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May 13, 1994

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington D.C. 20555

Subject: Reply to a Notice of Violation IR 93-25  
Reference: River Bend Station - Unit 1 / Docket 50-458/93-25  
File Nos.: G9.5, G15.4.1

RBG-40580

Gentlemen:

Pursuant to 10CFR2.201, please find attached Entergy Operations, Inc.'s (EOI) response to two notices of violation described in NRC Inspection Report (IR) 93-25 and in the Notice of Violation, dated April 21, 1994. The IR addresses inadequacies in instructions, procedures or drawings affecting quality at River Bend and the identification and resolution of nonconformances and conditions adverse to quality. It also documents the results of the Operational Safety Team Inspection (OSTI) conducted between October 25-29 and November 8-12. This response also generally addresses the performance issues identified in the OSTI Report and in the Systematic Assessment of Licensee Performance (SALP) Report for River Bend Station (RBS) covering the period from September 27, 1992, through January 29, 1994.

RBS Management appreciates the significance of the issues identified in the OSTI and SALP reviews. The OSTI Report stated that "The team did not identify any safety significance findings that would preclude continued plant operation". A subsequent EOI evaluation of these issues concluded that the issues were of low safety significance and were similar to the performance problems identified during the development of the Near Term Performance Improvement Plan (NTPIP) and Long Term Performance Improvement Plan

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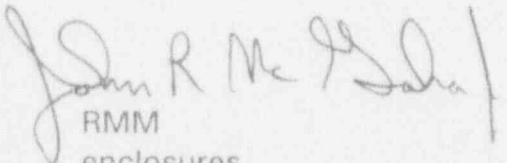
(LTPIP) for RBS. The OSTI and SALP Reports were consistent with this evaluation and both identified areas where these performance plans had achieved some improvement. EOI management realizes the importance of these performance issues and concurs with the OSTI and SALP safety assessments. EOI has committed to implement the NTPIP and LTPIP and has dedicated extensive resources to improve performance at RBS to support safe and reliable plant operations.

As presented at the March 22, 1994, RBS / NRC Management Meeting, the NTPIP and LTPIP address the underlying causes of the two proposed violations discussed in IR 93-25 as well as many of the other issues identified during the OSTI and SALP evaluations. Many NTPIP activities have been completed and the remaining will be completed by the end of Refueling Outage 5. Completion of the NTPIP provides the foundation for a transition to the more comprehensive initiatives being implemented in the LTPIP. The objective of the LTPIP is to solve the root causes of issues necessary for continued safe plant operations and focuses on issues that must be resolved in order to achieve permanent performance improvements at RBS. Both plans emphasize increased management oversight in work activities, clear communication of management expectations to all personnel, development and utilization of efficient work processes, and effective root cause evaluations and corrective actions.

Management is dedicated to improve the overall performance at RBS and believes that the activities outlined in the NTPIP and LTPIP will help us move toward achieving a significant improvement in performance as stated in the plan's objectives. The corrective actions established by these plans will not immediately resolve all issues associated with RBS performance problems but the programs are beginning to address these concerns and improvements have been noted. EOI has successfully improved performance at its other plants and is confident that its inherent philosophy of identifying, understanding and resolving problems will provide equally successful results at RBS.

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Should you have any questions, please contact me at (504) 336-4374.



RMM  
enclosures

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## EXECUTIVE SUMMARY

River Bend Station (RBS) Management appreciates the significance of the issues identified in the OSTI and SALP reviews and in particular the two violations cited in IR 93-25 and has taken immediate and comprehensive corrective actions to address these concerns. In addition to immediate corrective actions, long term initiatives have been established to provide continued improvement in these areas. Management is dedicated to improve the overall performance at RBS; has applied the necessary resources to support safe plant operations; and will continue to provide the support required to meet the goals and schedules outlined in the Long Term Performance Improvement Plan (LTPIP).

As presented at the March 22, 1994, RBS / NRC Management Meeting, the Near Term Performance Improvement Plan (NTPIP) was implemented to provide an immediate focus on performance improvements. Many of the underlying issues identified during the OSTI and SALP were very similar to those identified by EOI, NRC and INPO assessments during development of the NTPIP. In addition to providing an immediate focus on performance, the NTPIP provided the foundation to begin a transition to the more comprehensive initiatives being implemented in the LTPIP. The objective of the LTPIP is to solve the root causes of issues necessary for continued safe plant operation and focuses on issues that must be resolved in order to achieve significant, permanent performance improvements at RBS. Both plans execute a pro-active philosophy to identify and resolve issues with emphasis on increased management involvement in work activities, utilization of efficient work processes, and effective root cause evaluations and corrective actions.

Many of the NTPIP activities have been completed and the remaining activities are scheduled to be completed by the end of Refueling Outage 5. The LTPIP was issued and docketed in March 1994 after receiving concurrence from the responsible departments and review by site employees. EOI management and independent assessments concluded that RBS performance issues can be traced to four major root causes. The plan was developed to solve these root causes which are as follows:

- Planning, goal setting, performance monitoring and management feedback have not been effective
- Management and leadership skills have not kept pace with the level of change required

- Problem identification and problem solving methods have not been consistently applied to improve performance
- Critical station work processes are inefficient and have allowed backlogs of work to occur

Four key strategies were developed to address these root causes with each focusing on one performance area. There are thirteen programs associated with these key strategies. In addition to these key strategies a Plant Support strategy with seven additional programs was developed to increase focus on safe plant operation and maintenance.

The plan developed for each program covers program activities, priorities, responsibilities, and resources. The RBS management team has overall responsibility for ensuring that these programs achieve their specific objectives and function efficiently. Success depends on clear assignment of implementation responsibilities and strict accountability for performance. Each assigned individual has direct, personal responsibility and accountability for achieving results in his or her assigned area. To close out these programs, assessments will be performed at strategic points to ensure the corrective actions were effective.

In addition to monitoring specific activities, quantitative performance measures were also developed to track and evaluate the effectiveness of the LTPIP programs. Periodic management reports will be utilized to compare and trend plan performance to ensure that the overall objectives of the plan are being met. The LTPIP is a living document and will be updated to incorporate knowledge gained from subsequent performance evaluations. A revision to the plan will undergo review to ensure that the plan maintains its focus on performance and requires approval by the Vice President Operations.

The performance issues identified in the OSTI were compared with the issues addressed in the LTPIP which confirmed that the OSTI issues were being addressed. Many of these same issues were also noted as weaknesses in the SALP Report and resulted in a decline in performance as indicated in a decrease in ratings in the Maintenance and Engineering Functional Areas. As addressed at the March 17, 1994, SALP Meeting, RBS has implemented corrective actions to address these specific concerns and others to improve RBS performance in all functional areas. The SALP Report noted "that improvement initiatives and management changes have been effective in addressing some significant weaknesses identified early in the SALP period in the areas of radiological controls, fire protection, and security." The OSTI identified improvements in several areas that were also a result of these initiatives. Since completion of the OSTI and SALP

reviews, RBS management has noted further improvements in performance which has provided some indication that the corrective actions are resolving the issues. RBS management concurs with the OSTI and SALP reviews and believes that the RBS Performance Improvement Plans address the identified issues and will effectively improve overall performance.

Both the OSTI and SALP Reports identified weaknesses in the Maintenance and Engineering Support areas. EOI had previously identified weaknesses in these areas and had undertaken immediate corrective actions to reduce engineering and maintenance backlogs and to improve engineering problem analysis and safety evaluations. Subsequent to the OSTI and SALP reviews, additional corrective actions were implemented to reorganize the engineering department to centralize management and provide clearly defined roles and responsibilities for each position and department. In addition, an Engineering Review Committee was established to improve the quality and depth of engineering and operability evaluations. These changes will result in a more effective engineering organization better equipped to focus on supporting plant operations and maintenance in addition to resolving the issues associated with long-standing equipment problems, many of which are being addressed during Refueling Outage 5.

The Performance Improvement Plans also provide initiatives to improve human performance effectiveness which was also identified in the OSTI and SALP as an area requiring improvement. This is one of the principal areas targeted in the LTPIP and has been the focus of both internal and external assessments to identify the root causes of RBS performance problems. The results of these assessments concluded that many of the underlying problems are associated with the processes, programmatic controls and effectiveness of supervision, all of which, are being addressed in the LTPIP.

Another area of primary focus is the Corrective Action Process. Significant changes have been implemented in this area to improve the accuracy of root cause evaluations and increase the effectiveness of corrective actions. The entire process has been revised to include increased management involvement and oversight. Management has communicated their expectations for heightening the significance of problem identification to all site personnel. With increased management attention to these issues, there has been increases in problem identification in several areas including plant equipment problems and procedural inadequacies.

EOI management agrees with the findings identified in the IR 93-25 Notice of Violation. As described above and in the following attachments, corrective actions were implemented to immediately address the identified issues. In addition, significant resources have been applied to implement long term corrective actions to prevent their recurrence and improve the



overall performance of RBS. In addition to the issues cited in the IR 93-25 Notice of Violation, there were also several inspector follow-up items and unresolved issues identified in the Inspection Report. These issues were also similar to those being addressed by NTPIP and LTPIP initiatives. These issues have been assigned to the appropriate departments for resolution.

Management is dedicated to improve the overall performance at RBS and have began by implementing the programs and activities outlined in the LTPIP. The LTPIP corrective actions will not immediately resolve all issues associated with RBS performance problems but the programs are addressing these concerns. Upon completion in 1996, significant and permanent performance improvements should help RBS achieve significant improvement in performance as stated in the plans objectives. EOI has successfully improved performance at its other plants and is confident that its inherent philosophy of identifying and understanding problems will provide equally successful results at RBS.

In addition to the RBS initiatives directed towards overall performance improvements, the following attachments address the specific violations identified in IR 93-25.

## ATTACHMENT A

### REPLY TO A NOTICE OF VIOLATION IR 93-25

"Criterion V of Appendix B to 10CFR Part 50 states, in part, that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures or drawings."

#### VIOLATION RESPONSE SUMMARY

Contrary to the above criterion, NRC Notice of Violation IR 93-25(A) identifies five specific examples of related issues concerning the adequacy of instructions, procedures, and drawings. In addition to the general discussion below, a discussion specific to each issue is provided on the following pages which describe the specific corrective actions and status of issue resolution.

#### Root Cause

The Near Term Performance Improvement Plan (NTPIP) was developed to initiate immediate changes to address the root causes of performance issues necessary for the continued safe operation of River Bend Station (RBS). Assessments performed during the development of this plan identified four major root causes, of which the resolution of two, appropriately address those issues identified in IR 93-25-01. Performance improvement Initiatives to improve the adequacy of instructions, procedures, and drawings are contained in the Long Term Performance Improvement Plan (LTPIP) and were developed to solve the root causes of these concerns. The root causes are as follows:

- Management skills have not kept pace with level of change required
- Critical station work processes are inefficient and have allowed backlogs of work to occur

In the past, ineffective management skills and leadership led to an overall decline in performance in several areas. These inefficiencies allowed the development and utilization of cumbersome and inefficient work processes resulting in backlogs which further compounded the problems. In addition, frustration from utilization of inadequate processes, procedures, and drawings, may have led personnel to develop an attitude towards accepting



and working around problems rather than trying to identify and correct the issues.

Even though there are apparent human performance deficiencies associated with the identified issues, the majority are a result of the ineffectiveness of the underlying work processes. This conclusion was based on the results of Entergy Operations, Inc. (EOI) assessments and an external assessment addressing human performance issues at RBS. It was concluded that approximately 20% of these performance issues were based on self-checking and alertness with approximately 80% of the issues being a result of organizational and programmatic deficiencies. These conclusions indicate that the majority of the performance problems could be resolved by addressing underlying organizational and programmatic inefficiencies.

#### Corrective Actions

As presented at the March 22, 1994, RBS / NRC Management Meeting, the NTPIP and LTPIP include corrective actions to address the performance issues associated with the adequacy of documented instructions, procedures, and drawings. Plans to clarify and communicate management expectations are included in these corrective actions and place emphasis on identifying and correcting procedural problems in addition to communicating a need to strictly follow procedures.

In addition to communicating management expectations concerning procedural adequacy and adherence, EOI is implementing a Procedures Upgrade Program to streamline the entire procedure change process along with improvements directed to increase the technical adequacy and usability of procedures. To support these enhancements, procedure guidelines and standards are being developed to simplify procedure content and clarify hierarchy. Procedure owners have also been designated and will be held accountable in ensuring that their procedures meet management expectations.

In addition, an In-Service Testing (IST) Improvement Plan has been established to upgrade the technical adequacy and functionality of the program's test procedures. The plan will include an EOI self-assessment to review the program from a design basis perspective and implement any needed corrective actions.

Initiatives are scheduled to address inefficiencies within the Engineering organization to improve overall design and system engineering effectiveness. These initiatives will assess the adequacy of engineering procedures, standards, and guides for controlling engineering functions and programs. Also, an Engineering Work Management System will be implemented to

establish work load requirements to effectively manage engineering workloads at all levels of the engineering organization. Immediate corrective actions were directed at reducing backlogs of procedure and drawing changes and Modification Requests (MRs). These actions will allow resources to be focused on support of maintenance and plant operation and further assist in the implementation of process enhancements.

The NTPIP was implemented in October 1993 and activities will be completed during Refueling Outage 5. Currently many of these activities are complete. The LTPIP initiatives have been implemented and will continue until scheduled completion in 1996.

Specific corrective actions are addressed on the following pages.

## VIOLATION A.1

IR 93-25 states that "the licensee failed to prescribe activities affecting quality by documented instructions and drawings appropriate to the circumstances in that the documentation for identification of safety-related valves and their locked position did not accurately reflect all the appropriate valves installed in the plant" (01014).

### Reason For The Violation

Drawing and procedure revision processes were overly cumbersome and resulted in inadequate change reviews, increased backlogs, and long turn-around times. The combination of these factors, in addition with confusion associated with the numerous Modification Requests (MRs), resulted in inadequate control of the Locked Valve List procedure and associated design documentation.

### Corrective Steps That Have Been Taken And The Results Achieved

A review was performed concluding that the valves were in their correct locked positions. The discrepancies concerned Locked Valve List documentation. Drawing Change Notices 93-0511, 93-0512 and 93-0198 and MR 93-0130 were completed to correct inconsistencies with the Locked Valve List and applicable Piping and Instrumentation Drawings.

### Corrective Steps That Will Be Taken To Avoid Further Violations

Corrective actions concerning the technical adequacy of engineering procedures are being continued in accordance with Chapter 18 and Chapter 20, Section 2.3.8 of the LTPIP. As discussed in the Violation Response Summary, the LTPIP includes focused initiatives to improve the engineering organization and increase the technical adequacy of engineering documentation. LTPIP initiatives also include a Drawing and Procedure Upgrade Program (Chapter 20, Section 2.3.1 and Chapter 18 respectively) that addresses the overall adequacy of RBS site procedures. These initiatives are directed to improve the organizations and processes associated with site procedures and design documentation and prevent future recurrence of this and similar issues.

#### Date When Full Compliance Will Be Achieved

As discussed above, corrective actions associated with Locked Valve design documentation discrepancies have been completed. The applicable documentation and supporting programs are in compliance with Criterion V of Appendix B to 10CFR50. Long term corrective actions are being implemented and will continue to address problems associated with the adequacy of RBS site procedures. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.

## VIOLATION A.2

IR 93-25 states that "the licensee failed to prescribe activities affecting quality by documented instructions appropriate to the circumstances in that Procedure STP-204-4223, "ECCS-LPCI Pump B Discharge Pressure-High Monthly CHFUNCT, 18 month CHCAL, 18 month LSFT (E12-N055B, E12-N655B)", did not state that the pressure transmitter was required to be vented during the performance of a surveillance activity. The test could not be properly completed without performing the venting evolution" (01024).

### Reason For The Violation

Surveillance Test Procedure (STP) STP-204-4223 did not include specific venting instructions if air is suspected in the pressure transmitter. The general work practice was to generate a Maintenance Work Order (MWO) to vent the instrument but because the STP did not include specific instructions and due to the heightened awareness to procedural adherence, the technicians stopped the test and requested additional work instruction.

### Corrective Steps That Have Been Taken And The Results Achieved

STP-204-4223 was revised to incorporate transmitter venting instructions. In addition, a review was performed which identified 79 potential procedures that had instrument tubing configurations that may require additional transmitter venting instructions. The I&C procedure group evaluated each of the procedures adding instructions where needed. The review and revision of the applicable procedures is complete.

### Corrective Steps That Will Be Taken To Avoid Further Violations

The adequacy of procedures and written work instructions are currently being evaluated in accordance with Chapter 18 of the LTPIP. This evaluation will determine the level of detail required for procedures and work instructions to achieve the appropriate balance between the training based knowledge of the user and written direction included in the documentation. Based on the conclusions of a recent assessment, extensive detail in written instruction can lead to dependency on instruction details and decrease the emphasis on learned skills which form the basis of the STAR (Stop, Think, Act, Review) Program. This self-awareness program is being emphasized through communication of management expectations and is documented in station procedure, ADM-076, which was issued to provide verification methodology and self-check guidance to site personnel. Upon completion of the evaluation, STPs will be re-evaluated and revised accordingly.

Date When Full Compliance Will Be Achieved

Corrective actions have been completed concerning the filling and venting of temporary test equipment and the current procedures are in compliance with Criterion V of Appendix B to 10CFR50. Long term corrective actions have been implemented and will continue to address problems associated with the adequacy of RBS site procedures. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.



### VIOLATION A.3

IR 93-25 states that "the licensee failed to prescribe activities affecting quality by documented instructions appropriate to the circumstances in that Procedure STP-204-6302, "Division II LPCI (RHR) Pump and Valve Operability Test", did not specify that temporary test equipment should be attached to a structure. As a result of this procedure deficiency, a test gauge fell from atop system piping, became disconnected, and sprayed process fluid on the individuals observing the testing" (01034).

#### Reason For The Violation

An operator assigned to the IST Group was performing the subject STP and failed to properly secure the temporary test equipment. The implementing procedures did not include directions for installation and relied on user's knowledge to properly install and remove the equipment. However, there was no formal training on the installation of this equipment for operators assigned to the IST group.

#### Corrective Steps That Have Been Taken And The Results Achieved

Procedure STP-204-6302 was revised to require that temporary test equipment be secured to permanent plant structures upon installation. In addition, training on how to correctly install and remove temporary test equipment has been presented to operators during non-licensed operator continuing training and in practical training exercises conducted in the maintenance shop for operators assigned to the IST group. Procedure STP-204-6302 was subsequently conducted to meet the requirements of the IST Program.

#### Corrective Steps That Will Be Taken To Avoid Further Violations

The calibration frequency of some permanently installed gauges is being increased to meet the calibration standards of the IST Program which will help reduce reliance on temporary test equipment. In addition Chapter 18 and Chapter 20, Section 2.3.7 of the LTPIP provide initiatives that include a review and revision of similar procedures. These initiatives will include an assessment to determine the appropriate level of detail for test procedures and test instrumentation requirements. The IST STPs will be re-evaluated upon completion of the assessment and will be revised accordingly.

Date When Full Compliance Will Be Achieved

Corrective actions were completed resolving specific issues concerning the fill and vent of temporary test equipment bringing Procedure STP-204-6302 into compliance with Criterion V of Appendix B to 10CFR50. Long term corrective actions have been implemented and will continue to address problems associated with the adequacy of RBS site procedures. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.

#### VIOLATION A.4

IR 93-25 states that "the licensee failed to prescribe activities affecting quality by documented instructions appropriate to the circumstances in that Procedure STP-511-4514, "RMS-Main Plant Exhaust Duct Noble Gas Activity Quarterly CHFUNCT (1RMS\*RE125)", could not be performed in accordance with this approved procedure, which had been issued for implementation, because the test required the performance of 14 different operations within 30 seconds, which was physically impossible" (01044).

##### Reason For The Violation

STP-511-4514, "RMS-Main Plant Exhaust Duct Noble Gas Activity Quarterly CHFUNCT (1RMS\*RE125)", was incapable of being followed as written. The steps in question, had been interpreted as an aid to the performer to indicate that the alarms would occur within a 30 second time span and was not intended as a requirement for verification. Workers, knowledgeable on system operation, verified the steps and signed the test as complete based on this interpretation rather than the actual procedural steps.

##### Corrective Steps That Have Been Taken And The Results Achieved

Discussion with the manufacturer concluded that there was no requirement to verify the alarms within 30 seconds. It was also concluded that the test was acceptable as performed. These alarms will remain activated until actions are taken to clear the signals. Based on these conclusions, Procedure STP-511-4514 and other similar procedures, were revised to remove the 30 second time constraint.

##### Corrective Steps That Will Be Taken To Avoid Further Violations

The adequacy of procedures and written work instructions is currently being evaluated in accordance with Chapter 18 of the LTPIP. This evaluation will determine the level of detail required for procedures and work instructions to achieve the appropriate balance between the training based knowledge of the user and written direction included in the documentation. Based on the conclusions of a recent assessment, extensive detail in written instruction can lead to dependency on instruction details and decrease the emphasis on learned skills which form the basis of the STAR Program. This program is documented in station document, ADM-076, and was issued to provide verification and self-check guidance. The STPs will be revised as appropriate upon completion of the evaluation prior to the end of 1994.

Date When Full Compliance Will Be Achieved

Corrective actions were implemented to resolve the specific issue concerning the time constraints in Procedure STP-511-4514 and achieve compliance with Criterion V of Appendix B to 10CFR50. Long term corrective actions have been implemented and will continue to address problems associated with the adequacy of RBS site procedures. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.

## VIOLATION A.5

IR 93-25 states that, "the licensee failed to prescribe activities affecting quality by documented instructions appropriate to the circumstances in that Procedure STP-51-2409, "RMS-Main Control Room Ventilation Radiation Monitor Local Intake 18 Month CHCAL (RMS\*RE13A)", was made, on January 29, 1990, using a surveillance test comment control form, which was prohibited by Procedure ADM-0015, Revision 14" (01054).

### Reason For The Violation

Procedure ADM-0015, "Station Surveillance Test Program", allowed the use of a Comment Control Forms (CCFs) to correct typographical errors in STP steps that do not affect acceptance criteria. Procedure ADM-0015 did not adequately define "typographical error" which resulted in user interpretation of what circumstances justified the use of a CCF. In this specific case, the user incorrectly interpreted the procedure, and initiated the CCF to correct acceptance criteria wording.

### Corrective Steps That Have Been Taken And The Results Achieved

An investigation was performed to determine the potential impact of the proposed change described in the CCF and how it could have affected the acceptance criteria. The investigation concluded that the acceptance criteria were not compromised and that the equipment remained operable. In addition, CCFs associated with I&C Procedures were reviewed to ensure they were correctly used. This review identified several instances where CCFs were used where a Procedure Change Notice was appropriate. The use of CCFs for I&C procedure changes was immediately halted.

Procedure RBNP-001, "Develop, Control and Use of RBS Procedures", was subsequently revised to incorporate details on how a CCF can be used and when it should be implemented. The revision also changed the intent for the use of CCFs which bring proposed procedure changes to the attention of the designated procedure owner for review and subsequent initiation of appropriate change documents.

### Corrective Steps That Will Be Taken To Avoid Further Violations

Immediate corrective actions associated with the use of CCFs have been completed. However, an evaluation is currently being performed to determine the extent to which they can effectively be applied to I&C procedures. In addition, in accordance with LTPIP Chapter 18, an EOI QAT is currently evaluating the adequacy of procedures and written instructions.

#### Date When Full Compliance Will Be Achieved

Immediate corrective actions associated with this issue are complete and Procedure STP-51-2409, "RMS-Main Control Room Ventilation Radiation Monitor Local Intake 18 Month CHCAL (RMS\*RE13A)" is in compliance with Criterion V of Appendix B to 10CFR50. However, corrective actions to determine the extent to which CCFs can effectively be applied to I&C procedures is ongoing. In addition, long term corrective actions have been implemented and will continue to address problems associated with the adequacy of RBS site procedures. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.



## ATTACHMENT B

### REPLY TO A NOTICE OF VIOLATION IR 93-25

"Criterion XVI of Appendix B to 10CFR Part 50 states, in part, that measures shall be established to assure that conditions adverse to quality and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition."

#### VIOLATION RESPONSE SUMMARY

Contrary to the above criterion, NRC Notice of Violation IR 93-25(B) identified specific examples of related issues concerning identification and correction of nonconformances and conditions adverse to quality. In addition to the general discussion below, a discussion specific to each issue is provided on the following pages which describe the specific corrective actions and status of issue resolution.

#### Root Cause

The NTPIP was developed to initiate immediate changes to address the root causes of performance issues necessary for the continued safe operation of RBS. Assessments performed during the development of this plan identified four major root causes, of which the resolution of two, appropriately address those issues identified in IR 93-25-02. Performance improvement Initiatives to improve the processes underlying the identification and correction of nonconformances and conditions adverse to quality are contained in the LTPIP and were developed to solve the root causes of these concerns. The root causes are as follows:

- Problem identification and problem solving methods have not been consistently applied to improve performance
- Planning, goal setting, performance monitoring, and management feedback have not been effective

In the past, equipment problems and root causes were not effectively resolved resulting in increased backlogs of Maintenance Work Orders (MWOs), Modification Requests (MRs) and document changes. In addition, little emphasis was placed on identifying problems which resulted in the willingness of personnel to accept and live with problems and a decrease in problem identification performance.

### Corrective Actions

As presented at the March 22, 1994, RBS / NRC Management Meeting, the NTPIP and LTPIP include corrective actions to address the performance issues associated with the identification and resolution of nonconformances and conditions adverse to quality. Previous EOI assessments identified the need for more effective corrective actions and based on these conclusions, implemented several programs to immediately begin improving the Corrective Action Process.

Initial NTPIP efforts were to evaluate the safety significance, prioritize and reduce the number of open corrective actions, such as MWOs and MRs, which will be required to support an effective Corrective Action Program. The program enhancements incorporated improvements in the identification process and added methodology to perform effective root cause evaluations. In addition to the process enhancements, a dedicated group began the review of corrective actions to identify trends or repetitive issues and to validate the effectiveness of the completed corrective actions.

To increase management involvement in the corrective action process, the NTPIP actions provided the groundwork for development of several management review groups to be implemented under direction of the LTPIP. These review groups have been established to ensure that significant issues are brought to the attention of upper management. The Condition Review Group (CRG) reviews all Condition Reports (CRs) and identifies significant CRs requiring management attention. The significant CRs are then forwarded to the Corrective Action Review Board (CARB), made up of senior level management, to evaluate the root cause determinations for adequacy and to provide additional assurance that the corrective actions adequately address the issue to prevent recurrence of the problem. This methodology focuses management attention on the significant issues and prompts closure of the non-significant issues without additional burden on the system.

The NTPIP was implemented in October 1993 and activities will be completed during Refueling Outage 5. Currently many of these activities are complete. The LTPIP initiatives have been implemented and will continue until scheduled completion in 1996.

Specific corrective actions are addressed in the following pages.

## VIOLATION B.1

IR 93-25 states that "the licensee was aware, since plant startup in 1985, that spare breakers installed in safety and nonsafety-related motor control centers were not properly labeled to indicate the electrical load supplied by the breaker, if any, and did not initiate prompt actions to correct this nonconforming condition" (02014).

The above statement of the violation requires clarification concerning labeling of safety-related breakers in motor control centers. CR 93-0521 documented one breaker in a safety-related motor control center that was labeled as spare and closed. The breaker was correctly labeled and properly reflected in design documentation. No labeling problems were documented with breakers in safety-related motor control centers by either CR 93-0521 or CR 93-0777. The documented safety-related discrepancies were associated with electrical distribution panels.

### Reason For The Violation

Management placed a low priority on the low voltage distribution problem areas resulting in a lack of attention and committed resources. This lack of applied resources resulted in insufficient reviews of original plant design documentation and subsequent design changes. This resulted in inconsistencies between component labeling, plant procedures and drawings.

In addition, the revision processes were overly cumbersome resulting in inadequate change reviews and backlogs that created long turn-around times. In addition to living with these cumbersome processes, lack of management attention also resulted in poor work prioritization which compounded the problems associated with these processes. The combination of these factors resulted in the inadequate configuration control of plant electrical breakers as evidenced by the inconsistencies identified in the violation between electrical breaker labeling, procedure information and design documentation.

### Corrective Steps That Have Been Taken And The Results Achieved

An internal audit of safety-related 120 VAC electrical breakers and electrical breakers greater than 480 VAC was performed by Operations, in July 1993. A subsequent audit of the nonsafety-related 120 VAC breakers was performed in November 1993. The audits revealed discrepancies between breaker labeling and the breaker information contained in Operations procedures. These discrepancies were submitted to engineering for

resolution. The audits and findings are documented in CR 93-0521 and CR 93-0777, respectively.

Currently the distribution breaker issues documented by CR 93-0521 and CR 93-0777 have been dispositioned and immediate corrective steps completed except for design documentation changes. These changes are being implemented by MR 93-0109, which is in progress, and will correct safety and nonsafety-related breaker labeling deficiencies noted in the above CRs. The Operations procedures involved have been revised and corrected.

A subsequent audit of safety and non-safety related 120 VAC, 125 VDC, 480 VAC, 4160 VAC, and 13.8 kV distribution breakers was performed in April 1994. Lighting panels have not been included in any of these reviews. Although the findings from this audit confirmed improvements in breaker labeling and verified the amended breaker information contained in the revised Operations procedures, a few new problems were identified. These problems are currently being addressed.

#### Corrective Steps That Will Be Taken To Avoid Further Violations

MR 93-0109 will complete corrective actions required by CR 93-0521 and CR 93-0777.

In accordance with Section 1.3 of the NTPIP, a Plant Labeling Upgrade Program has been implemented which proceduralized a plant labeling standard to upgrade existing plant equipment labels. This program will improve plant labeling requirements and avoid the recurrence of similar issues. Section 7.3 of the NTPIP has also provided initiatives to reduce engineering backlogs which include a review to prioritize and implement outstanding MRs.

In addition, management review groups have been established in accordance with Chapter 10 of the LTPIP. As described in the Violation Response Summary, the CRG and CARB will provide management level reviews of CRs to evaluate root cause determinations and provide additional assurance that significant issues are brought to the attention of management and that corrective actions adequately address the root causes to prevent recurrence. Chapter 20 of the LTPIP implements several initiatives to improve the technical adequacy of engineering procedures and enhance configuration control processes. These initiatives include an evaluation of configuration management issues from the past two years to ensure that critical operations drawings accurately reflect plant design and implementation of an Engineering Review Committee to improve the quality and depth of engineering and operability evaluations.

#### Date When Full Compliance Will Be Achieved

As discussed above, with the exception of MR 93-0109, the immediate corrective actions associated with CR 93-0521 and 93-0777 are complete. Subsequent inspection efforts are ongoing and will validate the completed corrective actions. LTPIP initiatives, as described above, have been implemented and will continue to provide improvements to the RBS Corrective Action Program. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.

## VIOLATION B.2

IR 93-25 states that "the licensee was aware, since 1992, that the emergency stop button for the diesel generator was inadvertently depressed on two occasions and resulted in the shutdown of the diesel and did not implement prompt corrective actions to correct this nonconforming condition" (02024).

### Reason for Violation

Upon identification of the issue in 1992, documentation was prepared to paint the emergency stop buttons in question and place a warning sign nearby. The buttons had been painted, but due large design change backlogs and management's inattention to the plant material condition, the signs were designated low priority and were not installed. In addition, the corrective actions that were identified did not provide adequate resolution to prevent recurrence.

### Corrective Steps That Have Been Taken And The Results Achieved

Modification Request (MR) 93-0096, which installed protective covers on the Division I and II emergency diesel generator emergency stop buttons, has been completed. This issue was not applicable to the Division III diesel.

In accordance with Section 2.3.1 of the NTPIP, the Minor Modification Program has been revised to improve the process efficiency resulting in a less cumbersome method of implementing minor plant changes such as those associated with this issue. These changes will help maintain a reduced backlog and should decrease the burden on the system. In addition, Section 2.3.2 of the NTPIP, directed activities to prioritize and complete high priority minor modifications to reduce backlogs and support the new streamlined minor modification process.

In addition to these NTPIP initiatives, management review groups have been established in accordance with Chapter 10 of the LTPIP. As described in the Violation Response Summary, the CRG and CARB will provide management level reviews of CRs to evaluate root cause determinations and provide additional assurance that corrective actions adequately address the concerns to prevent recurrence.



#### Corrective Steps That Will Be Taken To Avoid Further Violations

The corrective action installing the emergency diesel generator emergency stop button covers is complete. However, the CRG and CARB reviews are ongoing processes and will continue to address problems and ensure adequate resolution.

#### Date When Full Compliance Will Be Achieved

As discussed above, corrective actions associated with this specific issue are complete. Long term corrective actions have been implemented and will continue to provide improvements to the RBS Corrective Action Program. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.

### VIOLATION B.3

IR 93-25 states that "the licensee identified, on three occasions since 1991, that access was required to Valve 1E12\*VF063C, which was located approximately 20 feet above the floor. The licensee initiated corrective actions to resolve this nonconforming condition; however, the corrective actions taken by the licensee did not preclude repetition of this nonconforming condition" (02034).

#### Reason for Violation

Corrective actions required permanent installation of a ladder in the area of the valve, suitable in length to operate the valve. Subsequent to the installation, personnel replaced the existing ladder with one of insufficient length. Administrative controls in place to dedicate and stage a ladder in the area were ineffective to prevent its removal. In addition, the corrective actions initiated to resolve the valve accessibility issue did not consider the post-accident environmental conditions in the area of the valve which would have made it hazardous to utilize a ladder during emergency conditions for which it was intended.

#### Corrective Steps That Have Been Taken And The Results Achieved

A review and walkdown of Emergency Operating Procedure EOP-0005, "Enclosures", which includes operator contingency actions outside the control room, was performed to identify requirements for equipment such as ladders and tools which had been specifically called for in the procedure. The review and walkdown did not identify any similar component discrepancies but EOP-0005 was subsequently revised to clarify requirements and incorporate human factors considerations.

Interim corrective actions, prior to installation of a chain operator that can be operated from floor level, placed a ladder in the designated area and installed a sign indicating it was required during emergency operations.

In addition to these immediate corrective actions, management review groups have been established in accordance with Chapter 10 of the LTPIP. As described in the Violation Response Summary, the CRG and CARB will provide management level reviews of CRs to evaluate root cause determinations and provide additional assurance that corrective actions adequately address the root causes to prevent recurrence.

#### Corrective Steps That Will Be Taken To Avoid Further Violations

A chain operator that allows operation from floor level will be installed, per MWO 179419, during Refueling Outage 5. In addition to completion of this modification, no further action is required concerning emergency access to Valve 1E12\*VF063C. However, the CRG and CARB reviews are ongoing processes and will continue to address problems and ensure that root cause are adequately identified and corrective actions prevent recurrence.

#### Date When Full Compliance Will Be Achieved

As discussed above, corrective actions associated with Valve 1E12\*VF063C will be complete by the end of Refueling Outage 5. Long term corrective actions have been implemented and will continue to provide improvements to the RBS Corrective Action Program. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.

#### VIOLATION B.4

IR 93-25 states that "the licensee was aware, since 1990, that a nonconformance existed with the wide-range suppression pool water level indicator in that the meter scale was incorrect and did not promptly correct the nonconforming condition" (02044).

##### Reason for Violation

CR 86-1434 was initiated to document a discrepancy between the actual suppression pool wide range level instrumentation capability and the control room displayed instrument range scale. MR 86-1844 was developed to correct the instrumentation discrepancy, but due to design change backlogs and management's willingness to work around problems, it was designated low priority and subsequently postponed. After the MR was postponed, EOPs were subsequently revised to reflect a suppression pool level above the bottom of the suppression pool. This change was inconsistent with the completed design package and required a complete redesign to reflect the new design requirements which further delayed its implementation.

##### Corrective Steps That Have Been Taken And The Results Achieved

As a result of an operability evaluation, Operator-Aids were added as a precautionary measure until the MR could be implemented. In addition, the MR package was revised to incorporate the latest design information.

In addition to these immediate corrective actions, Section 7.3 of the NTPIP has provided initiatives to reduce engineering backlogs which included a review to prioritize and implement open MRs. Management review groups have also been established in accordance with Chapter 10 of the LTPIP. As described in the Violation Response Summary, the CRG and CARB will provide management level reviews of CRs to evaluate root cause determinations and provide additional assurance that corrective actions adequately address the root causes to prevent recurrence.

##### Corrective Steps That Will Be Taken To Avoid Further Violations

The MR is currently scheduled for implementation during Refueling Outage 5 and will complete the corrective actions associated with the suppression pool level instrumentation. However, as discussed in the Violation Response Summary, the CRG and CARB reviews are ongoing processes and will continue to address problems and ensure that root causes are adequately identified and corrective actions prevent recurrence.

#### Date When Full Compliance Will Be Achieved

As discussed above, corrective actions associated with this specific issue will be completed by the end of Refueling Outage 5. Long term corrective actions have been implemented and will continue to provide improvements to the RBS Corrective Action Program. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.

## VIOLATION B.5

IR 93-25 states that "the licensee identified that the distribution system for safety-related procedures did not provide the correct procedure revision to personnel performing plant activities and did not take appropriate corrective actions to preclude repetition in that the incorrect revision of the same procedure was issued for use two subsequent months in a row" (02054).

The above statement of the violation requires clarification concerning the issuance of incorrect procedure revisions. The distribution system for "working copies" of plant procedures was the cause of the problem and not that for the distribution of safety-related procedures. The incorrect procedure revision was not issued two subsequent months but the field copies of the procedure in question was not updated for two subsequent months when the procedure was revised.

### Reason for Violation

Administrative controls for the field procedure list, maintained by the Shift Clerk, were inadequate. In addition, individuals using the procedure failed to comply with station procedures regarding verification of procedure revision prior to use. The corrective actions determined after the first event adequately identified the problem but were not implemented in time to prevent the second occurrence.

### Corrective Steps That Have Been Taken And The Results Achieved

The field procedure books containing the working copies of the procedures involved were removed from the field. In addition, the procedure in question was reviewed to determine if any incorrect actions occurred as a result of the incorrect revision and to determine if any other incorrect revisions existed. The review concluded that the correct revision incorporated an existing Change Notice and that the only differences were editorial. There were also no other incorrect procedure revisions found.

The Field Procedure List has been placed under control of the Operations Coordinator which will help ensure that the list is updated accurately. A tracking system has also been developed and implemented to ensure that all procedures on the list are updated in a timely manner. In addition, training has been conducted on this incident to reinforce the individual responsibilities regarding the use of procedures in the field.



#### Corrective Steps That Will Be Taken To Avoid Further Violations

No further action concerning the Field Procedure List is required. However, a Procedure Upgrade Program has been implemented in accordance with Chapter 18 of the LTPIP to improve the overall adequacy and controls associated with all site procedures.

#### Date When Full Compliance Will Be Achieved

As discussed above, corrective actions associated with this specific issue are complete and administrative controls have been improved to prevent recurrence. Long term corrective actions have been implemented and will continue to provide improvements to the RBS Corrective Action Program. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.

## VIOLATION B.6

IR 93-25 states that "the licensee experienced numerous failures of the containment airlock door seals since 1985 and has not taken appropriate corrective actions to preclude repetition in that the seals have failed an average of five per year since 1985" (02064).

### Reason for Violation

Lack of management attention to long-standing equipment problems and inadequate root cause determination resulted in ineffective corrective actions that led to repetitive failures of the airlock door seals. In the airlock vendor documentation the vendor recommends the normal, post-accident, seal pressure to be less than 90 psi. An interpretation of a vendor qualification report concluded that the acceptable system pressure was less than 125 psi, which is greater than the supply air system pressure. Based on this interpretation, it was never concluded that the instrument air system pressure, which is greater than the recommended 90 psi pressure, was the cause of the seal blisters.

Subsequent discussion with the vendor determined that the 125 psi air system pressure was the cause for the blisters and recommendations were made to install pressure regulators to reduce seal pressure. However, an MR implementing this recommendation was never approved and was placed in the System Enhancement File (SEF).

### Corrective Steps That Have Been Taken And The Results Achieved

Interim corrective actions included an increase in the appropriate Preventative Maintenance inspection frequency to identify seal degradation. This, along with normal seal surveillance, provided assurance that the seals remained functional. Subsequently, MR 93-0071 was approved for implementation during Refueling Outage 5 and will install pressure regulators to reduce the instrument air pressure supplied to the seals to 60 psi.

In addition to these immediate corrective actions, management review groups have been established in accordance with Chapter 10 of the LTPIP to ensure that significant issues are brought to their attention. As described in the Violation Response Summary, the CRG and CARB will provide management level reviews of CRs to evaluate root cause determinations and provide additional assurance that corrective actions adequately address the root causes to prevent recurrence.

#### Corrective Steps That Will Be Taken To Avoid Further Violations

MR 93-0071 will be implemented during Refueling Outage 5. In addition, the seal manufacturer stated that the seals are being redesigned to extend seal life and will be available for industry use in mid to late 1994. RBS will evaluate the new seals at that time.

In accordance with Chapter 20, Section 2.2.8 of the LTPIP, the SEF will be phased out by the end of Refueling Outage 5. Currently, all plant changes are presented to the Change Review Board (CRB), which was implemented in accordance with Chapter 3, Section 1.4 of the LTPIP, to improve work management controls. The CRB is a centralized projects group and is responsible for approving and scheduling all site work activities. To close out the SEF, all issues previously contained in the files will be returned to the appropriate engineer for either presentation to the CRB or deferral.

#### Date When Full Compliance Will Be Achieved

As discussed above, all corrective actions associated with the airlock door seals will be completed by the end of Refueling Outage 5. Long term corrective actions have been implemented to provide continued improvements of the RBS Corrective Action Program. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.

## VIOLATION B.7

IR 93-25 states that " the licensee was aware, since 1987, of the continued failure of the flow switches in the sample lines for Radiation Monitors RMS\*RE-11A and 11B and did not take appropriate actions to preclude repetition of the flow switch failures" (02074).

### Reason for Violation

Lack of management involvement in the corrective action process led to repetitive radiation monitor flow switch failures. Previous corrective actions were to perform a like-for-like replacement of the flow switch without addressing the root cause of the switch failure. Detailed reviews, subsequent to the OSTI, determined that the as-designed switch was not adequate for the application. In addition, the corrective action process failed to address the repetitive failures.

### Corrective Steps That Have Been Taken And The Results Achieved

MR 88-0293 is currently being developed and has been and scheduled to be implemented during Cycle 6.

In addition to these immediate corrective actions, management review groups have been established in accordance with Chapter 10 of the LTPIP to ensure that significant issues are brought to their attention. As described in the Violation Response Summary, the CRG and CARB will provide management level reviews of CRs to evaluate root cause determinations and provide additional assurance that corrective actions adequately address the root causes to prevent recurrence.

### Corrective Steps That Will Be Taken To Avoid Further Violations

MR 88-0293 will be implemented during Cycle 6 to replace current flow switches with a flow switch appropriately designed for the application. The modification will also include indication for loss of function.

As discussed in the Violation Response Summary, the CRG and CARB reviews are ongoing processes and will continue to address problems and ensure that root causes are adequately identified and corrective actions prevent recurrence.

Date When Full Compliance Will Be Achieved

As indicated above, MR 88-0293 is planned for implementation during Cycle 6 and will complete the corrective actions required to resolve the specific issue. Long term corrective actions have been implemented to provide continued improvement for the RBS Corrective Action Program. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.