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May 13, 2010

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

SSW-NRC - 00001

SUBJECT: SHAW RESPONSE TO NRC INSPECTION REPORT NO. 99901387/2009-201, NOTICE OF VIOLATION, NOTICE OF NONCONFORMANCE, AND UNRESOLVED ITEM, DATED APRIL 22, 2010

Attached is the Shaw response to NRC Inspection Report No. 99901387/2009-201. We have evaluated the following and provide our responses in Enclosures 1 through 6, respectively.

Notice of Violation:	99901387/2010-201-01
Notices of Nonconformance:	99901387/2010-201-02
	99901387/2010-201-04
	99901387/2010-201-05
	99901387/2010-201-06
Unresolved Item:	99901387/2010-201-03

We trust you will find this information satisfactory. Should you have any questions, please contact:

Mr. John Oddo at 617 589 8236 or john.oddo@shawgrp.com

Very truly yours,

D P Barry

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President
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cc: Chief
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NRO

ENCLOSURE ONE

REPLY TO NOTICE OF VIOLATION 99901387/2010-201-01

NOTICE OF VIOLATION

During a U.S. Nuclear Regulatory Commission (NRC) inspection conducted at the Shaw Nuclear Services (Shaw), facility in Charlotte, North Carolina on March 1 - 5, 2010, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

> Title 10, Section 21.21, "Notification of Failure to Comply or Existence of a Defect and Its Evaluation," of the *Code of Federal Regulations* (CFR), paragraph 21.21(a), requires, in part, that each individual, corporation, partnership, or other entity subject to 10 CFR Part 21 shall adopt appropriate procedures to evaluate deviations and failures to comply associated with substantial safety hazards as soon as practicable.
>
> Paragraph 21.21(a)(1) requires that deviations and failures to comply be evaluated within 60 days of discovery in order to identify a reportable defect or failure to comply that could create a substantial safety hazard were it to remain uncorrected.
>
> Contrary to the above, as of March 5, 2010, Shaw's implementing procedure Quality Standard (QS) 16.3, "Identifying and Reporting Defects and Failures to Comply Under 10CFR21," did not provide procedural guidance for evaluating deviations and failures to comply associated with substantial safety hazards within 60 days of discovery. Specifically, the NRC inspection team determined that procedure QS 16.3 allowed for an evaluation outside of the 60-day evaluation period required by 10 CFR 21.21(a)(1), and included definitions that differed from those provided in 10 CFR 21.3, "Definitions," and altered the intended meaning of the terms.

This issue has been identified as Violation 99901387/2010-201-01.

1. REASON FOR THE VIOLATION

This violation identifies two issues:

A. IDENTIFICATION PHASE OUTSIDE THE 60 DAY PERIOD

NRC states in Enclosure 3, under "Report Details", Page 5, Section b.2, "10 CFR Part 21 Procedure", 1st paragraph in the section, that the wording of Quality Standard (QS) 16.3 for the "identification phase" includes "how it may relate to a substantial safety hazard" and therefore NRC "considers this activity to be a part of the 60-day evaluation period"

The wording "how it may relate to a substantial safety hazard" was included in QS 16.3 for the Identification Phase to allow the Initiator to include any information known to him/her or that had been identified, regarding a link to a Substantial Safety Hazard, that would be useful to the

Initial Reviewer. The Identification Phase did not include a review or other evaluation of the condition, only that the condition was identified. It did not establish a requirement to provide information not initially known to be linked to a Substantial Safety Hazard.

B. DEFINITIONS THAT DIFFERED FROM 10 CFR 21.3

NRC states in Enclosure 3, under "Report Details", Page 6, Section b.2, "10 CFR Part 21 Procedure", 2nd paragraph on the page, that The NRC inspection team also identified that some of the definitions provided in QS 16.3 were not consistent with the regulations. Specifically, QS 16.3 provides definitions including, but not limited to, discovery, potential defect, and potential noncompliance. These definitions differed from those provided in 10 CFR 21.3 and altered the intended meaning of the terms.

Additional wording was added to certain definitions in QS 16.3 to provide additional explanation to guide the performer, not to alter the intended meaning of the terms. These were believed to be enhancements to the 10 CFR 21.3 definitions, not alterations.

2. CORRECTIVE STEPS THAT HAVE BEEN TAKEN AND RESULTS ACHIEVED

- CAR 2010-04-29-558 was written to address evaluations outside the 60 day period
  This CAR documents the need to revise QS-16.3 to clarify the evaluation process and ensure the evaluation to identify a reportable defect or failure to comply that could create a substantial safety hazard, is done within 60 days from the time of discovery.

  The revision of QS 16.3 removes the words "how it may relate to a Substantial Safety Hazard" to remove any perception that a review or evaluation related to a Substantial Safety Hazard is to be performed. Therefore the Identification Phase is clearly excluded from the 60 day evaluation period.

  This results in removing any ambiguity from the standard, regarding the actions taken during the Discovery period and will ensure compliance with 10 CFR Part 21.

- CAR 2010-03-05-469 was written to address the use of non-verbatim definitions in QS 16.3. This CAR documents the need to revise QS-16.3 definitions. All identified definitions in QS 16.3 were subsequently revised and now conform to 10 CFR 21.3.

  This results in the definitions now consistently reflecting the 10 CFR Part 21 definitions and will eliminate any potential that the intent will be altered.

3. CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

- QS 16.3 was revised to incorporate the Corrective Actions identified in both CARs.

4. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

- QS 16.3 was revised on 05/11/10.

ACKNOWLEDGMENT OF NRC DISCOVERY PHASE STATEMENTS

Shaw acknowledges the NRC statements about the QS 16.3 Initial Review Phase time period in Enclosure 3, under "Report Details", Page, Section b.2, "10 CFR Part 21 Procedure", Page 6 first paragraph and agrees with the NRC assessment of the need to clarify this area of 10 CFR 21.

ENCLOSURE TWO

REPLY TO NOTICE OF NONCONFORMANCE 99901387/2010-201-02

NOTICE OF NONCONFORMANCE

Based on the results of a U.S. Nuclear Regulatory Commission (NRC) inspection conducted at the Shaw Nuclear Services (Shaw), facility in Charlotte, North Carolina on March 1 - 5, 2010, certain activities were not conducted in accordance with NRC requirements which were contractually imposed on Shaw by NRC licensees:

A. Criterion III, "Design Control," of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to Title 10 of the *Code of Federal Regulations* (10 CFR Part 50), "Domestic Licensing of Production and Utilization Facilities," states, in part, that measures shall be established to assure that applicable regulatory requirements and the design basis are correctly translated into specifications, drawings, procedures, and instructions. These measures shall include provisions to assure that appropriate quality standards are specified and included in appropriate design documents.

Criterion III also states, in part, that design changes shall be subject to design control measures commensurate with those applied to the original design and be approved by the original design organization.

"Standard Nuclear Quality Assurance Program," SWSQAP 1-74A, Revision B, Section 3, "Engineering and Design Control," states, in part, that design activities, documents, and interfaces shall be controlled to assure that applicable inputs such as design bases, regulatory requirements, codes, and standards are correctly translated to the final design. Changes to design documents shall be approved by the same individuals or groups that are responsible for approval of the documents.

Contrary to the above, Shaw did not utilize the design change process to obtain prior Westinghouse approval for the use of the different revisions of the industry standards and the regulatory guide in Design Specification APP-CC01-Z0-026, "Safety-Related Mixing and Delivering Concrete," Revision 2, Design Specification APP-CC01-Z0-027, "Safety-Related Concrete Testing Services," Revision 1, and Calculation APP-G1-EWC-002, "Calculation, Development of Power Cable Ampacities," Revision 1. In addition, Shaw did not specify the correct revisions or editions of industry standards and a regulatory guide in the design documents above.

This issue is identified as Nonconformance 99901387/2010-201-02.

1. REASON FOR THE NONCOMPLIANCE

The design change process was not used to obtain prior approval. The current version of the Industry Standards and RG 1.29 were referenced without taking into account that they may be different than those required by the AP1000 program.

2. CORRECTIVE STEPS THAT HAVE BEEN TAKEN AND RESULTS ACHIEVED

CAR 2010-03-04-464 was written to investigate and document the resolution of the different revisions of Industry Standards.
CAR 2010-03-05-471 was written to investigate document the resolution of the different revisions of RG 1.29.

The project issued immediate notification to the engineering staff of the events to reinforce adherence to the procedural requirements

A Design Change Proposal has been initiated to address the conditions identified in CAR 2010-03-04-464

3. CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID NONCOMPLIANCE

The specifications referenced in CAR 2010-03-04-464 and CAR 2010-03-05-471 were removed from use.

As part of our Corrective Action Process, a sample of other documents will be reviewed to determine if a similar condition exists and any others will be addressed.

4. DATE WHEN CORRECTIVE ACTIONS WILL BE COMPLETED

The Specifications were removed from use on 5/11/10.

ENCLOSURE THREE

REPLY TO NOTICE OF NONCONFORMANCE 99901387/2010-201-04

NOTICE OF NONCONFORMANCE

B. Criterion VII, "Control of Purchased Material, Equipment, and Services," of Appendix B to 10 CFR Part 50 states, in part, that measures shall be established to assure that purchased material, equipment, and services conform to the procurement documents. These measures shall include provisions, as appropriate, for source evaluation and selection, objective evidence of quality furnished by the contractor or subcontractor, inspection at the contractor or subcontractor source, and examination of products upon delivery.

SWSQAP 1-74A, Section 7, "Control of Purchased Material, Equipment, and Services," states, in part, that controls to ensure that purchased material, equipment, and services conform to procurement documents and shall include supplier evaluation and selection including quality evaluations and ratings, periodic source assessments and inspections, audits, and site receiving inspections as applicable.

Contrary to the above, Shaw placed a safety-related purchase order for calibration services of measuring and test equipment without performing a supplier qualification audit.

This issue is identified as Nonconformance 99901387/2010-201-04.

1. REASON FOR THE NONCOMPLIANCE

The reasons for the noncompliance are as follows:

A. The scope of work for offsite M&TE calibrations was included as part of Purchase Order No. 546009 which incorrectly required the vendor to have a QA Program meeting the requirements of 10 CFR 50, Appendix B/ASME NQA-1-1994, w/1995 Addendum, as well as requiring a program in place for compliance with the reportability requirements of Part 21 to Title 10 of the Code of Federal Regulations (10 CFR 21).

B. Metrology Standard 1.9 "Procurement of M&TE and Calibration Services" did not address procurement of commercial calibration services from commercially accredited labs who are qualified based solely on their accreditation by the National Voluntary Accreditation Program (NVLAP), the American Association for Laboratory Accreditation (A2LA), or another accrediting body recognized by NVLAP through the International laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA).

C. Metrology Standard 1.5 "Preparation of Calibration Checklists and M&TE History Cards" did not address the requirements, which Shaw Nuclear must verify, to ensure that the requirements of paragraph 1.3.5 of Section 7 to SWSQAP 1-74A, Revision B are satisfied prior to use of M&TE in safety related activities that have been calibrated by commercially accredited labs.

2. CORRECTIVE STEPS THAT HAVE BEEN TAKEN AND RESULTS ACHIEVED

Corrective Action Report (CAR) No. 2010-03-04-465 was initiated to address the Nonconformance. Additionally, the Vogtle Site QC Manager was immediately notified of the Nonconformance and has restricted the use of any calibrated M&TE to non-safety related use. Further, the Nuclear QA Manager and QA Audit Program Manager were directly engaged with the NRC Inspection Team during the Inspection and have taken measures to revise the Shaw Nuclear Quality Rating List (QRL) to indicate that, for any calibration labs on the QRL who are qualified based solely on their NVLAP/A2LA accreditation, the labs are approved only for non-safety related services. The QRL was revised accordingly on 3/11/10.

3. CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID NONCOMPLIANCE

A. Vogtle Site Purchase Order No. 546009 will be revised to identify the services provided by the vendor as commercial calibration services; to remove the requirements that the vendor have a QA Program meeting the requirements of 10CFR50, Appendix B/ASME NQA-1-1994; to remove the requirement for a program for compliance with the reportability requirements of Part 21 to Title 10 of the Code of Federal Regulations (10CFR21); and to remove the note that this procurement is QA category I.

B. Metrology Standard 1.9 will be revised to address procurement of commercial calibration services from commercially accredited labs that are qualified based solely on their accreditation by NVLAP, A2LA, or another accrediting body recognized by NVLAP through the International laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA).

C. Metrology Standard 1.5 will be revised to identify the requirements, which Shaw Nuclear must verify, to ensure that the requirements of paragraph 1.3.5 of Section 7 to SWSQAP 1-74A, Revision B are satisfied prior to use of M&TE in safety related activities that have been calibrated by commercially accredited labs.

4. DATE WHEN FULL CORRECTIVE ACTIONS WILL BE COMPLETED

A. Revision to Vogtle Site Purchase Order No. 546009 was completed 5/12/10.

B. Metrology Standard 1.9 was revised on 5/11/10.

C. Metrology Standard 1.5 was revised on 5/11/10.

ENCLOSURE FOUR

REPLY TO NOTICE OF NONCONFORMANCE 99901387/2010-201-05

NOTICE OF NONCONFORMANCE

C. Criterion VII, "Control of Purchased Material, Equipment, and Services," of Appendix B to 10 CFR Part 50 states, in part, that measures shall be established to assure that purchased material, equipment, and services conform to the procurement documents. These measures shall include provisions, as appropriate, for source evaluation and selection, objective evidence of quality furnished by the contractor or subcontractor, inspection at the contractor or subcontractor source, and examination of products upon delivery.

Criterion XVIII, "Audits," of Appendix B to 10 CFR Part 50 states that a comprehensive system of planned and periodic audits shall be carried out to verify compliance with all aspects of the quality assurance program and to determine the effectiveness of the program.

Criterion V, "Instructions, Procedures, and Drawings," of Appendix B to 10 CFR Part 50 states 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.

SWSQAP 1-74A, Sections 7, "Control of Purchased Material, Equipment, and Services," states, in part, that controls to ensure that purchased material, equipment, and services conform to procurement documents and shall include supplier evaluation and selection including quality evaluations and ratings, periodic source assessments and inspections, audits, and site receiving inspections as applicable. SWSQAP 1-74A, Section 18, "Audits and Surveillances," states, in part, that an audit program shall be established to ensure that quality activities comply with SWSQAP 1-74A and related procedures, to determine the effectiveness of the quality assurance program. SWSQAP 1-74A, Section 5, "Instructions, Procedures, and Drawings," states, in part, that quality activities shall be based on specifications, drawings, procedures, and instructions. These documents shall indicate any necessary special process controls, the applicable codes and standards, and qualitative and quantitative acceptance criteria.

Contrary to the above, the Shaw audit process for external and internal audits does not have implementing procedures governing the scheduling and processing of internal and external audits, including the tracking of audit open items to closure.

DISCUSSION:

The Notice of Nonconformance statement: "....the Shaw audit process for external and internal audits does not have implementing procedures governing the scheduling and processing of internal and external audits, including the tracking of audit open items to closure" is not entirely accurate.

Shaw has had, and continues to have in place the following Quality Assurance Directives (QADs): QAD 7.17, "Supplier and Contractor QA Program Manual Reviews and Qualification

Audits", QAD 18.1, "Quality Assurance Internal Audits", and QAD 18.11, "Post Award QA Audits of Sellers & Site Contractors" which govern the scheduling and processing of internal and external audits. We agree, however, that the QADs at the time of the NRC Inspection did not adequately address the tracking of audit open items to closure.

1. REASON FOR THE NONCOMPLIANCE

Our detailed review has determine that there are two separate but related conditions that need to be addressed, as follows

A. QAD 18.1 "Quality Assurance Internal Audits" provided detailed and specific actions that must be taken if objective evidence of completion of corrective and preventive actions for internal audit findings is not received timely; however, less formal actions were specified for when responses to internal audit findings are delinquent.

B. Our QADs did not provide requirements for tracking the status of responses to audit findings, the status of corrective and preventive actions, and audit finding closure. It is noted, however, that such a tracking system has been implemented for many years; however, it had not been proceduralized.

We have determined that the reason for the Noncompliance (Item A) is attributable to the fact that, when QAD 18.1 was revised to provide detailed and specific actions that must be taken if objective evidence of completion of corrective and preventive actions for internal audit findings is not received timely, the Audit Program Manager failed to recognize the need to apply similar criteria to overdue responses to audit findings.

We have determined that the reason for the Noncompliance (Item B) is attributable to the fact that the Audit Program Manager failed to realize that, in order to ensure consistency of application of any process, it needs to be proceduralized.

2. CORRECTIVE STEPS THAT HAVE BEEN TAKEN AND RESULTS ACHIEVED

Corrective Action Report (CAR) No. 2010-03-05-468 was initiated to address the Nonconformance. As a result of the CAR, Quality Assurance Directives (QADs) 7.17, 18.1 and 18.11 have been revised to:

- Provide detailed and specific actions that must be taken if responses to internal audit findings are delinquent (consistent with the detailed and specific actions that must be taken if objective evidence of completion of corrective and preventive actions for internal audit findings is not received timely), and

- Proceduralize the requirements for tracking the status of responses to audit findings, the status of corrective and preventive actions, and audit finding closure.

3. CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID NONCOMPLIANCE

The Audit Program Manager, by virtue of having revised our procedures to address this nonconformance, is now fully aware of the attention to detail that has to be applied to the establishment of procedural requirements.

4. DATE WHEN FULL CORRECTIVE ACTION WILL BE COMPLETED

All required action has been completed. Revisions to the affected procedures (QADs 7.17, 18.1, and 18.11) were issued on 4/28/10.

ENCLOSURE FIVE

REPLY TO NOTICE OF NONCONFORMANCE 99901387/2010-201-06

NOTICE OF NONCONFORMANCE

D. Criterion XVI, "Corrective Action," of Appendix B to 10 CFR Part 50 states that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, 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. The identification of the significant condition adverse to quality, the cause of the condition, and the corrective action taken shall be documented and reported to appropriate levels of management.

SWSQAP 1-74A, Section 16, "Corrective Action," states that the corrective action program shall provide for prompt identification, documentation, classification, and correction of the conditions. Section 16 further states, in part, that corrective action taken to correct deficient conditions discovered by inspection, test, or audits shall be verified by reinspection, retesting, subsequent audits including corrective action audits, or the review of corrective action documentation to assure that the agreed upon corrective action has been satisfactorily implemented. The area of concern shall be re-audited in a timely manner to assure that the corrective action has been accomplished.

Quality Standard (QS) 16.5, "Corrective Action System," defines roles and responsibilities, internal reviews, and timeliness requirements to address non-hardware discrepant conditions such as inconsistencies, failures to comply, omissions, or deficiencies. In addition, QS 16.5 contains detailed instructions on how to classify discrepancies as 1) a significant condition adverse to quality (SCAQ), 2) a condition adverse to quality (CAQ), 3) a non-condition adverse to quality, and 4) a negligible consequence non-condition adverse to quality and contains detailed implementing instructions on how to evaluate each class of deficiency.

Contrary to the above, Shaw's corrective action program lacks measures to ensure that 1) CAQs and SCAQs identified through the internal audit process are classified, and evaluated, consistent with QS 16.5, and 2) corrective actions for internal audit findings are received and promptly corrected. In addition, Shaw failed to implement effective corrective actions related to engineering good practices and attention to detail as identified in two different internal audits and failed to address and correct the identified CAQ in CAR 2009-03-19-85.

This issue is identified as Nonconformance 2010-201-06

1. REASON FOR THE NONCOMPLIANCE

Our detailed review has determine that there are separate conditions that need to be addressed, as follows

A. With respect to Shaw's corrective action program lacking measures to ensure that CAQs and SCAQs identified through the internal audit process are classified, and evaluated, consistent with QS 16.5, Shaw Quality Assurance historically took a narrow view in developing its procedure to address internal audits and failed to recognize that Criterion XVIII, "Audits," of Appendix B to 10 CFR Part 50 does not stand alone; rather, it must be linked to Criterion XVI, "Corrective Action".

B. With respect to Shaw's failure to implement timely and effective corrective actions related to attention to detail as identified in two different internal audits, the two audits were Audit Nos. CT-07-02 and 2009-04. Both were audits of Domestic AP1000 Projects.

   Personnel assigned to provide responses and corrective actions for several of the findings associated with Audit No. CT-07-02 were new to the process. We believe that this was a contributing factor to the lack of timely responses and corrective actions. We also have determined that Quality Assurance Department follow-up with respect to timeliness of response submittals and implementation of corrective actions was not as rigorous as it should have been due to a less than desirable level of attention on the part of the Audit Program Manager.

   For Audit No. 2009-04 we have determined that the contributing factors to the lack of timely responses and corrective actions were a less than rigorous attention by the Director of Engineering, who was responsible for the responses and corrective actions, and by the Audit Program Manger who was responsible for timely audit follow-up regarding response submittals and corrective action implementation.

   With respect to the effectiveness of corrective actions, none of the findings associated with the two audits were significant conditions adverse to quality; collectively they demonstrated instances of lack of compliance with detailed procedure requirements, many of which were administrative in nature, as well as conditions that required strengthening of procedures. We have no indication that, at the time corrective and preventive actions were implemented, the actions were not effective. In the case of these two audits, instances of repetition of findings are symptomatic of a growth organization frequently undergoing changing requirements and not symptomatic of a lack of prior effective preventive actions. Continuing Quality Assurance audits will monitor effectiveness.

C. With respect to Shaw's failure to address and correct the identified CAQ in CAR 2009-03-19-85, as best as can be determined, this is attributable to an inadvertent oversight on the part of personnel evaluating the condition described in the CAR for all aspects of the condition.

2. CORRECTIVE STEPS THAT HAVE BEEN TAKEN AND RESULTS ACHIEVED

A. Corrective Action Report (CAR) No. 2010-03-05-467 was initiated to address the Nonconformance with respect to the corrective action program lacking measures to ensure that CAQs and SCAQs identified through the internal audit process are classified, and evaluated, consistent with QS 16.5. Evaluation of the reported condition has determined that Quality Assurance Directive (QAD) 18.1 needs to be further revised to address CAQs and SCAQs consistent with Criterion XVI, "Corrective Action," of Appendix B to 10 CFR Part 50.

B. Shaw recognized the timeliness issue in 2009. For the audits discussed above, there were instances of delinquency with respect to responses and corrective action implementation. CARs were initiated to document those conditions and QAD 18.1 was revised to require more rigorous follow-up and actions to be taken for delinquent corrective actions. Further, the Audit Program Manager established routine dialogue with the parties responsible for the responses and corrective actions, including the Director of Engineering, who assigned a staff member to expedite the responses and corrective action implementation.

   As a result of these actions, all findings associated with Audit No. CT-07-02, have been closed; we have on file acceptable responses to all findings associated with Audit No. 2009-04; and the majority of these findings have been closed. For three findings that remain open for which the scheduled corrective action dates have not yet come due, there is no negative impact due to the findings remaining open due to the relative insignificance of the findings.

C. CAR No. 2010-03-05-472 was initiated to address the NRC's concern regarding Shaw's failure to address and correct the identified CAQ in CAR 2009-03-19-85, including a reevaluation of the reported condition.

3. CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID NONCOMPLIANCE

A. QAD 18.1 has been revised to address this Nonconformance.

B. Quality Assurance has revised its Audit Program Procedures (see reply to Notice of Nonconformance 99901387/2010-201-05) to strengthen requirements for follow-up and to set forth specific requirements for actions to be taken with respect to delinquencies.

C. As part of the processing of CAR No. 2010-03-05-472 a corrective action plan will be developed to properly address the condition reported in CAR No. 2009-03-19-85.

4. DATE WHEN FULL CORRECTIVE ACTION WILL BE COMPLETED

A. QAD 18.1 was revised accordingly on 5/11/10.

B. QAD 18.1 was previously revised on 7/30/09.

C. All corrective actions for CAR No. 2010-03-05-472 was completed 5/13/10.

ENCLOSURE SIX

REPLY TO UNRESOLVED ITEM 99901387/2010-201-03

UNRESOLVED ITEM

Subcontract No. 132175-1004-1421 procures soil and concrete testing services in support of the Vogtle Units 3 and 4 project. Subcontract No. 132175-1004-1421 requires that work related to nuclear safety shall be performed in accordance with QA requirements defined in Shaw AP1000 Project Specification, SVO-000-T1-001. The NRC inspection team noted that SVO-000-T1-000 references ASME NQA-1, "Quality Assurance Requirements for Nuclear Facility Applications," 1994 Edition with 1995 Addenda, 79 ASTM standards, and 6 ACI standards related to soil and concrete testing of engineering fill material and building concrete installation over the fill material. In addition, the NRC inspection team noted that while SVO-000-T1- 001 provides a cross reference to relevant NRC RGs, the following RGs had been omitted:

- RG 1.132, Revision 2, issued October 3, 2003.

- RG 1.138, Revision 2, issued December 2003.

These RGs contain technical requirements from ASTM and ACI which SVO-000-T1- 001 does not appear to address. Therefore, during the exit meeting conducted with Shaw management, the NRC inspection team requested that Shaw determine whether or not the NRC-endorsed standards and regulatory positions in RGs 1.132 and 1.138 had been imposed in Subcontract No. 132175-1004-1421 consistent with the scope of the design specification. The NRC inspection team identified this as Unresolved Item 99901387/2010-201-03.

RESPONSE

To address this NRC Unresolved Item, it is first necessary to determine the applicability of RGs 1.132 and 1.138 to design specification SVO-000-T1-001 and whether they should be imposed in Subcontract No. 132175-1004-1421. The applicability of each is discussed below.

RG 1.132, "Site Investigations for Foundations of Nuclear Power Plants"

The scope of specification SV0-0000-T1-001 does not include investigating the planned foundations of Vogtle Units 3 & 4. The investigation phase of the two units' geologic setting and the evaluation of the type of backfill have been completed through the ESP/SSAR process. The scope of SV0-0000-T1-001 being executed under Shaw subcontract to MACTEC is construction QC testing. Investigation of alternative borrow sources has been and continues to be performed as part of the SV0-0000-T1-001 specified testing, but does not constitute "foundation investigation." Therefore, RG 1.132 is not directly applicable.

RG 1.138, Laboratory Investigations of Soils and Rocks for Engineering Analysis and Design of Nuclear Power Plants

The scope of specification SV0-0000-T1-001 does not include "determining soil and rock properties and characteristics needed for engineering and design for foundations and earthwork for nuclear power plants" as defined in the Purpose of RG 1.138. The scope of SV0-0000-T1-001/MACTEC subcontract is to verify the properties and criteria defined through the ESP/SSAR and related test fill programs whereas the scope addressed by RG 1.138 relates to testing performed within the scope of the ESP/SSAR. For example, the ESP/SSAR and related testing define soil properties and placement requirements whereas SV0-0000-T1-001 specifies testing to verify such properties and placement requirements are achieved during construction. Therefore RG 1.138 is not directly applicable.

In conclusion, as discussed above, the NRC-endorsed standards and regulatory positions in RGs 1.132 and 1.138 are not applicable to the design specification and need not be imposed in Subcontract No. 132175-1004-1421.