



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30323

Report No. 50-324/92-09 and 50-324/92-09

Licensee: Carolina Power and Light Company  
P. O. Box 1551  
Raleigh, NC 27602

Docket Nos. 50-325 and 50-324 License No. DPR-71 and DPR-62

Facility Name: Brunswick 1 and 2

Inspection Conducted: March 16-27 1992

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4/23/92  
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4/23/92  
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### SUMMARY

#### Scope:

This special safety inspection by the Region was an announced evaluation of the Operations Unit. It included observation of control room and in-plant activities performed by operators. Further, the team assessed the effectiveness of Operation's Management, the work control processes, and corrective actions, as they relate to the Operations Department, at the site. The team interviewed a cross section of operators to aid in the assessment. The team focused on previous plant deficiencies including work control, and configuration control to determine the root causes for continuing plant performance deficiencies. Additionally, the team evaluated the material condition of the plant.

### Results:

The Operations Department at Brunswick is a positive contributor to the site programs. In the past several years the Operations Unit has changed from a less than effective performer to one of the more effective performing groups at the site. The improvements in Operations occurred primarily as the result of increased management attention, restructuring of shift activities including personnel reassignments, shift rotation, and increased expectations on performance. The team observed many positive aspects of operator performance. Most notably, the team observed control room activities as professional. Plant evolutions were controlled with personnel demonstrating a concern for plant safety, and operators were knowledgeable of technical issues concerning plant operation. Although performance is much improved, areas for improvement remain.

Despite the improved performance by the Operations Unit, performance errors still occur. Some of the errors are due to deficient work practices, others occur because of ineffective support from other plant groups, and still others occur because of weak self-assessment and corrective action programs. The team concluded that continued improvement in the Operations Department is limited because of several plant and Operations Department performance weaknesses. These weaknesses pose major challenges to the site in stemming past performance errors and improving not only Operations' department performance but overall plant performance as well. The team concluded that there are at least six barriers to improved performance in Operations. These barriers are categorized as: (1) a lack of critical self assessment; (2) a lack of emphasis on reducing work arounds; (3) incomplete control room oversight; (4) break-downs in interunit communications and support; (5) material deficiencies; and (6) weaknesses in corrective action programs. Most importantly were the two areas of material deficiencies and incomplete control room oversight. The former results in significant and continuing challenges to the operators, and the later results in distractions from licensed duties in the control room.

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*K. Ahern, Manager - Operations
- \*M. Bradley, Manager - Brunswick Assessment Project
- \*S. Callis, On-Site Licensing Engineer
- \*S. Floyd, Manager - Regulatory Compliance
- \*R. Godley, Supervisor - Regulatory Compliance
- W. Hatcher, Supervisor - Security
- R. Helme, Manager - Technical Support
- \*J. Holder, Manager - Outage Management & Modifications
- B. Leonard, Manager - Training
- P. Leslie, Supervisor - Security
- \*D. Moore, Manager - Maintenance
- \*R. Poulk, Manager - License Training
- \*C. Robertson, Manager - Environmental & Radiological Control
- \*J. Simon, Manager - Operations Unit 1
- J. Spencer, General Plant Manager - Brunswick Steam Electric Plant
- \*R. Starkey, Vice President - Brunswick Nuclear Project
- \*R. Tart, Manager - Operations Unit 2
- \*G. Warriner, Manager - Control and Administration
- K. Williamson, Manager - Nuclear Engineering Department (Onsite)

Other licensee employees contacted included construction craftsmen, engineers, technicians, operators, office personnel, and security force members.

#### NRC Personnel

- \*G. Lainas, Associate Directorate, Region II Reactors
- \*A. Gibson, Director, Division of Reactor Safety, RII
- \*N. Le, NRR Project Manager, Brunswick
- \*R. Prevatte, Senior Resident Inspector Brunswick
- \*R. Carroll Jr., RII Project Engineer
- \*G. Schnebli, Resident Inspector (Turkey Point)
- \*P. Byron, Resident Inspector, Brunswick
- \*D. Nelson, Resident Inspector, Brunswick
- \*M. Shannon, Resident Inspector, Harris
- \*M. Shymlock, Section Chief, Plant Systems
- \*M. Lesser, Senior Resident Inspector, North Anna
- \*D. LaBarge, NRR Project Manager, Sequoyah
- \*C. Casto, Section Chief, Operator Licensing

\*Attended the exit interview

Acronyms and Abbreviations used throughout this report are listed in the last paragraph.

## 2. Introduction (71707)

The team observed activities associated with plant operations for two weeks. In addition, interviews were conducted with operators and other plant personnel to ascertain the effectiveness of the Operations Unit. After assessing the interviews and observations, the team concluded that several areas impeded the operating staff performance. These areas, along with the team's conclusions on Operations Unit strengths are discussed in this report.

## 3. Limited Self-Assessment

There was very limited self-assessment/critique done by Operations. Despite the ACR system, Operations was not completely critical in performing self-assessments. A clear example of this occurred as a result of an ACR written by CAP questioning the continuing number of valve mispositioning events by Operations (ACR 91-609). At the time the ACR was generated, Operations could not find a common thread to support that a breakdown in their performance was causing these errors. The facts seemed to support that these were isolated instances and no major corrective actions were necessary to preclude further mispositioning. Consequently, valve mispositioning events continued and another ACR was initiated after 3 more mispositions occurred. Operations missed an opportunity to be self critical and consider the entire situation when evaluating this ACR. Given the number of errors that were being committed, including a higher number of LERs issued due to personnel error than average, Operations was not assiduous in self assessment. Additionally, if their evaluation implicated other groups this information should have been shared with those groups as a broader concern.

The team also noted that Operations was not aggressive in addressing those problem areas which affected the group the most. For example, Operations did not have an aggressive program to reduce the numbers of temporary conditions in the control room. They were not forceful in seeing that these conditions were resolved by maintenance or other groups that were responsible for eliminating the problem area. The numbers of LCOs, disabled alarms, TSIs, and caution tags in the control room were essentially constant. Except for the "10 most wanted modification and maintenance" lists, Operations was not aggressive in pursuing the resolution of the problems that affect them the most in operating the facility.

There were very few, if any, internal audits conducted by the Operations Unit. NAD evaluated Operations as a part of a Site Wide Assessment; however, Operations, as a Unit, only audited the Auxiliary Operator logs. Most corrective actions

generated by Operations were the result of outside group assessments.

#### 4. Lack of Emphasis on Reducing Work Arounds

Temporary conditions (caution tags, jumpers, disabled annunciators, EERs, EWRs) were numerous and many dated back to 1984. The current number tracked by the licensee was 538 items. The temporary conditions were identified to responsible groups (NED, I&C, OM/M etc.) by Tech Support. Some progress had been made since last year as the number was about 650. The Tech Support group was responsible for tracking the reduction of temporary conditions. The reduction program did not appear to be aggressive as those temporary conditions which the licensee identified as an operational impact were to be reduced from 200 to 170 by the end of the year. Temporary conditions such as disabled annunciators, caution tags and LCOs that impacted Operations were not individually trended. The team also noted that while overall goals for reducing temporary conditions were established, goals for responsible units were not established. This appeared to be an example where assignment of accountability by management was lacking.

Additionally Operations Managers were not fully aware that disabled annunciators were trended by Tech Support and other than the "10 most wanted list" did not provide significant input into the prioritization of temporary conditions. Therefore, work arounds continued to impede Operation's performance. An example of continuing work arounds was an unmonitored release that occurred as a result of a longstanding clearance on the turbine building roof fans. The fans remained isolated for years because they were not needed, but a damper on one of the fans was open causing an unmonitored pathway. Operations was using the clearance system as a permanent plant modification to disable the fans.

#### 5. Incomplete Control Room Oversight

Many expectations for control room activities were established and well followed. The current shift rotation promotes effective operator turnovers. There have been events in the past caused by incomplete shift turnover, but overall the process was well controlled. In one instance, a Shift Supervisor came into work a day early just to become familiar with existing condition before assuming the shift on the next day. The licensee has set forth policy on repeat backs which is generally being followed by operators and others.

In the aggregate, management of the control room activities is satisfactory. However, there are some areas where performance could improve as noted below:

a. Operator Performance

During the two week inspection the operators had to respond to several significant events. Most notably were a Reactor Coolant System leak into the Drywell, a failed reactor pressure instrument, a major feedwater heater tube failure, two reactor feedpump speed controller failures, condensate booster pump failure to start, and a major downpower maneuver in response to two post-accident drywell radiation monitor failures. The team noted that the operators controlled these evolutions with adeptness and demonstrated their ability to diagnose and respond to abnormal situations. During the response to these evolutions the crews used extensive pre-evolutionary briefs, where feasible, to ensure that they were fully informed. Additionally, the team noted that the operators were knowledgeable, capable, and demonstrated a sincere desire to comply with all station procedures and requirements.

Even with their demonstrated abilities, the operators were limited in their effectiveness by distractions caused by administrative duties, primarily work control activities. These distractions posed a challenge to the oversight function of the control operators, but more importantly to the SCOs.

b. Clearance and Configuration Control

Clearance and configuration errors have continued to occur. Examples of these were the overflowing of Reactor Water Cleanup resin, incomplete restoration of a Drywell Sample system, and other significant mispositioning events.

Several factors contributed to continued configuration and clearance errors in the plant. First, distractions due to work control limited the amount of time available for supervisors to monitor AO performance in the field. The team observed that supervisors were limited in the time they could spend in the plant, consequently many times AO's were tasked with placing and removing clearances without management oversight. Secondly, maintenance would sometimes change valve or breaker positions within a clearance boundary when operators were not aware of the work performed within the boundary of the clearance. Therefore, when the clearance was removed, operators were unfamiliar with the activities that maintenance had performed.

### c. Caution Tags

The team observed over 30 temporary caution tags on the control room board and in the plant. The caution tags were used to alert an operator of an abnormal condition or a precaution to take when operating equipment. Maintenance or engineering action was generally needed to resolve the abnormal conditions. The team observed temporary caution tags dating back to 1984.

Many of the caution tags required the operators to "work around" deficient conditions. One example included a requirement to manually start diesel building ventilation fans if the diesel was started. Caution tags were also used to identify that the control board switches for two reactor feed pump stop valve drain valves actually operated the opposite valve. Even though these valves are normally operated together the situation represents a continuing problem in resolving hardware deficiencies. Caution tags also were used to alert operators that torus level isolation valve switches were incorrectly located on the control board (since 1988) erroneously grouping the valves with the wrong penetration.

The team noted that the index for the Caution Tag Log contained over 40 pages. No effort had been made to condense the index since 1983 following canceled entries. This made review of the active log entries difficult and time intensive. Operators stated that they did not routinely review the log.

### d. Limiting Condition for Operation (LCO) Log

The LCO Logs were reviewed for both units. Many of the entries were made for items to track even though the LCO was met. This was considered a good method for maintaining control of the status of TS items.

Numerous entries were noted involving radiation monitors and other instrumentation, many requiring compensatory actions. Examples included a drywell radiation monitor, offgas discharge radiation monitor, reactor building vent particulate, iodine sample pump, and a turbine building high range noble gas monitor. Additional equipment included a remote shutdown panel reactor level instrument, a post accident sampling system reactor pressure instrument and a post accident monitoring instrument paper recorder. Several of the items had been inoperable for over a year.

Two examples in particular illustrated the lack of effective working relationships between groups. The SJAE hydrogen monitors are required by TS and have historically been

unreliable. Water chemistry program changes involving hydrogen injection into the feedwater, included installation of upgraded SJAE hydrogen monitors. Unresolved questions with the water chemistry program had placed the hydrogen injection system on hold although the new SJAE hydrogen monitors were functional. Nevertheless, the monitors had not been considered operable because they were associated with the water chemistry program. Meanwhile grab samples and local temperature monitoring compensatory measures remained in place. The radioactive liquid effluent flow totalizer had also been historically unreliable. A modification to upgrade the monitor was completed and tested in January 1992. The system was recently declared inoperable when its quarterly surveillance expired. It was not clear whether I&C or Radwaste Operations were responsible for writing the new surveillance procedure, consequently, the procedure was not written. Meanwhile compensatory measures were in place to estimate the flow during liquid releases once per 4 hours.

e. Jumper Log and Disabled Annunciators

The team reviewed the jumper and lifted leads logs for both units and noted that there was an excessive number of jumpers dating as far back as 1984. Unit 1 had 31 jumpers and unit 2 had 24 jumpers installed. Many of the jumpers involved disabled control room annunciators established to eliminate nuisance alarms for the purpose of achieving a black board. While the short term goal of black board was being met, a lack of technical support to permanently resolve the annunciator problems was evident. As of the end of February 1992, a total of 32 disabled control room annunciators existed. The licensee did not consider this to be a weakness and had no program to reduce the disabled annunciators other than to maintain the number below 20 per unit. In fact, the licensee generally considered their black board program to be a strength. Examples of disabled alarms included jumpered vital battery room ventilation low flow alarms since 1988 and radwaste building static pressure alarm since 1984 both due to spurious actuation. The team noted that the governing procedure for jumpers, AI-58, does not impose a time limit for dispositioning jumpers; therefore, no driving force exists to permanently resolve these conditions.

f. Drawings

The team reviewed the use of drawings by operations in the control room and the clearance center. The team did note that the process of reviewing drawings for clearances was cumbersome. To ascertain the impact of outstanding modifications or drawing corrections, the operator accesses the NRCS via computer. All outstanding items associated with a drawing were listed. The operator then must search through



each outstanding document to obtain the details of the issue and assess the impact on the drawing. The team noted that in many cases adequate detail was not available to do this review. Operators voiced some reservations with the system and stated that they sometimes need to pull the modification document (not readily available in the control room or clearance center) and do further research.

The team noted that status codes of the items were displayed on NRCS and that operations users were not completely familiar with the meaning of the status codes. Increased familiarity with codes such as "in preparation" could alleviate some of the concerns; however, more detailed comments and revision basis descriptions may be beneficial.

A requirement existed to annotate in NRCS, drawings affected by mechanical jumpers but not electrical and lifted leads jumpers. The team reviewed the mechanical jumpers and noted that the requirement was recently implemented but not backfitted on older jumpers.

#### g. Technical Specification Interpretation Book

The TS Interpretation Book located in the control room had eleven currently applicable interpretations. All but 4 of these interpretations indicated that a TS change was needed to resolve the issue, because of errors in the TS rather than just their interpretation. The book was rather thick because even deleted interpretations were included. This made it cumbersome and somewhat confusing. Also no index was included to indicate which interpretations were currently applicable. There were interpretations that dated back to April 1985.

The controlled copy of TS in the control room was to be annotated to indicate to the operator that they should refer to the interpretation book for specific direction. However, it was noted that some of the TS were not annotated as indicated.

#### h. Log Keeping

In the past there were some deficiencies noted in control room log keeping. The team concluded that log keeping has improved, but improvements can still be made in clearly explaining situations surrounding plant evolutions, and the basis for various operator actions.

## 1. Procedures

Operation's procedures were current and the team noted no major difficulties with procedures or procedure backlog. The total backlog of procedure change requests was 272 as of February 1992. There were 133 closed in February with 86 greater than 90 days old. Given that, on the average, 90 or more requests per month were received, it seemed reasonable that operations would have this amount of a backlog. Operations was aware of the backlog, and was tracking the requests. Most of the changes involved the Operating Procedures; however, an independent audit was conducted by the licensee on the EOPs. This audit did find some problems with the EOPs, but the majority of the changes were administrative issues with procedure format and editing.

## 6. Deficient InterUnit Support and Communications

The interface between operations and other units remained a significant weakness. Often incomplete interunit communication resulted in long delays in repairing or returning important equipment to service. For example, after the team identified degraded electrical junction boxes in the presence of Tech Support and Maintenance personnel, four days passed before appropriate Managers in Maintenance, Tech Support, and Operations were fully aware of the problems. The Shift Supervisor had been immediately informed of the condition and the team had discussed the matter with Operations managers and maintenance personnel in the ensuing days. Only after the team met with representatives from most of these groups, four days later, was the entire scope of the problem recognized. Additionally, it was clear that some of these groups did not fully understand the implications of the team's finding. This was an example of poor communications within and between departments. Other examples of this problem included a lack of understanding on the need to reduce temporary conditions; and an inability to decide ownership of equipment such as the liquid radwaste effluent monitor.

There were very few formerly licensed operators in some departments e.g., Maintenance, E&RC, and Tech Support. This contributed to a lack of reliance upon these groups by operators. Although there are some former licensed personnel in various plant groups, this was very isolated. Consequently, control room operators question the reliability of decisions made by these groups. When these various groups proposed solutions to problems or when they asked to remove equipment from service, operators had little confidence that the solution or request was well thought out for operational considerations. An example of this was the maintenance process. Due to a lack of operations experience in maintenance, operators often questioned maintenance

activities. They canceled scheduled work or questioned the Technicians in detail about the scope of the work. Many of these decisions were made only after a considerable amount of time was expended questioning, researching, and discussing the activity. The time that was consumed making these decisions distracted the operators from their control room duties.

The team observed some occasions where the control room operators vetoed the decisions made by SWFCG because they questioned the compliance with TS or other plant considerations. This included canceling work on fire detectors, chlorine detectors and many other components. This resulted in delayed work and distracted the operators from control room duties. When the configuration of the plant changed unexpectedly overnight, operators would have to screen the daily work schedule to ensure that the work was not affected by the changes in plant configuration. The SWFCG process did not prevent scheduled work from reaching the control room after the configuration change. Thus, operators were overwhelmed in the mornings with work that was not applicable for the given conditions, and this exacerbated the distraction from their duties.

In addition to the pre-screening of work, the team observed several occasions where the operators were uninformed of work in progress. Consequently, AO's and CO's were unnecessarily distracted from their duties. This was particularly true with fire protection and refueling floor activities.

The SCO was observed being used as a resource for maintenance planning. The team considered this inappropriate as it distracted from their duties to supervise plant operation. A more ingrained problem appeared to be the use of the SCO to review work packages in detail for approval while responsible for the control room command function. In addition to distracting SCO's from operating duties, this practice caused delays in the critical path times for maintenance work.

Previous weaknesses in maintenance work control included the lack of operations input for integrated scheduling. Corrective action has included the establishment of a chairman for SWFCG and a more detailed review of scheduling priorities. The team noted that daily SWFCG meetings were held for each unit to schedule work; however, an operations experienced person (previously SRO) only attended the Unit 1 meetings. Some SWFCG attendees were not supervisors and management involvement was not evident.

For the months of January and February 1992, on the average about 20% of the weekly scheduled work was either deferred or carried over to the next week. A major contributor to upsetting the maintenance schedule was the volume of emergent

work. During the inspection significant equipment problems occurred as described in paragraph 5.a. These equipment problems challenged the operators and some required unit maneuvering. They also severely impacted the maintenance schedule.

Work classified as emergent included RTGB indication deficiencies, although in some cases it was not appropriate, and appears to bypass the SWFCG process. SWFCG lacked the decision making authority to properly prioritize these issues against other scheduled work even though it was responsible for overall maintenance scheduling.

The ready backlog system for preplanning short-term outage work was not effective. The plant had identified work for short-term outages; however, the ready backlog system was not broad and did not cover short-term outages of components. For example, a previously identified temperature control valve leaking on Unit 1 reactor feedpump oil system caused the oil temperature to be too low upon pump startup. This condition was noted during a previous startup of the feedpump. Consequently, when the feedpump was shutdown during the team's visit, again the oil temperature was too low for pump startup. The pump had been shutdown for several days due to a governor control problem. No plans were in place in the ready backlog for fixing the leaking valve while the feedpump was shutdown for the governor maintenance. Another example occurred on the 2B Condensate Booster Pump where a previously identified problem with the pump not starting because an interlock failed, again prevented pump startup after the 2B Condensate Booster pump was shutdown during maintenance on a Unit 4 Reactor Feedpump.

In both instances these maintenance problems could have been resolved during the brief shutdown of the equipment if an effective ready backlog system had been in place. As a result, sometimes there were long delays in recovering TS and other equipment after a component failure or power level change.

Another example of ineffective interdepartmental communications occurred during the team's inspection of work activities. A Wide Range Gaseous Monitor was removed from service and an LCO entered when work was not actually planned on the instrument. The problems with interunit communication represented a significant impediment to better Operations Department performance.

The team did observe good interunit cooperation on several evolutions. On March 23, 1992 the team observed the monthly test on the #4 EDG. Good self-checking practices were observed and SRO supervisor oversight was present and

effective in assuring procedure compliance. Another notable occasion was the recovery of a failed reactor pressure transmitter. With a half-scrum existing, operations, along with I&C, had to recover the transmitter. This delicate procedure was accomplished without error and it demonstrated the capability of various units to work together.

#### 7. Endemic Material Deficiencies Not Resolved

Responsibility for plant material condition improvement in a few difficult to resolve areas was not evident. In these areas, longstanding, poor material conditions were tolerated by plant management, Operations and other plant personnel. As a result, work arounds and plant events occurred because of continued material degradation.

Examples of this noted by the team were:

- a. Overranged instrumentation resulted in local instrumentation (pressure gauges) on safety systems being valved out of service during plant operation. The team noted some HPCI local instrumentation was valved out of service. Many of these instruments are intended to verify TS operability during system testing. In addition, the instruments may provide diagnostic information during system operation. Operations may use the instruments in the event local control might be required, or if control room instrumentation needs to be independently verified during an event. The licensee had isolated the instruments because of failures due to overranging of the instruments.
- b. In some areas of the reactor buildings there were temporary power cables for lighting. Many of these areas had no permanently installed lighting; therefore, temporary power cables were used to provide power to temporary lighting. Long extension cords also existed on other pieces of equipment such as local radiation monitors and remote television monitors. These cords pose a possible fire hazard. They also make access to these areas during plant emergencies (i.e. loss of offsite power) difficult, and can affect operators ability to respond to events. A modification was suggested to install receptacles for some of this power; however, the modification was canceled based upon cost effectiveness.
- c. As a result of a previous fuel pool overflow event, past fuel leaks, and other evolutions the team noted many contaminated and high radiation areas in the plant. The existence of these areas not only results in a significant exposure concern, but also impedes the maintenance necessary to repair some of the significant endemic problems.

- d. Existing building leaks were causing degradation of both safety and non-safety related equipment. Most notably in the -17 foot elevation of Unit 1, ground water leaks had rusted electrical junction boxes, internal terminal strips, valves, instrumentation and other devices. The team expressed concern over Equipment Qualification and operability of associated safety systems. After further review, the team found, for the equipment they observed, that equipment qualification or operability was not a concern. However, the conditions did represent a degraded condition. Additionally, building leaks during a rainstorm caused an exciter grounding problem that necessitated emergency actions by the crews to prevent tripping of the unit.

These material deficiencies continued to cause impediments not only to operations, but to all plant groups. Coupled with the other barriers to improved operator performance, the material deficiencies caused frequent unexpected plant perturbations that continually challenge the operators. Although the operators responded well to these challenges, continuing material problems placed unnecessary burdens on their abilities.

#### 8. Areas Where Corrective Actions Have Not Improved Performance

In sum, the team concluded that there were some areas where previously identified corrective actions did not fully take hold. These areas, although related to the other barriers to operator performance, taken in the aggregate represent a barrier themselves. The areas noted by the team were:

- a. Despite Tech Support's goals and efforts to reduce Temporary Conditions, there has not been a significant reduction in the number of work arounds experienced by the operators.
- b. Interunit support and communications has flaws. Operation's itself demonstrated difficulty in communicating and working with other plant groups.
- c. Despite the lowering of the threshold for identifying ACRs, mispositioning of equipment continues to occur. An ACR was generated on March 20, 1992 to address this issue.
- d. Improvements in material condition continue to be slow. The severity of the endemic problems hampers the ultimate solution of plant material deficiencies.

- e. The ACR program has not always been effective in solving problems, especially across plant disciplines. Intergroup communications problems slowed solutions and diffused responsibility. This was evident in the Operations response to the ACR on valve mispositioning events. Recently operations has set forth improvement programs to address this area.

#### 9. Strengths

Operations demonstrated, and the team observed, several significant strengths during the two week period. The operator's ability to respond accurately to plant events was noteworthy. Despite continual challenges to the operators they exhibited the knowledge, skills, and abilities necessary to mitigate the consequences of the system/component failures that occurred during the two weeks. Operators were observed following procedures, making conservative decisions, using pre-evolutionary briefings, communicating using repeat-backs, and maintaining professionalism in the Control Room. A lower threshold for identifying ACR was also noted.

#### 10. Exit Interview (30703)

The inspection scope and findings were summarized on March 27, 1992, with those persons indicated in paragraph 1. The inspectors described the areas inspected and discussed in detail the inspection findings in the summary. Several licensee personnel asked for clarification of some issues. These clarifications primarily related to requests for specific performance discrepancies as examples for the team's conclusions. However, dissenting comments were not received from the licensee. Proprietary information is not contained in this report.

#### 11. Acronyms and Abbreviations

ACR	Adverse Condition Report
AMMS	Augmented Maintenance Management System
AO	Auxiliary Operator
CAP	Corrective Action Program
CO	Control Operator
EDG	Emergency Diesel Generator
EER	Engineering Evaluation Request
EOP	Emergency Operating Procedure
E&RC	Environmental and Radiological Control
EWR	Engineering Work Request
HPCI	High Pressure Coolant Injection
I&C	Instrument and Control
LER	Licensee Event Report
LCO	Limiting Condition for Operation
NAD	Nuclear Assessment Department

NED	Nuclear Engineering Department
NRC	Nuclear Regulatory Commission
NRCS	Nuclear Revision Control System
NRR	Nuclear Reactor Regulation (NRC)
OM&M	Outage Management and Modification
RHR	Residual Heat Removal
RTGB	Reactor Turbine Gage Board
SAC	Senior Auxiliary Operator
SCO	Senior Control Operator
SJAE	Steam Jet Air Ejector
SWFCG	Site Work Force Control Group
TS	Technical Specification
WR/JO	Work Request/Job Order