calls responded to within 30 minutes: weekdays, evenings, weekends (monthly).
8. Number of open warning tags (monthly).

Fossil Generation

- *1. Megawatt hours generated by unit and station (monthly).
- *2. Heat rate by unit and station (monthly).
3. Equivalent availability by unit and station (monthly).
4. Operation and maintenance expense per kilowatt hour by station (12 months ended)

*These values are provided as part of the "Unit Performance Awareness Statistics" which calculates a performance index for each unit and station.

Transmission & Distribution

1. Customer interruption duration (monthly).
2. System interruption frequency (monthly, YTD).
3. Number of relay systems having preventive maintenance performed-115 KV and above (quarterly, YTD).
4. Number of relay systems having preventive maintenance performed-69 KV and below (quarterly, YTD).
5. Scheduled vs. completed distribution tree trimming (monthly, YTD).
6. Preventive maintenance completed vs. scheduled (monthly, YTD).
 - a. Hydro unit and dam inspections, crane inspections
 - b. Circuit breaker checks, inspections and overhauls
 - c. Diagnostic oil tests (quality, dissolved gas, dielectrics)
 - d. Load tap changer overhauls
 - e. Battery inspections



PROPOSED MERIT AWARD SCALE^{1/}

• PSC COMPLAINTS - (20%)

Increase in Complaints	-2%
Reduction of < 5%	0%
Reduction of ≥ 5% < 7%	10%
Reduction of ≥ 7% ≤ 10%	20%
Reduction of < 10%	22%

• LAYERS OF MANAGEMENT - (20%)

Increase in Layers	-2%
Reduction of < .5	0%
Reduction of ≥ .5 < 1	10%
Reduction of ≥ 1 ≤ 2	20%
Reduction of . 2	22%

• AVA GROSS SAVINGS - (20%)

Savings of < 10M	-2%
Savings of ≥ 10M < 27M	0%
Savings of ≥ 27M < 37M	% Award Applied on Linear Scale
Savings of ≥ 37M < 44M	20%
Savings of > 44M	22%

• NUCLEAR - (20%)

1. Net Electric Generation - (6.67%)

a. Unit No. 1 - (3.34%)

From 932,000 MWhrs to 1,265,000 MWhrs % Award Applied
on Linear Scale

b. Unit No. 2 - (3.34%)

From 2,113,000 MWhrs to 2,868,000 MWhrs % Award Applied
on Linear Scale

^{1/} Total award cannot exceed total merit pool for period, nor be less than zero.



2. Work Request - (6.67%)

Increase	- .567%
Reduction of \leq 200	0%
Reduction of $>$ 200 $<$ 300	% Award Applied on Linear Scale
Reduction of \geq 300 $<$ 400	6.67%
Reduction of \geq 400	7.34%

3. Unit No. 1 Mid-Cycle Outage Management - (6.66%)

a. Duration - (2.22%)

\geq 59 days	0%
58 days	25%
55-57 days	50%
54 days	75%
\leq 53 days	100%

b. Cumulative Radiation Exposure - (2.22%)

$>$ 200 manRem	- .222%
\leq 200 manRem $>$ 150 manRem	0%
\leq 150 manRem $>$ 125 manRem	% Award Applied on Linear Scale
\leq 125 manRem $>$ 100 manRem	2.22%
\leq 100 manRem	2.44%

c. Completion of Outage Work Packages - (2.22%)

100% Complete by 2/11/91	0%
100% Complete from 2/01/91 to 2/10/91	% Award Applied on Linear Scale
100% Complete by 2/01/91	2.22%

• OPEN ISSUES REPORT - (20%)

Scale not applicable.



UNIT 1 FUTURE RATE TREATMENT

- **61.26% - Capacity Factor
(Based Upon Peer Mark 1
Containments)**
- **October 1, 1990 to December 1994**

Deviation From Monthly Target CF	Sharing (ratepayer/shareholder)
> +21%	0/100
> +14% ≤ +21%	50/50
> +7% ≤ +14%	60/40
> 0 ≤ +7%	70/30
> -7% ≤ 0%	70/30
> -14% ≤ -7%	60/40
> -21% ≤ -14%	50/50
> -21%	100/0

- **Sharing Is Based Upon Differential Fuel
Costs Between Unit 1 And System
Available Replacement Power**



INTERNAL SALP TYPE ASSESSMENT

(ISTA)



INTERNAL SALP TYPE ASSESSMENT (ISTA)

OVERVIEW

- **FIRST INTERNAL EVALUATION OF NUCLEAR DIVISION PERFORMANCE USING SAME BASIC EVALUATION CRITERIA AND FUNCTIONAL AREAS USED IN THE NRC'S SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE (SALP).**
- **AREA PANELS REVIEW DATA, WITH OBSERVATIONS AND PERSONNEL INTERVIEWS.**
- **IDENTIFY STRENGTHS, OPPORTUNITIES FOR IMPROVEMENT AND RECOMMENDATIONS; DETERMINE RATINGS FOR EACH AREA.**
- **DRAFT REPORT PRESENTED TO NUCLEAR DIVISION SENIOR MANAGEMENT TEAM (JANUARY 5, 1991).**
- **THE SEMI-ANNUAL ISTA IS THE THIRD STEP OF THE NUCLEAR DIVISION'S THREE-STEP SELF-ASSESSMENT PROCESS; FIRST STEP, THE DAY-TO-DAY EVALUATIONS AND CORRECTIVE ACTIONS IDENTIFIED ON THE NEW DEVIATION/EVENT REPORTS; SECOND STEP, MONTHLY ASSESSMENTS OF PERFORMANCE TO THE NUCLEAR DIVISION'S BUSINESS PLANS.**



RATING SUMMARY BY YEAR

NIAGARA MOHAWK NUCLEAR DIVISION INTERNAL SALP TYPE ASSESSMENT (PERIOD EVALUATED MARCH 1, 1990 TO NOVEMBER 1, 1990)		ACTUAL SALP REPORTS FOR PERIODS	
<i>FUNCTIONAL AREAS</i>	<i>ISTA RATING</i>	<i>MARCH 1, 1989 TO FEBRUARY 28, 1990</i>	<i>MARCH 1, 1988 TO FEBRUARY 28, 1989</i>
OPERATIONS UNIT 1	2.2 IMPROVING	3	3
OPERATIONS UNIT 2	2.1	3	3
RADIOLOGICAL CONTROL/CHEMISTRY	2.1 IMPROVING	2	2
MAINTENANCE/SURVEILLANCE UNIT 1	2.2	3	3
MAINTENANCE/SURVEILLANCE UNIT 2	2.4. IMPROVING	3	3
EMERGENCY PREPAREDNESS	1.2	1	1
SECURITY/SAFEGUARDS	1.0	1	1
ENGINEERING/TECHNICAL SUPPORT	2.0	2	3
SAFETY ASSESSMENT/QUALITY	2.2 IMPROVING	3 IMPROVING	3 IMPROVING



PLANNED ACTIONS

- **IMPLEMENT THE DEVIATION/EVENT REPORT (DER) PROCESS.**
- **INCREASED EMPHASIS BY SENIOR MANAGEMENT ON REDUCTION OF PERSONNEL ERRORS AND PROCEDURAL DEFICIENCIES.**
- **IMPROVE RELIABILITY AND OPERABILITY OF RADIOLOGICAL MONITORING SYSTEMS**
- **CORRECT GAITRONICS PROBLEMS.**



ISTA UPDATE

PLANNED ACTIONS

- **PANEL MEETINGS/DRAFT FUNCTIONAL AREA REPORT UPDATES - WEEK OF MARCH 18.**
- **COMMITTEE CHAIRMAN AND AREA PANEL CHAIRMAN MEETING TO MODIFY DRAFT REPORT - WEEK OF MARCH 25.**
- **PRESENT FINAL DRAFT REPORT TO SENIOR MANAGEMENT - WEEK OF APRIL 1.**
- **MAKE FINAL CHANGES AND ISSUE FINAL REPORT - MID APRIL.**



DEVIATION/EVENT REPORT (DER)
PROGRAM



EVALUATION AND CORRECTIVE ACTION

Underlying Root Cause #2

The Process for Identifying and resolving issues before they became regulatory concerns was less than adequate in that there was no integrated or consistent process to identify, analyze, correct and assess problems in a timely way.

Corrective Action Objective #2.1

Develop an integrated and consistent problem solving process - - - -

NIP Item 2.1.12

Develop an integrated deficiency reporting system.

Developed Deficiency Event Report System (DER)

Purpose:

- Replace multiple reporting systems with a single Evaluation and Corrective Action System for recording, tracking and reporting deviations and commitments.
- Ensure each (Minor/Major) problem is reported from all sources.
- Promote:
 - Prompt identification of problems,
 - Consistent problem Documentation,
 - Prompt management action,
 - Prompt disposition/corrective action to improve performance and operations.
- Assure proper assignment of responsibility, and accountability for corrective action.
- Provide a single database for follow-up, evaluation, trending and self assessment.

Schedule

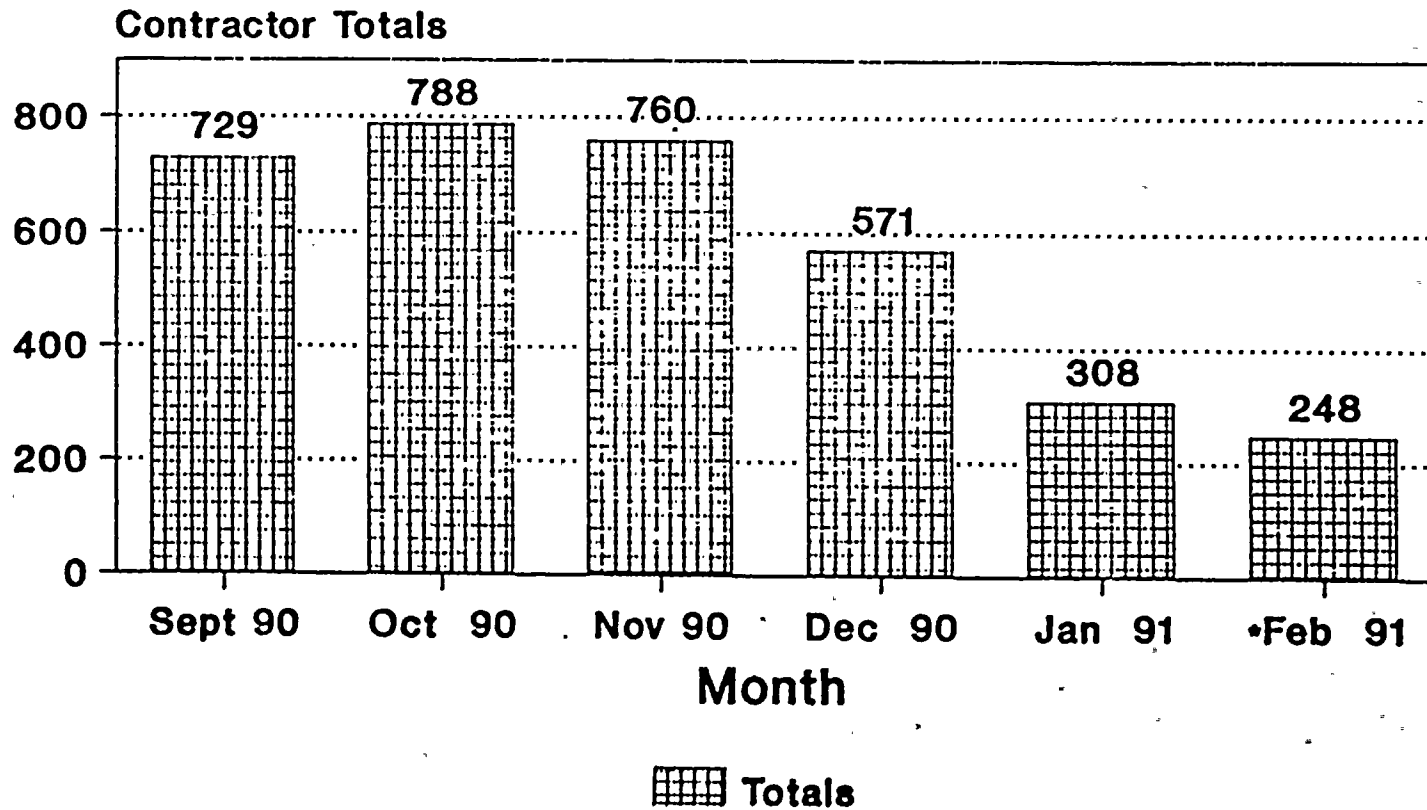
- The DER Program to be functioning 1st quarter of 1991.



PERFORMANCE INDICATORS



Nuclear Generation Contractor Staffing

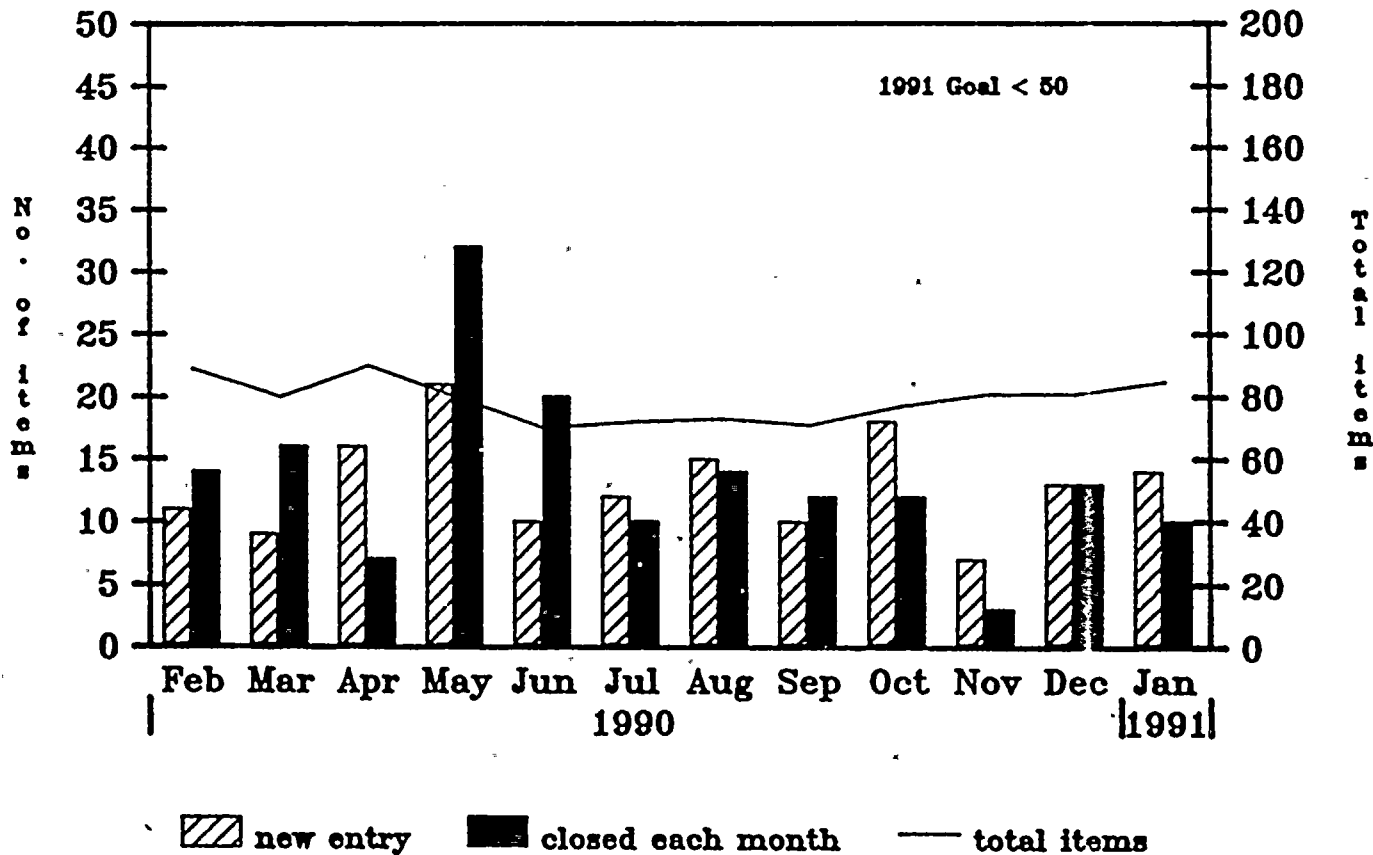


NRC Report Feb 91
• 96 Contractors in Engineering Budget



A4. NINE MILE POINT UNIT 1 OUTSTANDING OEA ITEMS

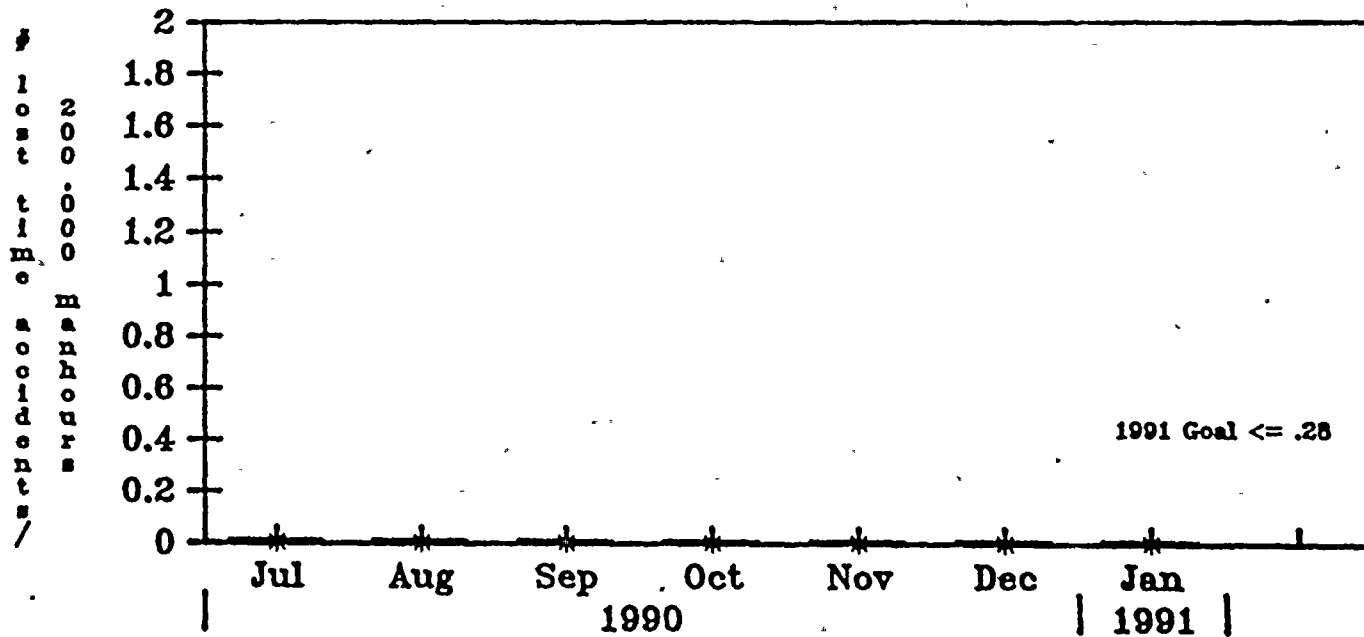
Includes ltr notices, scrs, sils, & soars



Data Accountability - Superintendent Technical Assessment



OPI 9. NINE MILE POINT UNIT 1 EMPLOYEE INJURY LOST TIME ACCIDENT RATE



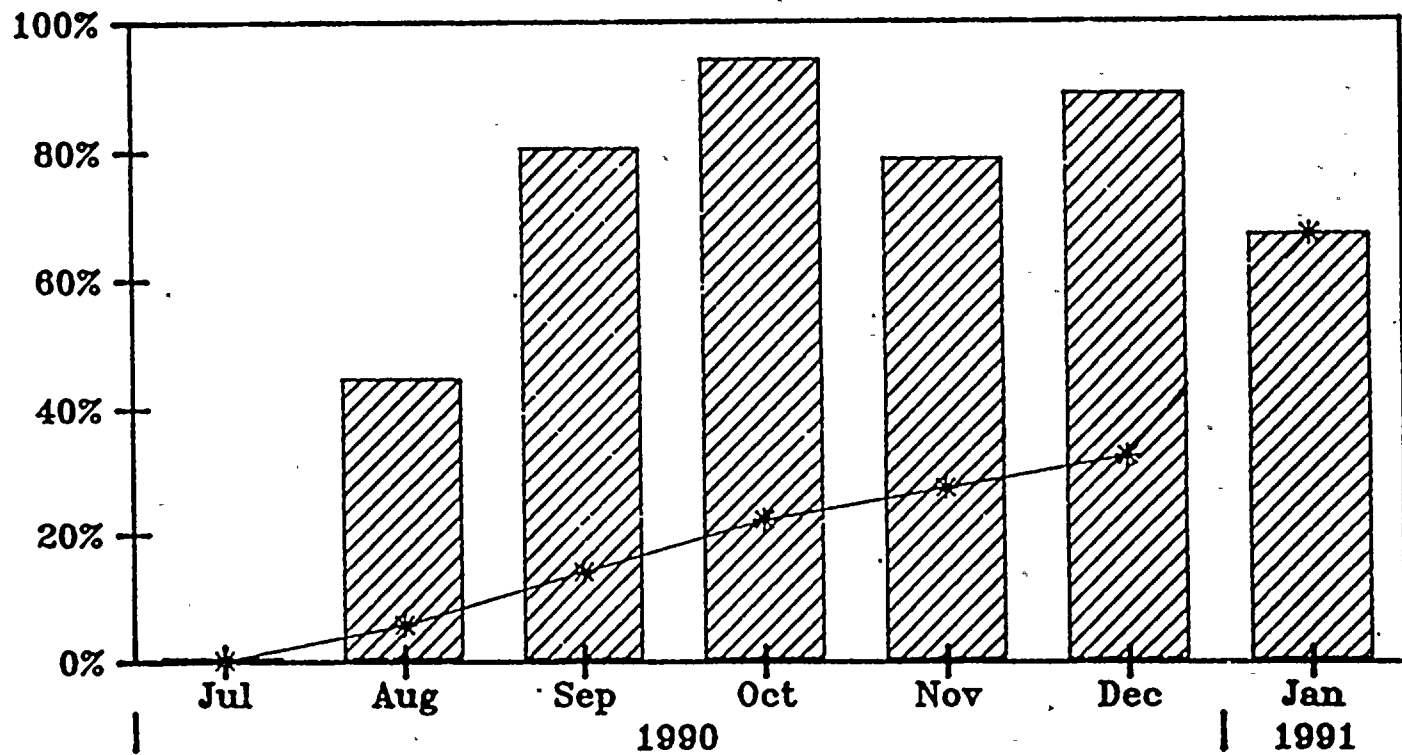
rate * ytd

7/89 - 6/90 INPO Industry Average = .80

Data Accountability - Safety Director



OPI 1. NINE MILE POINT UNIT 1 EQUIVALENT AVAILABILITY FACTOR



monthly

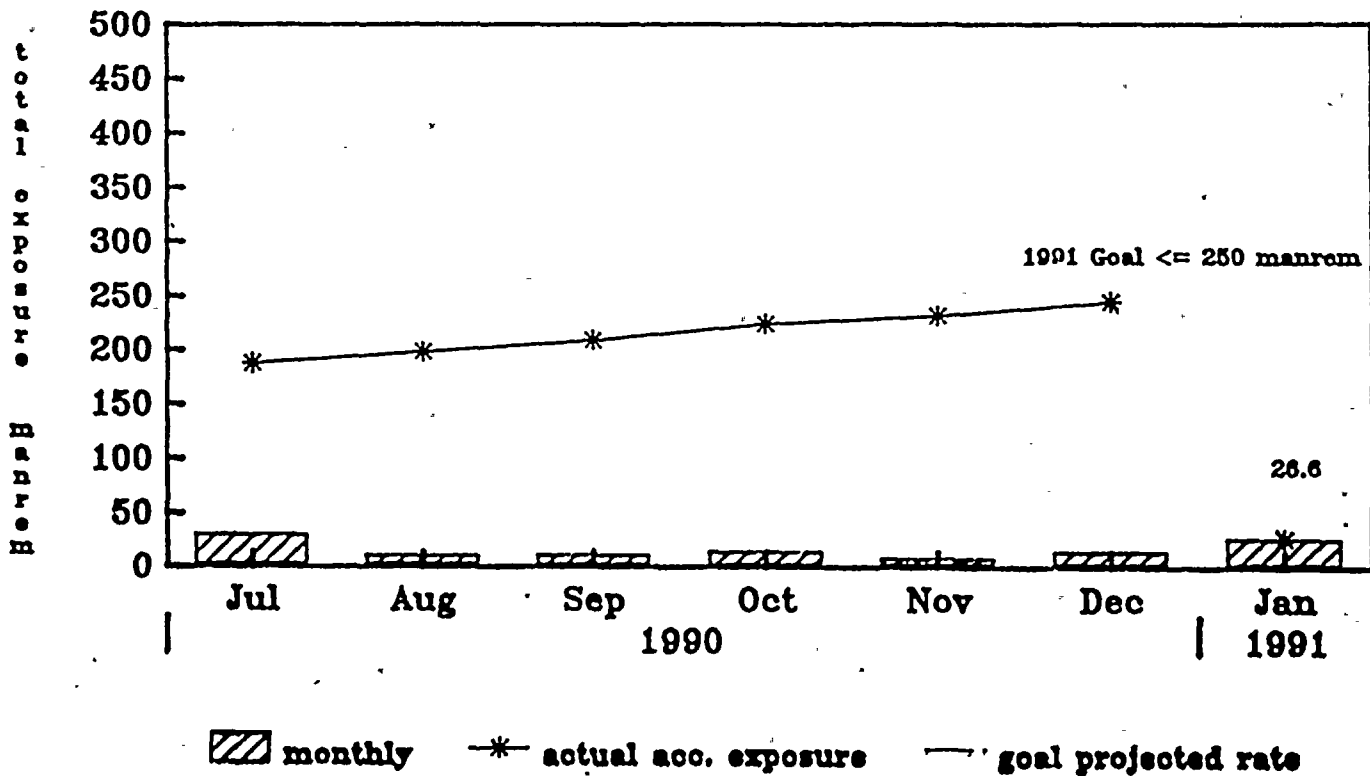
 * — ave yr to date

7/87 - 6/90 INPO Industry Average = 70.9 %

Data Accountability - Supervisor Reactor Analyst



OPI 7. NINE MILE UNIT 1 ACCUMULATED TOTAL EXPOSURE (Collective Radiation Exposure)



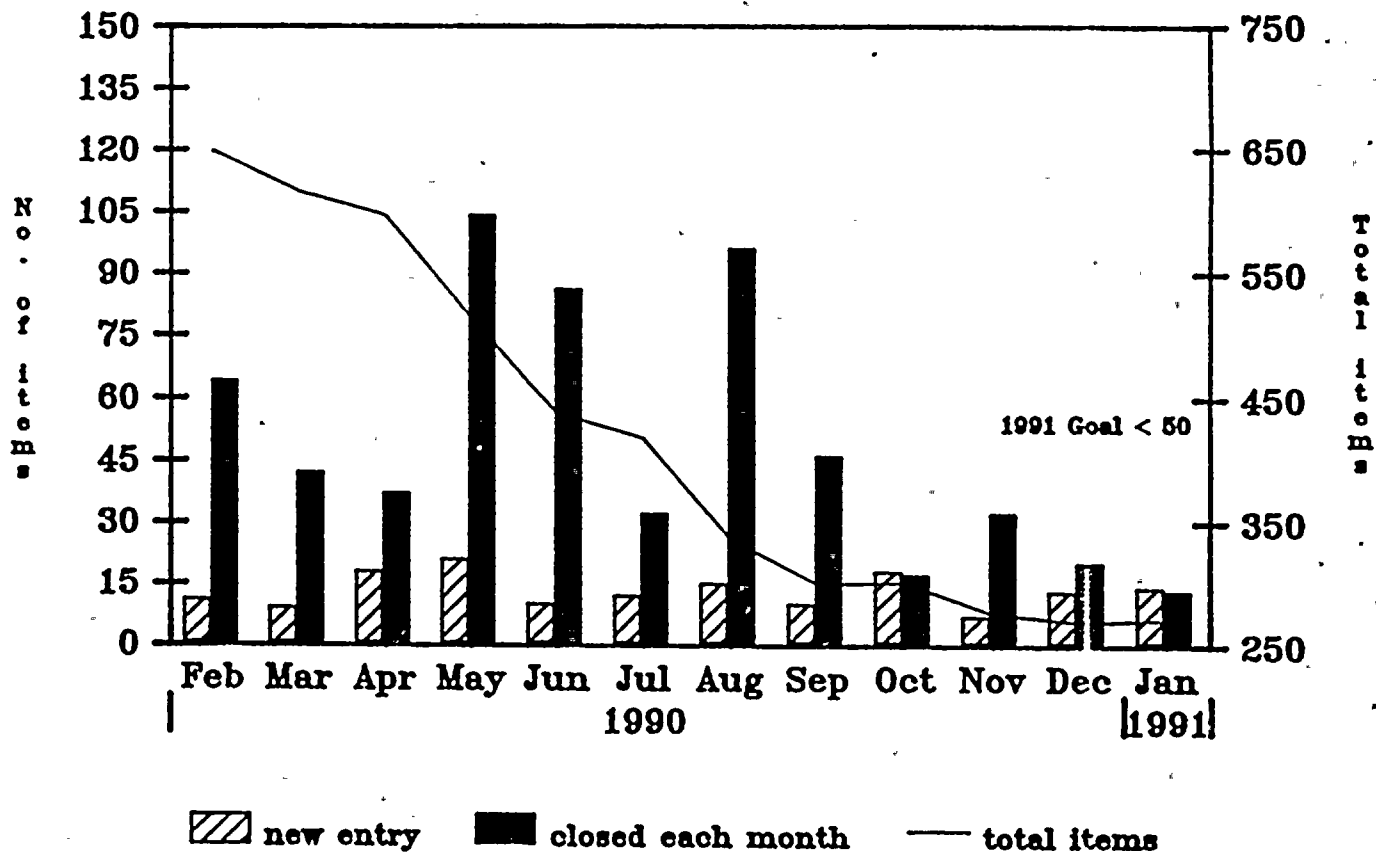
7/87 - 6/90 DFO Industry Average = 474 manrem

Data Accountability - ALARA Coordinator



A4. NINE MILE POINT UNIT 2 OUTSTANDING OEA ITEMS

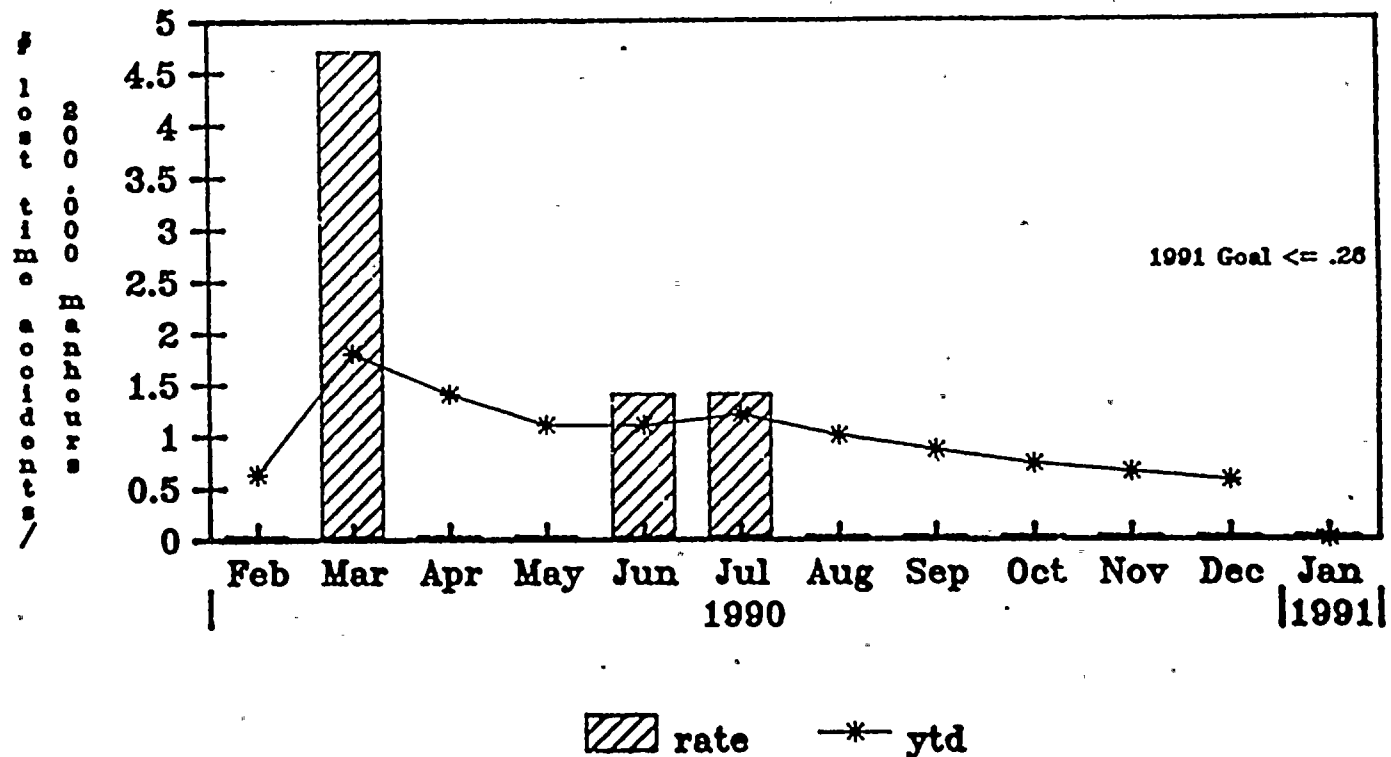
Includes i&e notices, perms, sils, & soers



Data Accountability - Superintendent Technical Assessment



OPI 9. NINE MILE POINT UNIT 2 EMPLOYEE INJURY LOST TIME ACCIDENT RATE

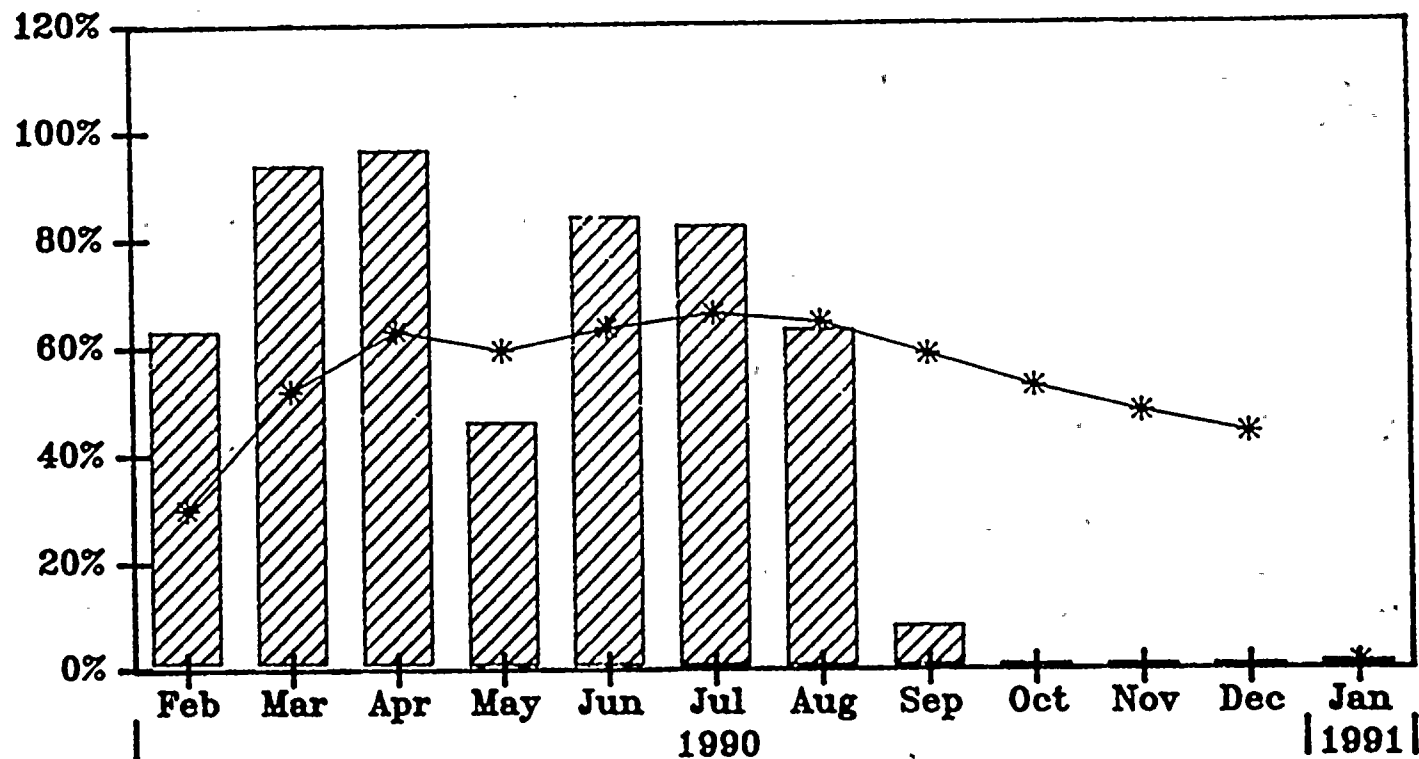


7/89 - 6/90 INPO Industry Average = .20

Data Accountability - Safety Director



OPI 1. NINE MILE POINT UNIT 2 EQUIVALENT AVAILABILITY FACTOR



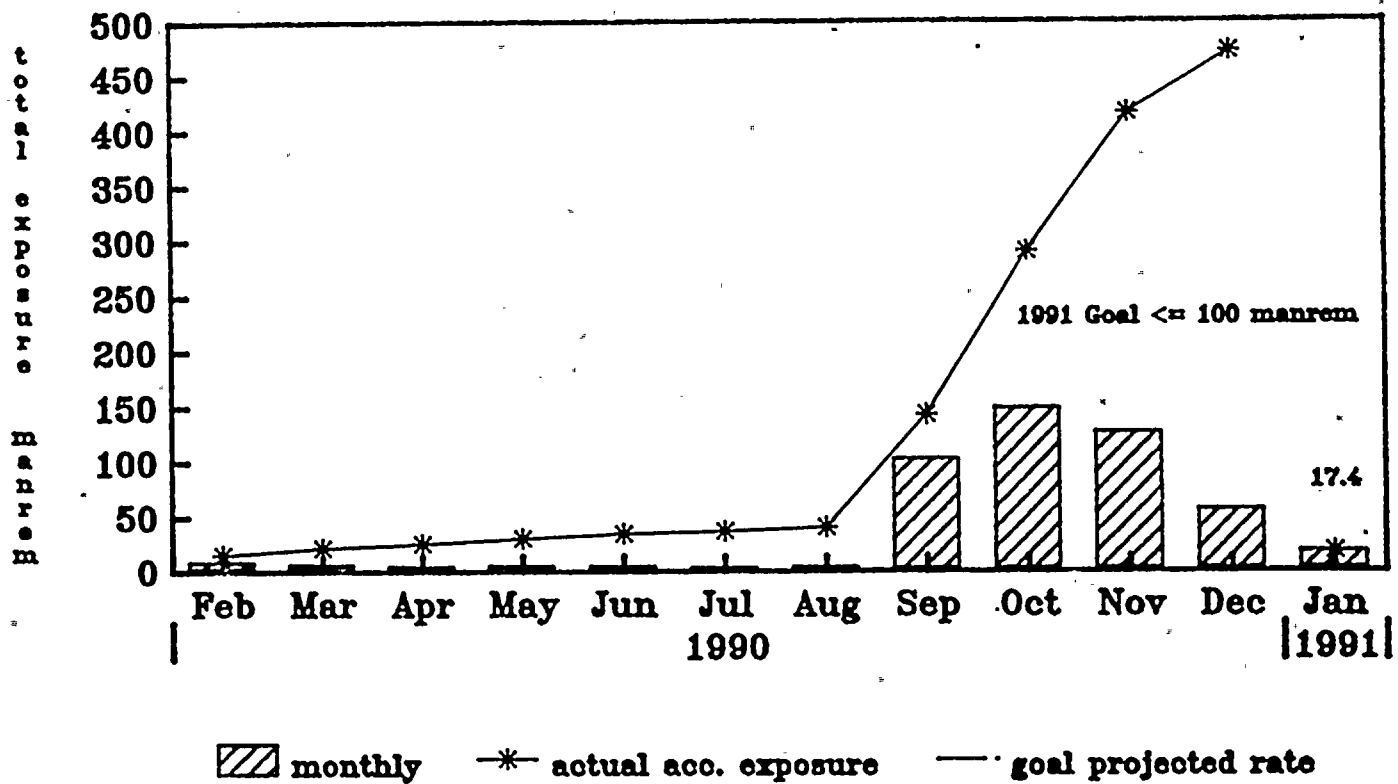
monthly * ave yr to date

7/87 - 6/90 INPO Industry Average = 69.0 %

Data Accountability - Manager Technical Support



OPI 7. NINE MILE UNIT 2 ACCUMULATED TOTAL EXPOSURE (Collective Radiation Exposure)



7/87 - 6/90 INPO Industry Average = 474 manrem

Data Accountability - ALARA Coordinator



ALARA Executive Actions

- Formal Communication of Management Expectations
- Development of ALARA Nuclear Division Directive
- Upgrade ALARA Portion of GET
- Executive Video for Safety Meetings and GET
- Emphasis on ALARA as a Way of Doing Business



ACCOUNTABILITY MEETINGS



ACCOUNTABILITY MEETINGS

THE PURPOSE IS TO RAISE INDIVIDUAL AND TEAM AWARENESS OF:

- PROCEDURAL COMPLIANCE AND ATTENTION TO DETAIL
- IMPACT OF THEIR PERFORMANCE
- PROBLEM IDENTIFICATION AND LESSONS LEARNED
- CORRECTIVE ACTIONS
- DISCIPLINARY ACTION WHEN APPROPRIATE



ACCOUNTABILITY MEETINGS

ATTENDEES SHALL INCLUDE:

- PERSONNEL INVOLVED
- INVESTIGATING TEAM MEMBERS
- FIRST LINE SUPERVISION OF GROUP INVOLVED
- FUNCTION MANAGER OF RESPECTIVE DEPARTMENT



ACCOUNTABILITY MEETINGS

- TOTAL MEETINGS HELD 21

- TOTAL SCHEDULED 8

- TOPICS AND ATTENDANCE RANGE FROM INDIVIDUAL ERRORS TO BREAKDOWNS IN PERFORMANCE IN MULTI-DISCIPLINE PROJECTS

- DISCIPLINARY ACTION IS TAKEN IN ABOUT 25% OF CASES TO DATE

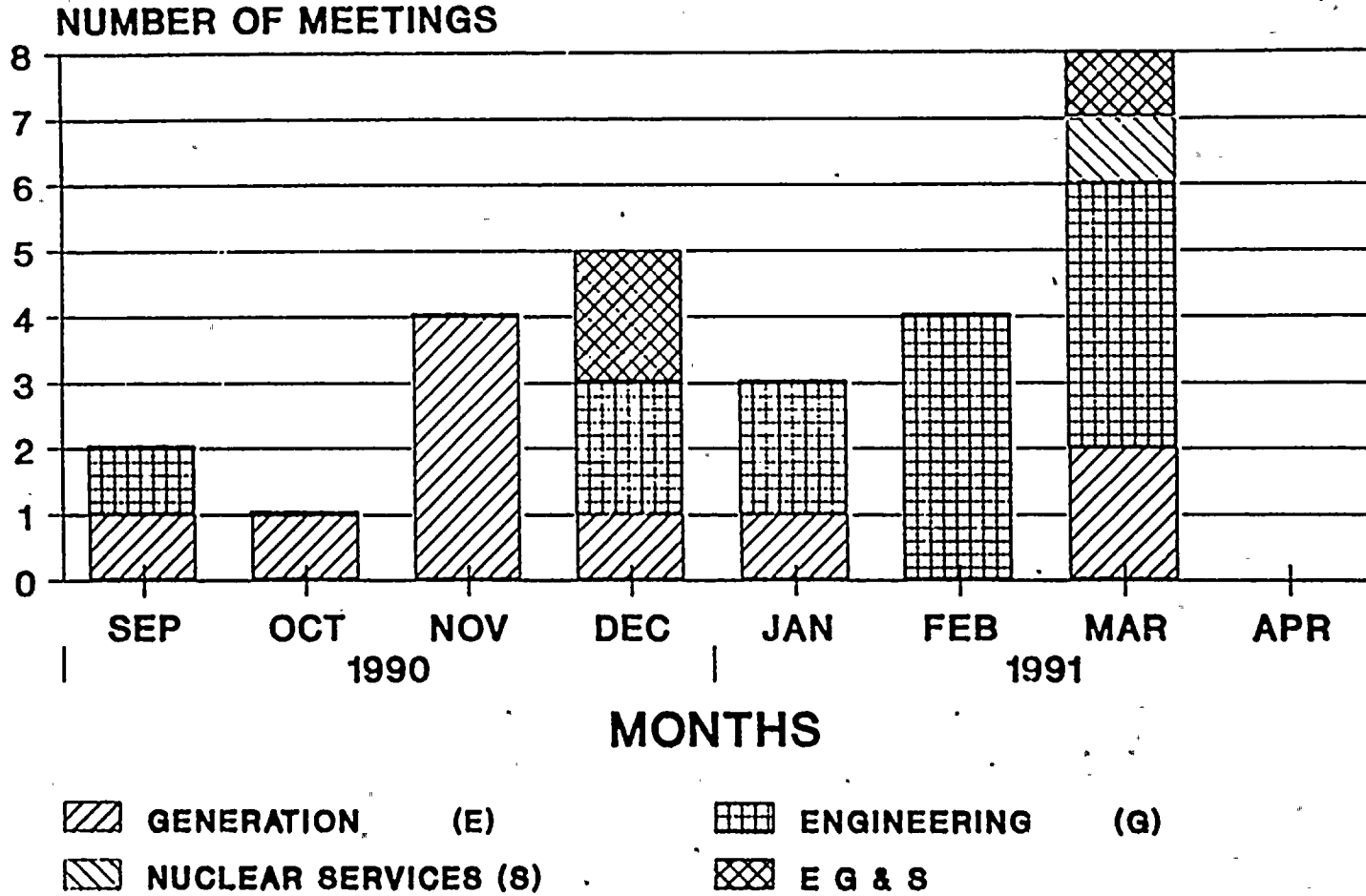
- EXAMPLES:

UNIT 2 OPERATORS WORKED IN A CONTAMINATED AREA WITHOUT PROPER PROTECTIVE CLOTHING (#12)

FAILURE TO FOLLOW PROCEDURES RESULTING IN A NRC VIOLATION (#25)



ACCOUNTABILITY MEETINGS





ACCOUNTABILITY MEETINGS

RESULTS ACHIEVED:

- DIVISION WIDE APPRECIATION OF MANagements COMMITMENT TO ACCOUNTABILITY
- INDIVIDUAL AWARENESS OF ACCOUNTABILITY FOR ASSIGNED RESPONSIBILITIES
- COMMITMENT TO PROCEDURAL COMPLIANCE
- COMMITMENT TO ATTENTION TO DETAIL



ATTACHMENT B

February 25, 1991 Meeting Attendees

Niagara Mohawk Power Corporation

J. Firlit	Vice President - Nuclear Generation NMPC
M. McCormick, Jr.	Plant Manager - Nine Mile Point #2
J. Perry	Vice President - QA NMPC
N. Spagnoletti	NMP1 Licensing NMPC
B. Ralph Sylvia	Executive Vice President - Nuclear NMPC
C. Terry	Vice President - Nuclear Engineering
S. Wilczek, Jr.	Vice President - Nuclear Support NMPC

U.S. Nuclear Regulatory Commission

W. Cook	Senior Resident Inspector NMPC
D. Haverkamp	Chief, Reactor Projects Section 4A
C. Hehl	Director Division of Reactor Projects
J. Linville	Projects Branch Chief
T. Martin	Regional Administrator
G. Meyer	Projects Section Chief
W. Schmidt	Senior Resident Inspector FitzPatrick
J. Wiggins	Deputy Director, DRP

