U.S. NUCLEAR REGULATORY COMMISSION

REGION 1

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| **Report No.** | 93-29 |
| **Docket No.** | 50-247 |
| **License No.** | DPR-26 |
| **Licensee:** | Consolidated Edison Company of New York, Inc.<br>4 Irving Place<br>New York, New York 10003 |
| **Facility:** | Indian Point 2 Nuclear Power Plant |
| **Location:** | Buchanan, New York |
| **Inspection Period:** | December 26, 1993 - February 5, 1994 |
| **Inspectors:** | G. Hunegs, Senior Resident Inspector<br>T. Frye, Resident Inspector |
| **Approved by:** | Larry B. Nicholson, Chief<br>Reactor Projects Section No. 1A<br>Division of Reactor Projects |

3/2/94
Date

**Inspection Summary:** This inspection report documents resident inspector core, regional initiative, and reactive inspections performed during day and backshift hours of station activities including: plant operations; maintenance; engineering; and plant support.

**Results:** Inspection results are summarized in the attached executive summary.

## EXECUTIVE SUMMARY

**Indian Point 2 Nuclear Power Plant**
**NRC Inspection Report No. 50-247/93-29**

PLANT OPERATIONS: On January 26, the normal source of offsite power, the 138 KV feeder, opened which caused the loss of 480 Volt buses 5A and 6A which resulted in the auto start of all three emergency diesel generators (EDGs). Control room operators restored power to 480 Volt buses 5A and 6A from the EDGs. Offsite power was shortly restored from an alternate source of offsite power, the 13.8 KV feeder. The inspector observed operator actions during this event. Operators demonstrated proficiency in response to the plant transient. The cause of the loss of the 138 KV feeder is under investigation by Con Edison.

MAINTENANCE/SURVEILLANCE: An epoxy repair was performed on the safety injection pump casing. The inspector concluded that safety injection pump leak path and repair options were thoroughly evaluated to perform an appropriate casing repair.

During a repair of an individual rod position indication (IRPI) channel, good communications and control of the work were observed. The operators maintained a good awareness of the availability of IRPI for all rods affected by the work and confirmed actual rod position using the various alternate methods available. Appropriate management supervision and involvement was observed throughout the work.

ENGINEERING: Con Edison reviewed the EDG cylinder liner failure event at another plant. Based on previous inspections, Con Edison engineering concluded that the Indian Point EDGs were not susceptible to liner cracking. The inspector concluded that engineering promptly and thoroughly reviewed this event for vulnerabilities in their own EDGs.

PLANT SUPPORT: The inspector observed training for new changes to 10 CFR 20. The training was of sufficient detail to ensure personnel were aware of the new requirements. In addition, personnel access to the radiological controlled area was prevented until the individual had completed the training. The inspector concluded that the training for the revision to 10 CFR 20 was well implemented.

SAFETY ASSESSMENT/QUALITY VERIFICATION: On January 3, 1994, it was identified by the licensee that 4 temporary procedure changes (TPCs) had not been reviewed as required by TS 6.8.3. TS 6.8.3 requires that TPCs be reviewed by the Station Nuclear Safety Committee (SNSC) and approved by a General Manager within 14 days of implementation.

**Executive Summary (Cont'd)**

The administrative process and controls for TPCs were reviewed and determined to be adequate. The cause of this event was identified as personnel error.

The inspector concluded that the TPC program is effective in processing TPCs and that these four TPCs represent an isolated failure. The safety significance of this event is low due to the nature of the four TPCs and the fact that the late review/approval was identified by the licensee and corrected 2 days after the time limit. This violation of TS 6.8.3 is not being cited because the criteria specified in Section VII.B.(2) of the enforcement policy were satisfied.

On February 4, 1994, a management meeting was conducted in NRC Region I to discuss Con Edison management expectations, standards and threshold for identifying non-conforming conditions. This meeting was held at the request of Con Edison following an NRC inspection in August 1993 that identified several weaknesses (Report 50-247/93-17).

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## DETAILS

## 1.0 SUMMARY OF FACILITY ACTIVITIES

The plant operated at 100% power throughout the inspection period. On January 26, a fault on an offsite feeder caused the loss of two of the four 480 volt safeguards buses resulting in the auto start of all three emergency diesel generators.

## 2.0 PLANT OPERATIONS

### 2.1 Operational Safety Verification

The inspectors observed plant operation and verified that the facility was operated safely and in accordance with Con Edison procedures and regulatory requirements. Regular tours were conducted of the following plant areas:

- control room
- primary auxiliary building
- radiological control point
- electrical switchgear rooms
- auxiliary feedwater pump room
- security access point
- protected area fence
- intake structure
- diesel generator room
- turbine building

Control room instruments and plant computer indications were observed for correlation between channels and for conformance with technical specification (TS) requirements. Operability of engineered safety features, other safety-related systems and onsite and offsite power sources was verified. The inspectors observed various alarm conditions and confirmed that operator response was in accordance with plant operating procedures. Routine operations surveillance testing was also observed. Compliance with TS and implementation of appropriate action statements for equipment out of service were inspected. Plant radiation monitoring system indications were reviewed for unexpected changes. Logs and records were reviewed to ascertain that entries were accurate and identified equipment status or deficiencies. These records included operating logs, turnover sheets, system safety tags, and the temporary modification book. Plant housekeeping controls were monitored, including control and storage of flammable material and other potential safety hazards. The inspectors also examined the condition of various fire protection and meteorological monitoring systems. Control room and shift manning were compared to regulatory requirements and portions of shift turnovers were observed. The inspectors found that control room access was properly controlled and that a professional atmosphere was maintained.

In addition to normal utility working hours, the review of plant operations was routinely

conducted during portions of backshifts (evening shifts) and deep backshifts (weekend and midnight shifts). The inspectors worked 32 backshift hours and 9 deep backshift hours during this inspection period. Operators were alert and displayed no signs of inattention to duty or fatigue.

The inspectors used probabilistic risk assessment (PRA)-based inspection guidance in performing system walkdowns. This guidance helped focus NRC inspection resources toward risk significant items. During this inspection period, walkdowns were performed on the auxiliary feedwater system, safety injection system, service water, condensate and main steam system. The systems were found to be in a condition to support operability.

The inspectors observed an acceptable level of performance during the inspection tours detailed above.

### 2.2 Followup of Events Occurring During the Inspection Period

During the inspection period, the inspectors provided onsite coverage and followup of unplanned events. Plant parameters, performance of safety systems, and licensee actions were reviewed. The inspectors confirmed that the required notifications were made to the NRC. During event followup, the inspectors reviewed the corresponding documentation, including the event details, root causes, and corrective actions taken to prevent recurrence. The following events were reviewed.

#### 2.2.1 Loss of Normal Source of Offsite Power

On January 26, at 2:40 p.m., the normal source of offsite power, the 138 KV feeder, opened which caused the loss of the station service transformer, 6.9 KV buses 5 and 6 and 480 Volt buses 5A and 6A. The loss of 480 Volt buses 5A and 6A initiated the auto start of all three emergency diesel generators (EDGs). Control room operators restored power to 480 Volt buses 5A and 6A from the EDGs. At 3:40 p.m., offsite power was restored from an alternate source of offsite power, the 13.8 KV feeder. The inspector observed operator actions during this event. Operators demonstrated proficiency in response to the plant transient. The cause of the loss of the 138 KV feeder is under investigation by Con Edison.

## 3.0 MAINTENANCE/SURVEILLANCE

### 3.1 Maintenance Observations

Maintenance activities were observed during this inspection period on safety-related activities to ascertain that these activities were being conducted in accordance with approved procedures, technical specifications and appropriate industrial codes and standards. Observation of activities and review of records included verifying required administrative authorizations and tagouts were obtained, procedures were adequate, certified parts and materials were used, test equipment was calibrated, radiological requirements were

implemented, system prints and wire removal documentation were used and quality control hold points were established. Maintenance activities observed included:

| | |
|---|---|
| WO 93-67579 | Replace Rod Position Indication N9/C9 Drawer |
| WO 93-65270 | Overhaul Spare Safety Injection (SI) Pump |
| WO 93-66481 | 22 Emergency Diesel Generator (EDG) Semi-Annual Preventive Maintenance |
| WO 93-64010 | Replace Motor Starter on EDG Auxiliaries |

### 3.1.1 Spare SI Pump Overhaul

The spare SI pump was overhauled in part due to an observed leak from a pump casing bolt hole while the pump was still in service. After removal from service, radiography and liquid penetrant testing verified that there was no leak path from the pump casing pressure boundary to the bolt hole. The leak path was confirmed to be past the pump casing gasket, through the bolt hole to the outside surface of the pump. Since the leak was not in the pump pressure boundary, an epoxy repair to the pump casing bolt hole was performed under work order (WO) 93-65270.

The inspector reviewed the casing repair with the system engineer to determine the adequacy of an epoxy repair to a safety injection pump casing. The inspector reviewed the casing non-destructive test results and engineering evaluations performed for the casing repair. Good interaction was apparent between the system engineers, quality assurance (QA), and corporate engineering in evaluating the non-destructive test results to confirm the cause and location of the casing leak path. A detailed corporate engineering review was performed to evaluate the acceptability and chemical compatibility of the epoxy repair on the casing. The inspector concluded that safety injection pump leak path and repair options were thoroughly evaluated to perform an appropriate casing repair.

### 3.1.2 Rod Position Indication N9/C9 Drawer Replacement

Rod position indication (RPI) N9/C9 drawer replacement was performed under WO 93-67579 due to the failure of RPI N9. Drawer replacement was performed per step list IC-SL-017, Rev. 0, and reviewed by Safety Evaluation 93-386-PR. Both documents were well written and provided good instruction to the technicians and evaluation of the work to be performed. Prior to the beginning of the maintenance, a comprehensive briefing with the shift crew was given by the instrumentation & control (I&C) manager. The work involved was thoroughly discussed, along with the effects on the plant, risks involved, probable consequences, and the applicable technical specification (TS) LCOs and operating procedures which would be entered during the evolution.

Good communications and control of the work was observed between operations and I&C during the drawer replacement. The operators maintained a good awareness of the availability of RPI for all rods affected by the work and confirmed actual rod position using the various alternate methods available. TS and operating procedures were reviewed and required actions taken as RPI status changed throughout the drawer replacement. Appropriate management supervision and involvement was observed throughout the work.

### 3.2 Surveillance Observations

Surveillance activities observed and reviewed emphasized inspection of safety-related activities. Observations of activities and review of records included verifying required administrative approval was obtained, procedural precautions and limitations were observed, review of test data was accurate and timely, surveillances conformed to technical specifications, calibrated test equipment was used, radiological controls were observed, and required surveillance frequencies were met. Surveillance activities observed included:

PT-Q17 Verification of Alternate Safe Shutdown Equipment

PT-Q48 AMSAC Logic

PT-Q29 Safety Injection System

PT-Q29A 21 Safety Injection Pump

PT-2M5 Safety Injection Logic

The surveillance testing was performed safely and in accordance with proper procedures. Inspectors noted that an appropriate level of supervisory attention was given to the testing depending on its sensitivity and difficulty.

#### 3.2.1 Verification of Alternate Safe Shutdown Equipment

A recent event at Indian Point 3 involved the unavailability of Appendix R alternate shutdown controls for a component cooling water (CCW) pump. The alternate shutdown equipment at Indian Point 3 had been installed in 1983, but had not been formally tested until September 1993. When tested, the CCW could not be started from it's alternate AC power supply due to control power fuses not being installed for the alternate power supply breaker.

The inspector reviewed PT-Q17 to determine how the alternate safe shutdown equipment is tested at Indian Point 2. PT-Q17 is a quarterly surveillance procedure performed to verify that the alternate safe shutdown equipment can be aligned and operated from the alternate AC power supplies. The inspector reviewed the last performance of PT-Q17 and discussed the

test and alternate AC power supply system with the system engineer. The inspector concluded that the alternate safe shutdown system is adequately tested and should identify any problems similar to the one at Indian Point 3 in a timely manner.

## 4.0 ENGINEERING

The inspectors reviewed selected design changes and modifications made to the facility which Con Edison determined were not unreviewed safety questions and did not require prior NRC approval as described by 10 CFR 50.59. Particular attention was given to safety evaluations, Station Nuclear Safety Committee approval, procedural controls, post modification testing, operator training, and UFSAR and drawing revisions. The following activities were reviewed:

### 4.1 Emergency Diesel Generator Cylinder Liners

Preliminary Notification PN1-9368 was issued by the NRC on December 7, 1993, concerning the failure of a cylinder liner on an ALCO emergency diesel generator (EDG) at Salem Unit 2. The cylinder liner in question was supplied by Canadian Allied Diesels (CAD) and the failed liner had been installed at Salem Unit 2 in March 1993. To date, the liner failure has been determined to be an isolated event and the root cause of the failure has yet to be positively identified. Indian Point 2 also has ALCO EDGs, similar to those at the Salem units, and the inspectors reviewed the susceptibility of the Indian Point EDGs to similar failures.

Con Edison was promptly informed of the cylinder liner failure via the INPO network, and engineering immediately performed a review of the status of the liners at Indian Point 2. The three EDGs at Indian Point still have their original ALCO cylinder liners in service. The 23 EDG cylinder liners were last visually inspected in 1989 during the 12 year overhaul, and were satisfactory. The 21 and 22 EDG cylinder liners were last visually inspected in 1991 during their 12 year overhauls and were also satisfactory. Therefore, engineering concluded that the Indian Point EDGs were not susceptible to liner cracking similar to Salem. The inspector concluded that engineering promptly and thoroughly reviewed this event for vulnerabilities in their own EDGs.

## 5.0 PLANT SUPPORT

### 5.1 Radiological Controls

Radiological protection activities were observed on a periodic basis. The activities observed included radiological work practices, radiation surveys, and compliance with radiological procedures and requirements. Based on the activities observed, radiological procedures and requirements were followed.

The inspector observed training for new changes to 10 CFR 20. The revised rule establishes new requirements and procedures for dose assessment, record-keeping and reporting. The training was of sufficient detail to ensure personnel were aware of the new requirements. In addition, personnel access to the radiological controlled area was prevented until the individual had completed the training. The inspector concluded that the training for the revision to 10 CFR 20 was well implemented.

### 5.2 Emergency Preparedness

The inspectors toured the onsite emergency response facilities to verify that these facilities were in an adequate state of readiness for event response. The inspectors discussed program implementation with the applicable personnel. The resident inspectors had no noteworthy findings in this area.

### 5.3 Security

During routine inspection tours, the inspectors observed implementation of portions of the security plan. Areas observed included access point search equipment operation, condition of physical barriers, site access control, security force staffing, and response to system alarms and degraded conditions. These areas of program implementation were determined to be adequate. No unacceptable conditions were identified.

### 5.4 Fire Protection

During plant tours, the inspectors assessed plant areas for fire hazards including ignition sources and flammable materials. They also examined fire alarms, extinguishing equipment, emergency lighting, actuation controls, fire fighting equipment, and fire barriers for operability. In addition, the inspectors verified that required compensatory measures, such as fire patrols, were properly implemented.

### 5.5 Housekeeping

The inspectors assessed the control of plant housekeeping in safety related areas. They also examined these areas for potential missile hazards such as gas cylinders that could damage safety significant equipment. Overall plant housekeeping was good.

## 6.0 SAFETY ASSESSMENT/QUALITY VERIFICATION

### 6.1 Temporary Procedure Changes Not Reviewed In A Timely Manner

On January 3, 1994, it was identified by the licensee that 4 temporary procedure changes (TPCs) had not been reviewed as required by TS 6.8.3. TS 6.8.3 requires that TPCs be reviewed by the Station Nuclear Safety Committee (SNSC) and approved by a General Manager within 14 days of implementation. All four of these TPCs were implemented on

December 18, 1993, and were reviewed/approved on January 3, 1994, 2 days after the required deadline. This event was documented by significant occurrence report (SOR) 94-002, and a human performance evaluation was performed to determine the root cause and develop corrective actions to prevent recurrence.

The administrative process and controls for TPCs were reviewed and determined to be adequate. The cause of this event was identified as personnel error. The personnel involved identified that the four TPCs needed review within 14 days, however the significance of the 14 day limit was not recognized at the time by the individuals. Corrective actions included review of the TPC administrative process with all Generation Support personnel, and enhancements to the TPC administrative procedures to prevent recurrence.

The inspector reviewed the four TPCs, the human performance evaluation, corrective actions, and discussed the TPC process with the Generation Support Manager. The inspector concluded that the TPC program is effective in processing TPCs and that these four TPCs represent an isolated failure. The safety significance of this event is low due to the nature of the four TPCs and the fact that the late review/approval was identified by the licensee and corrected 2 days after the limit. This violation of TS 6.8.3 is not being cited because the criteria specified in Section VII.B.(2) of the enforcement policy were satisfied.

### 6.2 Review of Periodic Reports

The inspectors reviewed periodic reports submitted pursuant to Technical Specifications. This review verified that the reported information was valid and included NRC required data. The following report was reviewed:

Monthly Operating Report for December, 1993

No deficiencies were identified.

### 6.3 Station Nuclear Safety Committee Meetings

The inspectors attended several Station Nuclear Safety Committee (SNSC) meetings during this inspection period. The committee composition and quorum requirements specified in TS 6.5.1 were satisfied. The meeting agendas included a review of facility operations to detect potential nuclear safety hazards and a review of procedural changes. Inspectors noted a good questioning attitude and safety perspective from the committee. Overall, the level of review and member participation was satisfactory to fulfill the SNSC responsibilities.

### 6.4 Nuclear Facilities Safety Committee Meeting

On February 3, the inspector attended the Nuclear Facilities Safety Committee (NFSC) meeting. The committee composition and quorum requirements specified in TS 6.5.2 were satisfied. The meeting included a review of plant status and events, NRC inspection reports

and proposed changes to Technical Specifications. In addition, the Quality Assurance audit schedule was reviewed. The inspector noted a good questioning attitude from the committee.

## 7.0 MANAGEMENT MEETINGS

Periodic meetings were held with station management to discuss inspection findings. Following the inspection an exit meeting was held to discuss the inspection findings and observations. Con Edison did not object to the findings or observations discussed at the exit meeting. No proprietary information was covered within the scope of the inspection report. No written material regarding the inspection findings was given to the Con Edison during the inspection period.

## 7.1 Management Meeting to Discuss Recent Plant Issues

On February 4, 1994, a management meeting was conducted in King of Prussia, Pennsylvania to discuss Con Edison management expectations, standards and threshold for identifying non-conforming conditions. This meeting was held at the request of Con Edison and was open to the public.

Attachment 1 contains the meeting handout and list of attendees.

## 7.2 Inspections Conducted By Region Based Inspectors

| Date | Subject | Inspection No. | Inspector |
|---|---|---|---|
| Jan 10-14 | Engineering | 94-01 | P. Patniak |

## 7.3 NRC Management Visits

| Date | Visits |
|---|---|
| 1/11-12 | L. Nicholson, Chief, Reactor Projects, Section 1A |
| 1/14 | S. Shankman, Deputy Director, DRSS |
| 2/2 | C. Cowgill, Chief, Reactor Projects Branch 1 |

**Attachment 1**

**ATTENDEES AND HANDOUT FROM THE FEBRUARY 4, 1994 MEETING**

**U.S. Nuclear Regulatory Commission**

G. Hunegs, Senior Resident Inspector
M. Williams, Project Manager, NRR
R. Capra, Project Directorate I-1
C. Cowgill, Chief, Reactor Projects Branch 1
L. Nicholson, Chief, Reactor Projects, Section 1A
W. Lanning, Deputy Director, DRP
M. Mayfield, Acting Deputy Director, DRS
P. Patniak, Reactor Engineer, DRS

**Consolidated Edison**

S. Bram, V. P. Nuclear Power
T. Schmeiser, General Manager, Nuclear Power Generation
M. Miele, General Manager, Technical Services
V. Mullin, Manager, Plant Engineering
C. Jackson, Manager, Nuclear Safety and Licensing
J. McAvoy, Operations Manager
S. Brozski, Manager, Nuclear Quality Control

# NRC - CON EDISON

# MANAGEMENT MEETING

# INDIAN POINT UNIT 2

FEBRUARY 4, 1994

# MANAGEMENT EXPECTATIONS

# AND

# THRESHOLDS

# AGENDA

- Management Expectations

  The Program For Excellence

- Recent Feedback

- The Corrective Action Program

  And Thresholds

- Immediate Results

- Our Challenge

# MANAGEMENT EXPECTATIONS

# THE PROGRAM FOR EXCELLENCE

To continue the momentum generated by the Consolidated Improvement Program (which was completed in 1992), Con Edison decided in early 1993 to develop a new Program For Excellence. The Program For Excellence is intended to raise the Indian Point Unit 2 performance to the highest levels of the Nuclear Industry.

# PROGRAM FOR EXCELLENCE

- Begun In 1993 To Continue Progress Made With The Consolidated Improvement Program
- Objective To Improve Performance To The Level Of The Industry's Best
- The Program Provides Tangible, Measurable Goals And Implementing Actions
- Integrated With The Five Year Business Plan To Assure Resource Allocation
- Progress And Effectiveness Continues To Be Monitored By The Program Oversight Committee

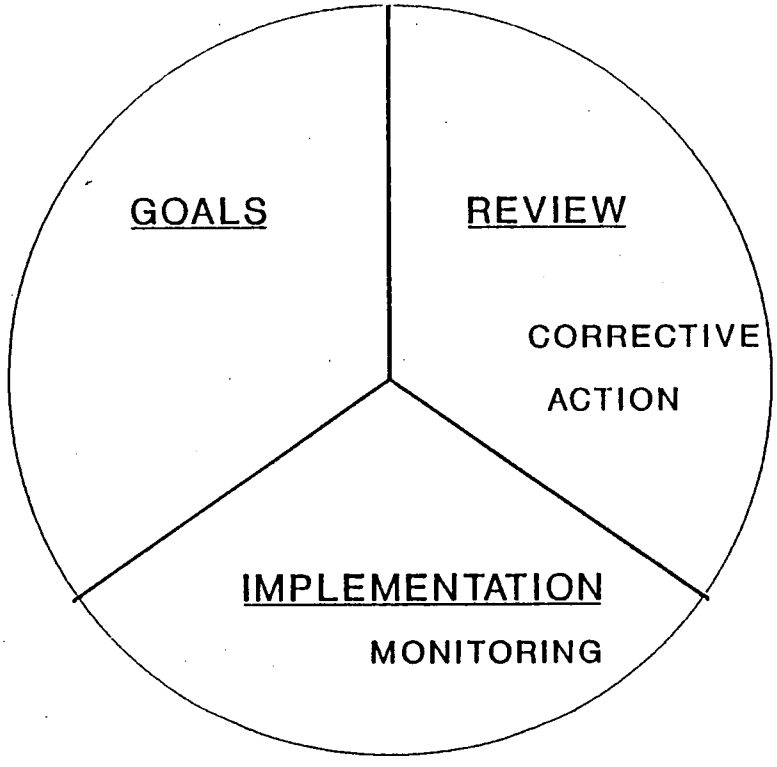
## RECENT FEEDBACK

High management expectations need to be extended to several additional areas to achieve a more uniform high level of performance.

The threshold for identifying non-conforming conditions, including deficiencies, was high.

The effectiveness of the corrective action processes was mixed.

# MANAGEMENT SYSTEMS

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# THE CORRECTIVE ACTION PROGRAM AND THRESHOLDS

## The Past

- Major Programmatic Changes In 1991
  - Common Cause Coding
  - Integrated Several Programs Under Station Administrative Order 132
- Daily Management Review Group Formed
- Corrective Action Process Effectiveness Significantly Improved
- New Process Effectively Integrated In Daily Plant Life

## RECENT IMPROVEMENTS

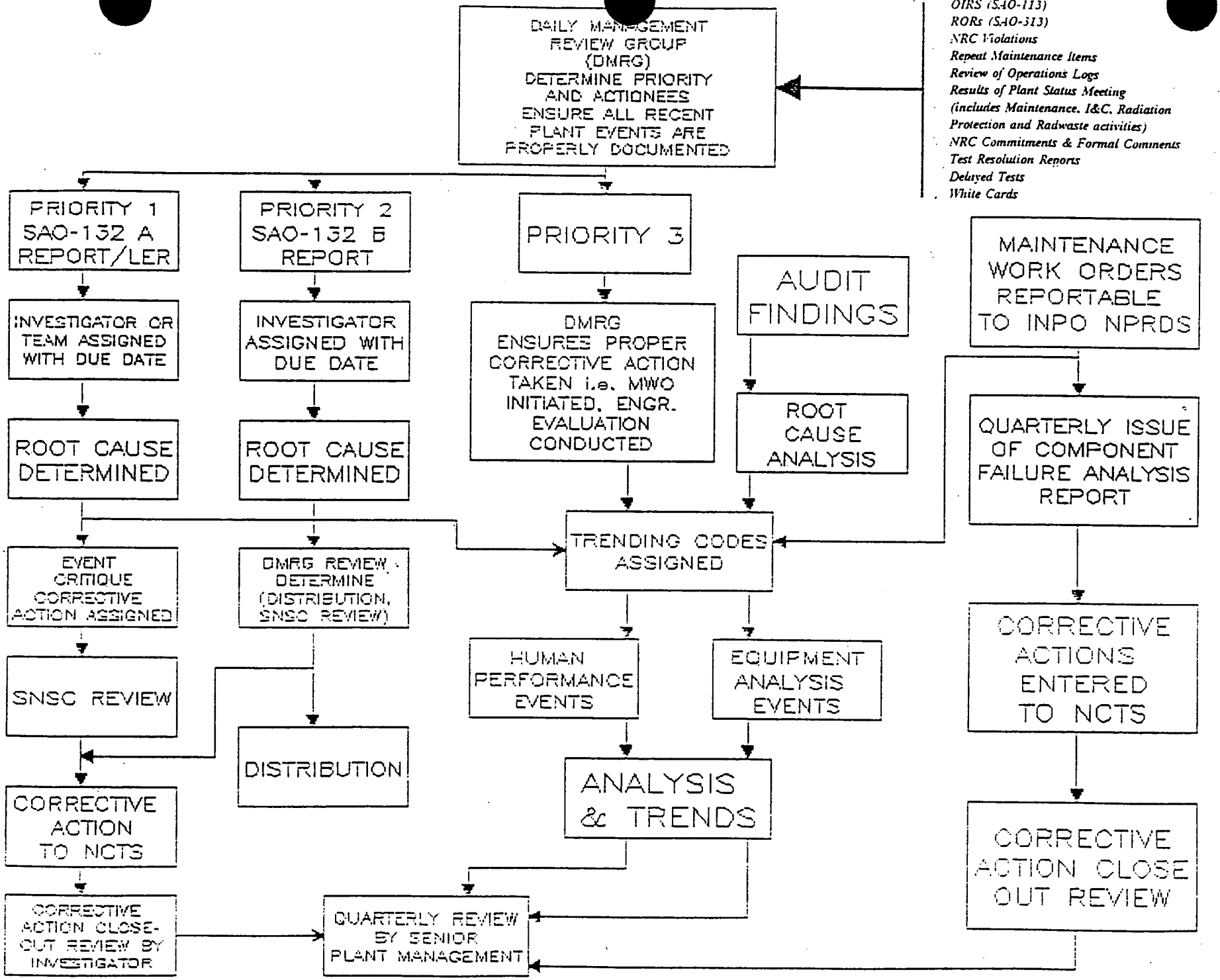
- Benchmarking

- Iterative Review And Section Head Buy-In

- Changes Made To Several Administrative Orders To Lower Thresholds And Improve Timeliness And Documentation Requirements

- QA "White Cards" and Test Resolution Reports Were Brought Under The SAO-132 Umbrella

- [see enclosed figure for threshold details]


DAILY MANAGEMENT REVIEW GROUP (DMRG) DETERMINE PRIORITY AND ACTIONEES ENSURE ALL RECENT PLANT EVENTS ARE PROPERLY DOCUMENTED
SORs (SAO-124)
OIRS (SAO-113)
RORs (SAO-313)
NRC Violations
Repeat Maintenance Items
Review of Operations Logs
Results of Plant Status Meeting
(includes Maintenance, I&C, Radiation Protection and Radwaste activities)
NRC Commitments & Formal Comments
Test Resolution Reports
Delayed Tests
White Cards
PRIORITY 1 SAO-132 A REPORT/LER
PRIORITY 2 SAO-132 B REPORT
PRIORITY 3
AUDIT FINDINGS
MAINTENANCE WORK ORDERS REPORTABLE TO INPO NPRDS
INVESTIGATOR OR TEAM ASSIGNED WITH DUE DATE
INVESTIGATOR ASSIGNED WITH DUE DATE
DMRG ENSURES PROPER CORRECTIVE ACTION TAKEN i.e. MWO INITIATED, ENGR. EVALUATION CONDUCTED
ROOT CAUSE ANALYSIS
ROOT CAUSE DETERMINED
ROOT CAUSE DETERMINED
QUARTERLY ISSUE OF COMPONENT FAILURE ANALYSIS REPORT
TRENDING CODES ASSIGNED
EVENT CRITIQUE CORRECTIVE ACTION ASSIGNED
DMRG REVIEW DETERMINE (DISTRIBUTION, SNSC REVIEW)
HUMAN PERFORMANCE EVENTS
EQUIPMENT ANALYSIS EVENTS
CORRECTIVE ACTIONS ENTERED TO NCTS
SNSC REVIEW
DISTRIBUTION
ANALYSIS & TRENDS
CORRECTIVE ACTION TO NCTS
CORRECTIVE ACTION CLOSE-OUT REVIEW BY INVESTIGATOR
QUARTERLY REVIEW BY SENIOR PLANT MANAGEMENT
CORRECTIVE ACTION CLOSE OUT REVIEW

# Corrective Action Thresholds

| OIR | SOR | |
|---|---|---|
| Document and evaluate a discrepancy between a controlled drawing and the actual field condition, or between two controlled drawings. | Test failures. | Radiological events involving radioactive spills, or unexpected or unmonitored releases to environment. |
| Track temporary repairs. | Any event requiring SAO-124 notification. | Security non-emergency significant events. |
| Document and evaluate lost or missing items within closed systems. | Failures of an automatic plant function related to safety or plant control. | Fires. |
| Document and evaluate class A parts or equipment that have a manufacturing or design defect. | Any oil spill. | Components that are found in a position other than that specified by the applicable procedure (i.e., COL, SOP, stop or caution tagout), as it applies to the existing plant condition. |
| Document and evaluate inspections that did not meet the acceptance criteria, or inspections that were not performed as required. | Each time the plant enters a degraded mode described in an LCO (except as described in SAO-124, Section 5.6.2). | Any other event associated with Indian Point station that requires a written report as condition of an Indian Point 1 or 2 Technical Specification. |
| Document and evaluate violations of work implementation procedures, such as step lists, check lists, etc. | The failure of any safety related component. | Change in LCO during operation in a degraded mode. |
| Document and evaluate administrative control violations that could affect licensing commitments. | Equipment malfunction, damage, or degradation that is considered sudden or unexpected and outside the anticipated performance history of the item (e.g., sheared pump shaft, broken gear teeth, excessively bent valve stem, burned up electrical equipment/components, etc.). | Violations of approved procedures that are not identified through the normal review and approval process. |
| Document and evaluate records and documentation that are found inaccurate or incomplete after having been processed through the normal review cycle. | Any plant derating (e.g., greater than 20 MWe.). | Loss of control deficiencies in licensed nuclear material accountability. |
| Document technical questions where there is insufficient information to obtain an answer. | Abnormal actuation of plant automatic function. | Any actual or potential Technical Specification or License violation. |
| Track the use of conditionally accepted (yellow tagged) equipment. | Changes in plant mode (i.e., reator operating conditions per Technical Specification 1.2) resulting from an LCO. | Any unexpected power transient. |
| Document and evaluate the acceptability of unusual or abnormal or degraded field conditions adverse to quality, e.g. those which may involve operability considerations such as:<br>- Pressure boundary leakage<br>- Bent supports<br>- Missing or loose nuts or unsplayed cotter pins<br>- Missing, loose or damaged wiring, terminations, fire wrap, insulation.<br>- Overspray or incorrect paint applications.<br>- Evidence of fire damage.<br>- Boric acid residue accumulations.<br>- Leakage including water, gas, oil, etc.<br>- Instrumentation beyond calibration due date. | Significant deviations that could affect the capability of plant equipment, systems or structures to perform its intended safety function. | RCS or secondary side chemistry conditions that are out of their procedural specifications. |
| | Turbine trips. | Reactor trips. |

| WO | | |
|---|---|---|
| Corrective maintenance. | Preventive maintenance. | Install approved modification. |

# IMMEDIATE RESULTS

## Corrective Action Program

The program improvements were put in place in October, 1993. As training was accomplished, and implementation was begun stationwide, several impacts were noticed almost at once.

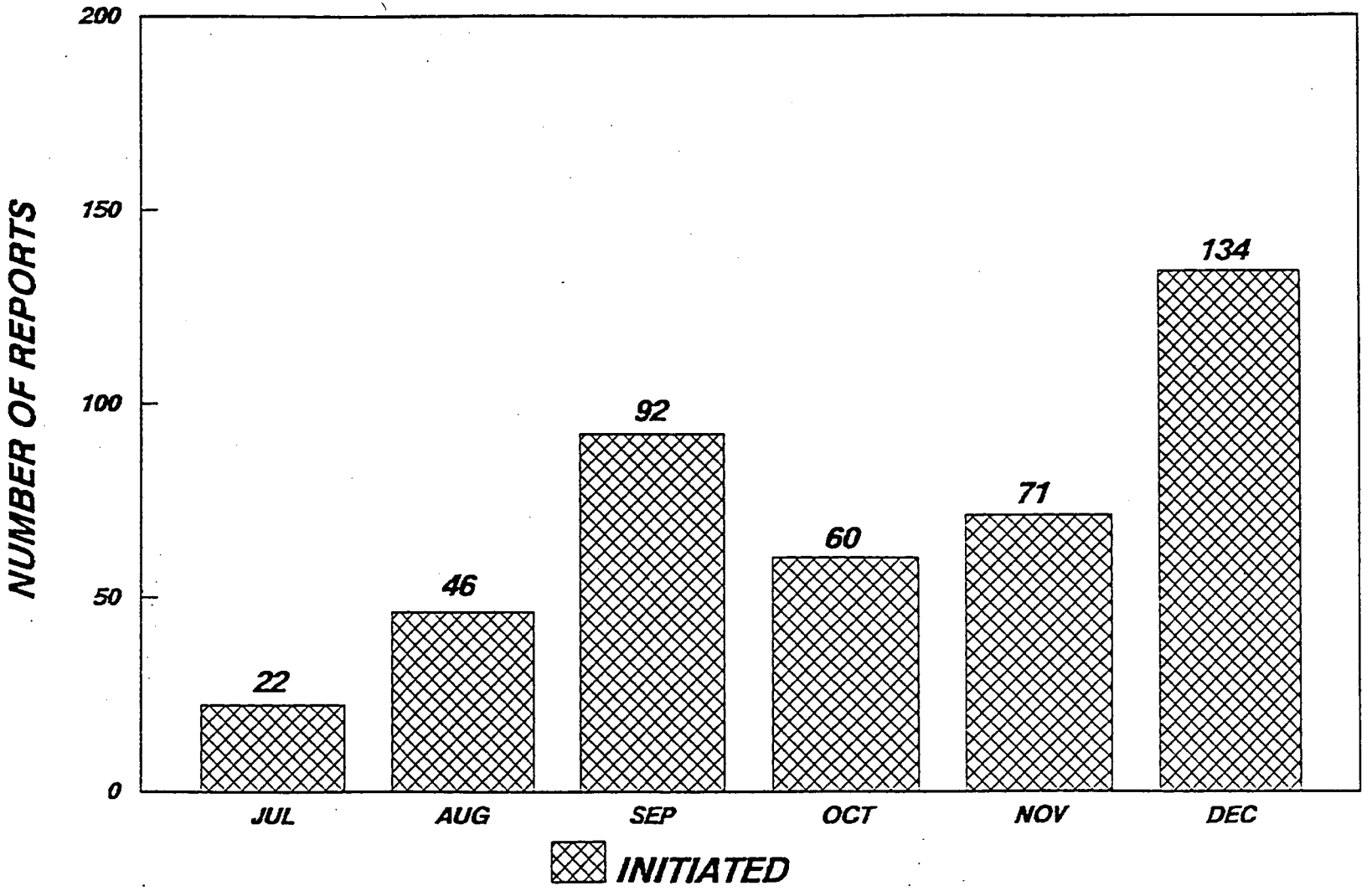
- A step increase in Maintenance Work Orders for material deficiencies.

- A step increase in Open Item Reports and Significant Occurrence Reports, especially for documentation deficiencies.

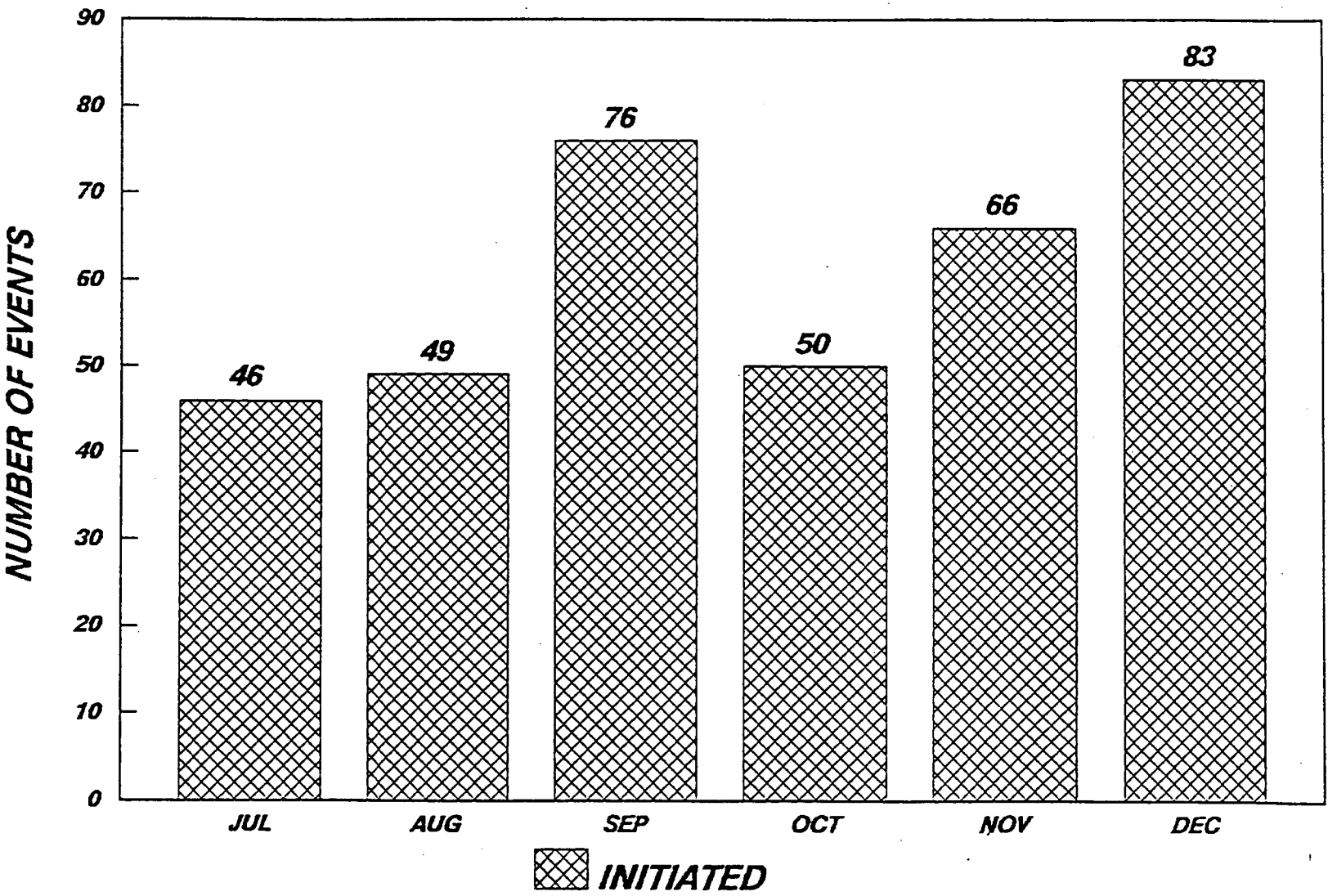
- As items are assigned for review and followup, the tracking system (NCTS) has shown a significant increase in new opened items during the last quarter of 1993.

- The number of Temporary Procedure Changes and communications to staff have also shown a significant increase.

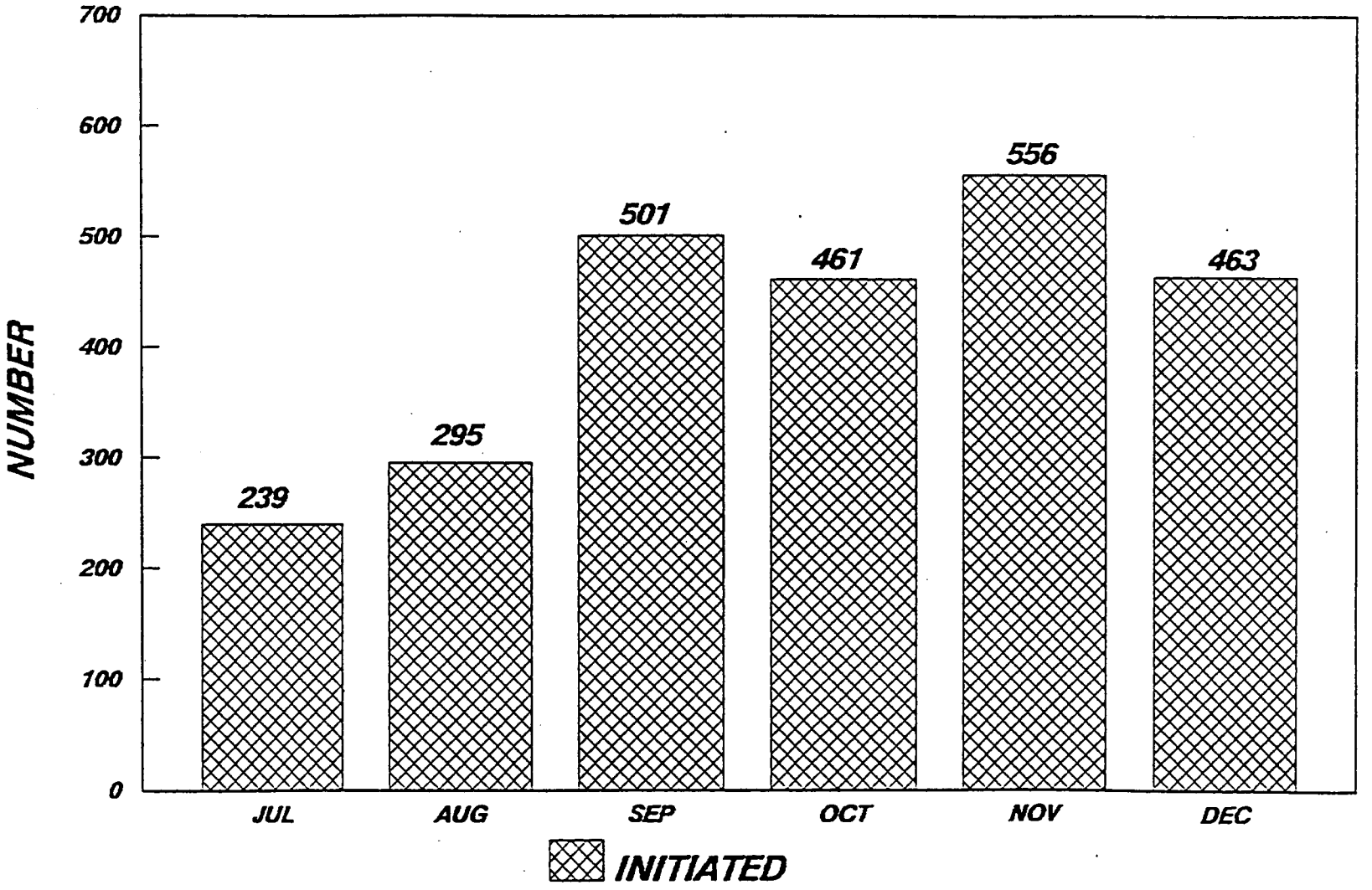
# OPEN ITEM REPORTS



# SIGNIFICANT OCCURRENCE REPORT (SOR) REVIEW



# WORK ORDERS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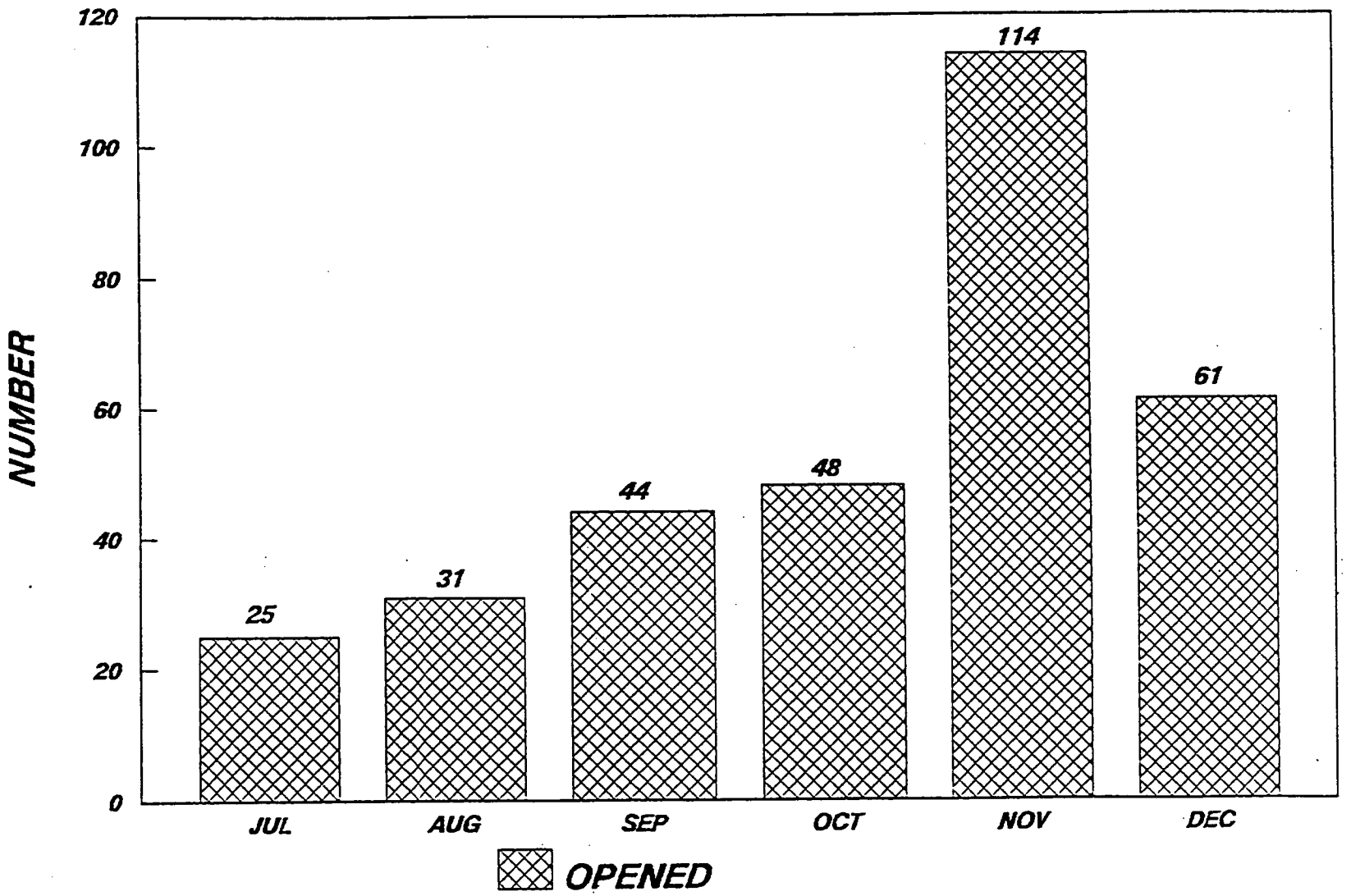
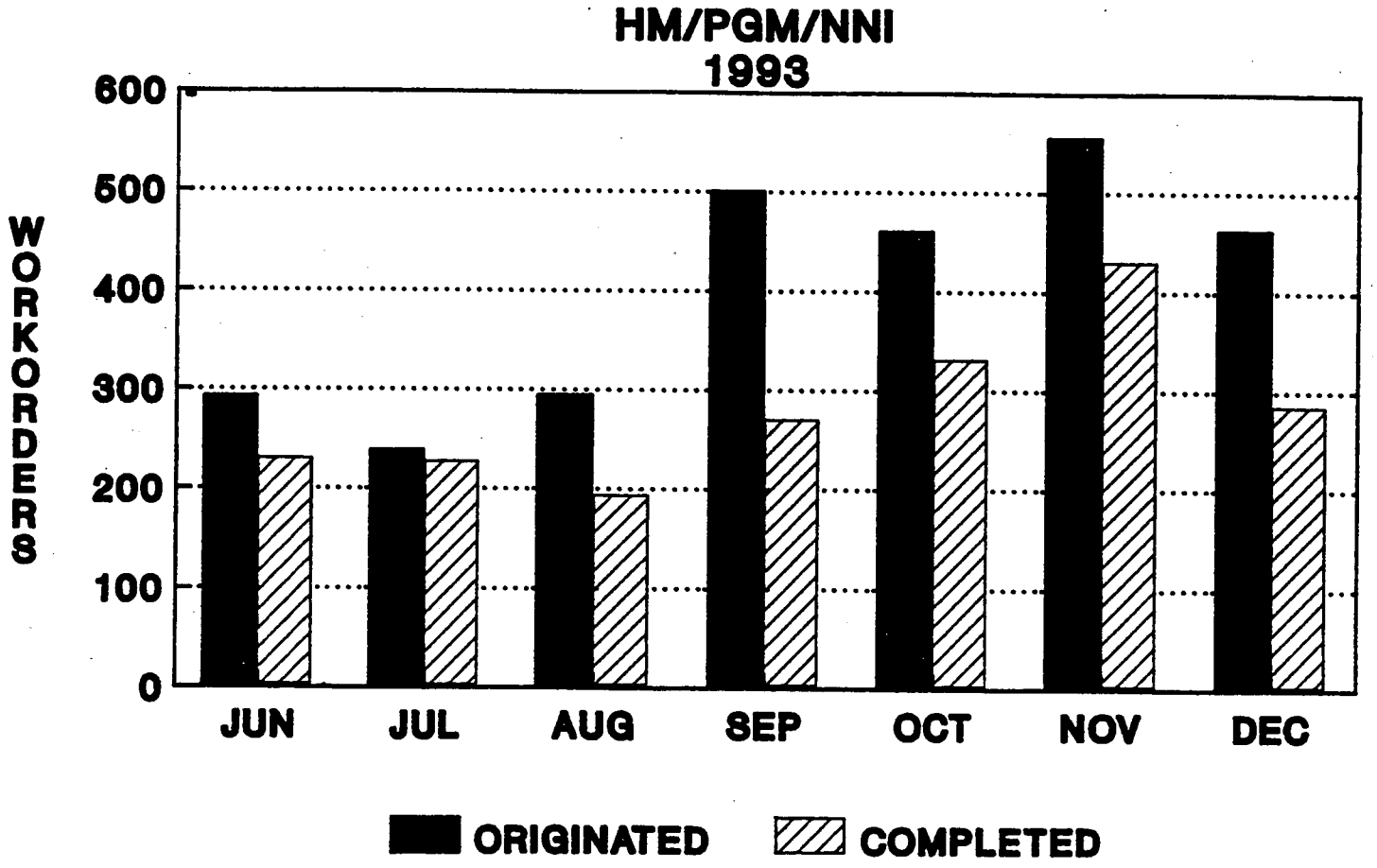
# NUCLEAR COMMITMENT TRACKING SYSTEM (NCTS)

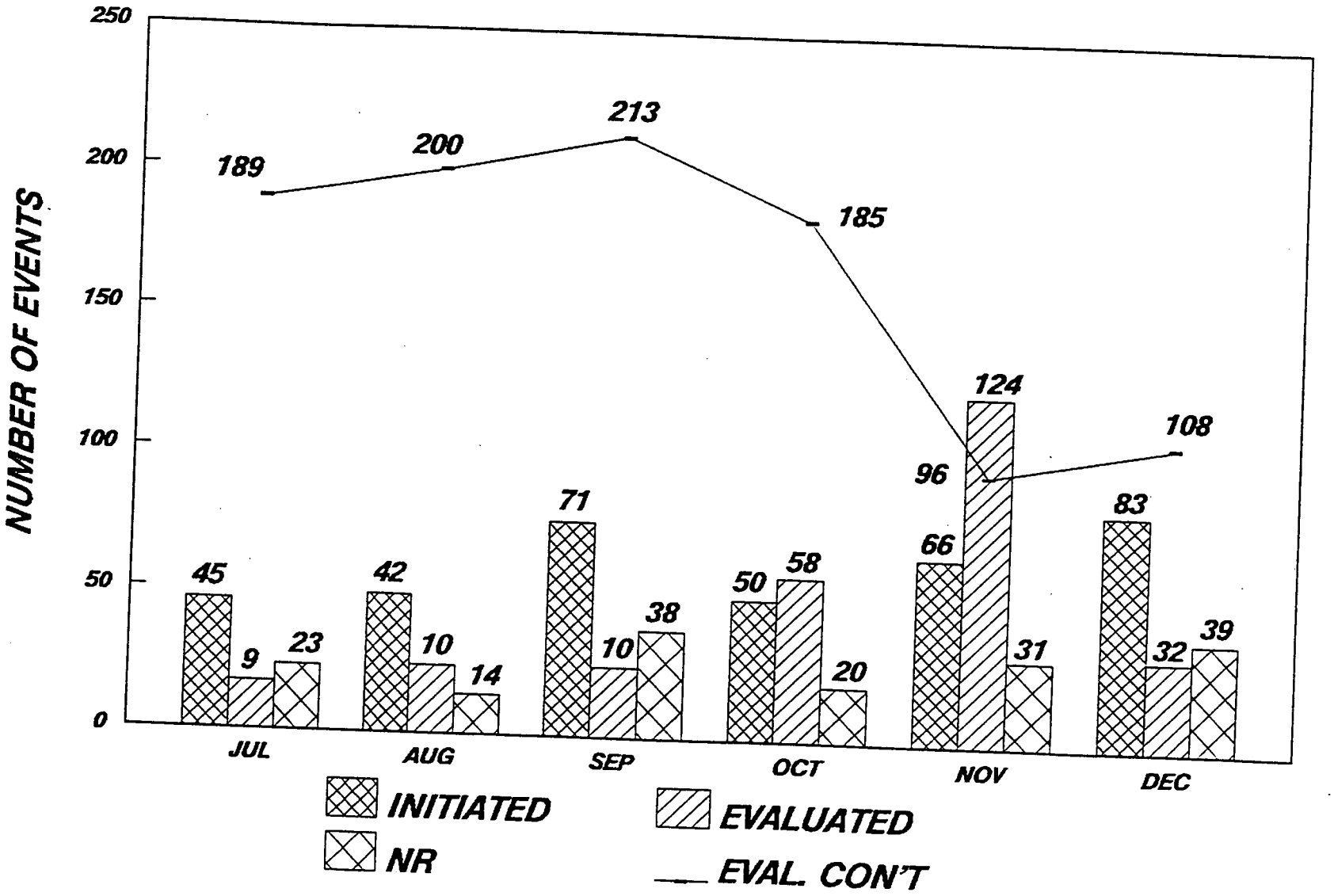


# WORK ORDER COMPLETION

## TOTAL MAINTENANCE



# SIGNIFICANT OCCURRENCE REPORT (SOR) REVIEW



# IMMEDIATE RESULTS

## Material Condition and Housekeeping

- System Walkdowns

  Utilizing System Performance Teams

  Lower Thresholds Initiated

- Plant Cleanup Days

  Involved All Plant Employees

  Two Conducted To - Date

- Direct Senior Station Management Attention

## OUR CHALLENGE

To assure that all station personnel buy in to the Program Improvements and achieve a uniform implementation in all plant areas.

As was accomplished after the 1991 Program Improvements, make the new Program part of daily plant life and sustain the higher level of performance that results.