

Masoneilan Operations

May 22, 2013

Unites States Nuclear Regulatory Commission Attention: Document Control Desk Washington, DC 20555-0001

Subject: Reply to NRC Inspection Report No. 99901420/2013-201, Notice of Violation and Notice of Nonconformance

References: NRC Notice of Violation Docket Number 99901420/2013-201-01 NRC Notice of Nonconformance Docket Number 9901420/2013-201-02 NRC Notice of Nonconformance Docket Number 9901420/2013-201-03 NRC Notice of Nonconformance Docket Number 9901420/2013-201-04 NRC Notice of Nonconformance Docket Number 9901420/2013-201-05 NRC Notice of Nonconformance Docket Number 9901420/2013-201-06 NRC Notice of Nonconformance Docket Number 9901420/2013-201-06 NRC Notice of Nonconformance Docket Number 9901420/2013-201-07 NRC Notice of Nonconformance Docket Number 9901420/2013-201-08 NRC Notice of Nonconformance Docket Number 9901420/2013-201-08 NRC Notice of Nonconformance Docket Number 9901420/2013-201-08

Dresser Masoneilan (Dresser) hereby responds to the aforementioned Notice of Violation and Notice of Nonconformance (Reference 1 through 9), dated April 22, 2013 and received by Dresser on April 29, 2013. The Violation and Nonconformances were identified during the Nuclear Regulatory Commission's (NRC) inspection of the Dresser Masoneilan Avon, Massachusetts facility conducted March 4-8, 2013, by Inspectors Garrett Newman, Jonathan Ortega-Luciano, Aaron Armstrong, Paul Coco, Thomas Kendzia, Andrea Keim, and Tuan Le.

Attached please find Dresser's reply to References 1 through 9.

Dresser Masoneilan appreciates the opportunity that NRC Inspection provides us to continuously improve our Quality Process and Products we supply to the nuclear industry and to ensure we comply with NRC regulations.

Please contact me at 508/941-5430 if you have any questions or need to discuss this matter in greater detail.

Sincere

Nohn A. Kerr Nuclear Quality Manager Dresser Masoneilan

Attachments

Cc: Chief, Construction Mechanical Vendor Branch, Division of Construction Inspection And Operational Programs, Office of New Reactors

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Attachment 1 Reply to NRC Notice of Violation Docket Number 99901420/2013-201-01 NRC Inspection Report 2013-201

Attachment 1 sets forth the response of Dresser Masoneilan to the NRC's Notice of Violation dated April 22, 2013.

### The Notice of Violation:

The Notice of Violation provides the following description of Violation -01:

Title 10 of the Code of Federal Regulation (10 CFR) Part 21, Section 21.21(a),

"Notification of failure to comply or existence of a defect and its evaluation," states 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."

Contrary to the above, as of March 8, 2013, Dresser Masoneilan failed to adopt appropriate procedures to evaluate deviations and failures to comply associated with substantial safety hazards. Specifically:

1. Dresser Masoneilan's procedure Nuclear Quality System Procedure (NQSP) 2.1, Revision D, "Reporting Requirements Concerning Defects and Noncompliance 10 CFR Part 21," dated October 25, 2012 did not contain guidance on how to evaluate deviations in accordance with 10 CFR Part 21 requirements.

2. Dresser Masoneilan's Part 21 procedure NQSP 2.1, Revision D, "Reporting Requirements Concerning Defects and Noncompliance 10 CFR Part 21," did not contain requirements to screen and evaluate deviations reported through Quality Management Systems Work Instruction 08 (QMS-WI-08), "Customer Complaints Process," dated March 12, 2009.

Dresser Response

#### **Reason for the Violation:**

At the time of the Inspection, Dresser implemented the requirements of 10 CFR Part 21 Through implementing procedure Nuclear Quality System Procedure (NQSP) 2.1 Revision D. "Reporting Requirements Concerning Defects and Noncompliance 10 CFR Part 21" dated October 25, 2012. The Dresser procedure did not describe all of the inputs used by Dresser when reviewing process and product issues to determine 10 CFR Part 21applicability. The QMS work instruction, QMS-08, Customer Complaint Process, dated March 12, 2009 did not adequately describe the process utilized by Dresser to review all customer complaints for 10 CFR Part 21 applicability.



### **Corrective Steps Taken and Results Achieved:**

Masoneilan CAR 13-08 was opened to address this issue.

Dresser has revised both NQSP 2.1 and QMS-08 to clearly define the required inputs utilized By Dresser in conducting and processing a 10 CFR Part 21 Evaluation.

NQSP 2.1 has been revised to Revision E to clearly describe the required inputs necessary to comply with the federal regulation. The actual implementation of the 10 CFR Part 21 process was verified to be conducted in accordance with the regulation and reported that the NRC inspection team reviewed applicable nonconformance and corrective action reports to verify that Dresser Masoneilan adequately screened issues for evaluation within the 10 CFR Part 21 program. The NRC inspection team reviewed a sample of 10 CFR Part 21 evaluations and verified that Dresser Masoneilan adequately completed the evaluations within the required timeframes and that there was sufficient technical justification to support the conclusion of the evaluation. The NRC inspection team reviewed past correspondence to verify that Dresser Masoneilan made appropriate and timely notifications to inform its management, customers, and the NRC. This revision from D to E simply describes the actual practice used by Dresser in our evaluations.

QMS-08 has been revised to Revision B and amended to describe the method Customer complaints processed in accordance with this Work Instruction classified as Field Issue Reports (FIRT) are reviewed by the Quality Manager at the time of receipt. The Quality Manager attends the weekly FIRT review meeting and assesses each FIRT for potential 10 CFR Part 21 applicability. The review of all nuclear FIRT's is completed by the Nuclear Engineering and Nuclear Quality Managers (The Nuclear Safety Committee) on a monthly basis to assess the potential of a 10 CFR Part 21 issue. Results of this review are to be documented and maintained by the Quality Department.

### **Corrective Steps That Will Be Taken:**

As noted above, all outstanding actions have been completed and fully implemented.

### Date Full Compliance Achieved:



Attachment 2 Reply to NRC Notice of Nonconformance Docket Number 99901420/2013-201-02 NRC Inspection Report 2013-201

Attachment 2 sets forth the response of Dresser Masoneilan to the NRC's Notice of Nonconformance dated April 22, 2013.

#### The Notice of Nonconformance:

The Notice of Nonconformance provides the following description of Nonconformance -02

Dresser Masoneilan Quality Assurance Manual Section (QAMNUC) 4.0, "Design Control," Revision A, dated July 2010, Subsection 2.7, states, in part, that "Where changes to previously verified designs have been made, design verification shall be required for the changes, including evaluation of the effects of those changes on the overall design and on any design analyses upon which the design is based that are affected by the change to previously verified design."

Contrary to the above, as of March 8, 2013, Dresser Masoneilan failed to establish adequate design control measures for design changes commensurate with those applied to the original design and did not have approval by the organization that performed the original design. Specifically:

1. Dresser Masoneilan failed to provide objective documented evidence of design review and verification for technical changes for nuclear design revisions 0010317, 0009985, 0012208, 0013036, and 0012669, which changed machining details, lubricants, parts kits, and torque values for safety-related valves.

2. Dresser Masoneilan did not provide objective evidence of an engineering evaluation to provide justification for the change in material for lock nuts for a valve actuator housing. The original design requirements for the material specification required the part to be made of A307 carbon steel; Dresser Masoneilan fulfilled the purchase order with A194 carbon steel.

#### **Corrective Steps Taken and Results Achieved:**

Masoneilan CAR 13-17 was opened to address this finding.

1. Engineering currently performs a review of all design changes with respect to performance, function, code requirements, impact to the existing design calculations and adherence to the technical specifications. There is inconsistency in the documentation of this activity and in some cases no objective evidence has been retained of the review. The engineering changes noted in the finding were reviewed with the inspection team. Technical justifications were supplied during the inspection. Two of the noted engineering changes were in response to customer comments and had been documented through customer correspondence.



An interim corrective action memo was issued 3/13/13 to the nuclear engineering team to immediately address the noted findings. The corrective action provided guidance noting that until the Nuclear Design Revision (NDR) form was updated all engineers must add the following information to each NDR:

- Technical justification of each change on the NDR.
- Document whether the change affects existing design documents such as reports or other safety related calculations?
- Identify the existing design documents and safety related calculations.

Also, in the case of a material substitution where the existing engineering change does not contain a justification, an equivalency letter shall be generated to provide technical justification supporting the substitution.

Procedure NQSP 5.6 added instructions to document the technical justification and the effects on existing design documents. The NDR form was updated to add sections addressing these issues for each document change.

2. An equivalency evaluation was documented for the file.

Results achieved: All design changes use the revised procedure or were covered by the interim corrective action. Training was conducted

#### **Corrective Steps That Will Be Taken:**

As noted above, all outstanding actions have been completed and fully implemented.

#### **Date Full Compliance Achieved:**



Attachment 3 Reply to NRC Notice of Nonconformance Docket Number 99901420/2013-201-03 NRC Inspection Report 2013-201

Attachment 3 sets forth the response of Dresser Masoneilan to the NRC's Notice of Nonconformance dated April 22, 2013.

### The Notice of Nonconformance:

The Notice of Nonconformance provides the following description of Nonconformance -03

Nuclear Quality System Procedure (NQSP) 4.2, "Procedure for Dedication of Parts and Subassemblies," Revision A, dated May 22, 2007, Section 3.1, states, in part, that "For parts, the critical characteristics to be verified include as a minimum part number, dimensions and material." NQSP 4.2, Section 3.1, later states that, "material of construction can be verified and documented by a number of methods depending on the part. Certified Material Test Reports (CMTR), manufacturer's markings and material analysis test results are acceptable for confirming that the material of construction is as required by the part number material designation."

Contrary to the above, as of March 8, 2013, Dresser Masoneilan failed to adequately review materials and parts essential to the safety-related functions of structures, systems, and components for suitability of application and assure that purchased material conformed to the procurement documents.

Specifically:

1. Dresser Masoneilan failed to adequately verify the material of bolts, screws, washers, and nuts during critical characteristic acceptance. Dresser Masoneilan did not use a verification method allowed by NQSP-4.2, but performed a magnetism check instead.

2. Dresser Masoneilan did not evaluate the suitability and complexity of items prior to verifying physical and dimensional critical characteristics of commercial-grade items by sampling and did not evaluate the suppliers' controls over traceability of the parts to batches, lots, or heats.

### **Corrective Steps Taken and Results Achieved:**

Masoneilan CAR 13-09 was opened to address this finding.

An interim corrective action memo was issued 3/13/13 to the nuclear engineering team to immediately address the noted findings. The corrective action provided guidance to address the methods used to verify material properties. Prior to these instructions the magnet test was used in conjunction with the supplier CMTR.

Corrective action interim memo instructions:

• Ensure a safety analysis is performed addressing the failure mode and impact to safety function of the assembly.

• If "Material" has been identified as a critical characteristic, proper over checks need to be performed to verify the material properties. Most evaluations will use a PMI test to verify Chemical composition along with a surface hardness test to verify.



• The practice of using a magnet to verify material properties needs to be reviewed to ensure it adds value to the analysis. The use of a magnet test as the singular verification of material properties would be very limited. Typically a magnet test would provide a secondary means of material property validation.

• Lot and Batch control: Items such as fasteners, washers, springs, studs, etc. that are verified based on sampling plans need to be reviewed to ensure that the supplier has been audited for lot/batch control.

• When using material verification ensure the material is capable of being verified by alloy verification method and/or hardness; whichever is required to verify critical characteristics of the item.

Additionally the following changes have been permanently made to our procedures: 1. NQSP 4.2 was revised to add additional testing methods. "Additional methods of validation are allowed as a primary or secondary means of verification, the methods need to be of sound engineering practice and provide reasonable assurance of the desired material property."

Results achieved: All orders in process will be reviewed to ensure the dedication is adequate prior to release or shipment. New dedications have been created for orders that did not meet this requirement.

The implementation of Commercial Grade Dedication as instructed by NQSP 4.2 details the material requirements that must be validated. Dresser will follow the requirements of the Engineering procedures as well as the EPRI 5652 guidelines throughout the dedication process. Dresser has implemented proper supplier controls to validate supplier C of C and / or CMTR's through the evaluation of the controls employed by Dresser suppliers with respect to lot / batch control. As described in the revised dedication procedures, the suitability and complexity of parts being dedicated has been considered and implemented in the dedication process.

#### **Corrective Steps That Will Be Taken:**

As noted above, all outstanding actions have been completed and fully implemented.

#### **Date Full Compliance Achieved:**



Attachment 4 Reply to NRC Notice of Nonconformance Docket Number 99901420/2013-201-04 NRC Inspection Report 2013-201

Attachment 4 sets forth the response of Dresser Masoneilan to the NRC's Notice of Nonconformance dated April 22, 2013.

## The Notice of Nonconformance:

The Notice of Nonconformance provides the following description of Nonconformance -04

QAMNUC 2.0, "Quality System," Revision A, dated July 2010, Subsection 2.3, states, in part that "Written procedures, standards, instructions and/or drawings shall be used as required, to implement the quality assurance program."

Contrary to the above, as of March 8, 2013, Dresser Masoneilan failed to prescribe activities that affect quality in appropriate procedures and to accomplish activities that affect quality in accordance with instructions and procedures. Specifically:

1. Dresser Masoneilan failed to develop documented instructions or procedures that prescribe the process to evaluate and accept third party audits to place a supplier on its approved suppliers list.

2. Dresser Masoneilan failed to develop documented instructions or procedures that prescribe appropriate foreign material exclusion controls or inspections as required by purchase orders from customers.

3. Dresser Masoneilan failed to discuss items' safety function and failure modes in technical evaluations for the dedication of commercial-grade items as required by

NSQP 4.1, "Procedure for Preparation of Critical Component Evaluation Sheets," Revision A, dated May 22, 2007, which states, in part, "Briefly describe the function of the part. Include the overall functions of the part as well as any specific functions that are performed when the assembled equipment is performing its safety related function." and "Describe the various failure modes of the part. The failure mode should be evaluated based on the safety function of the equipment." Dresser Masoneilan also excluded material as a critical characteristic for multiple parts as required by NQSP-4.2, "Procedure for Dedication of Parts and Subassemblies," Revision A, dated May 22, 2007, Section 3.1, which states, in part, that "Critical characteristics to be reviewed for each part is part number, dimensions and material."

4. Dresser Masoneilan failed to generate corrective actions in accordance with QAMNUC 14.0, "Corrective Action," Revision A, dated July 14, 2010, Subsection 2.6, which states that "Supplier non-conformances including audit findings, and nonconformance trends shall require corrective action in accordance with the above." Dresser Masoneilan did not open corrective actions for seven open findings identified in an audit of Deloro Stellite.

5. Dresser Masoneilan did not obtain Manufacturing Engineering approval of

Material Review Board decisions for nonconformance reports (NCRs), such as

rework NCRs 7224, 7394, 7440, 7510, and 7517, as required by procedure

NQSP-13.0, "Nonconformance Identification & Disposition Procedure," Revision D, dated October 4, 2011, Section, 8.0 which states, in part, that "Permanent members of the MRB shall be representatives from Manufacturing Engineering."



### **Corrective Steps Taken and Results Achieved:**

1) Masoneilan opened CAR 13-10 to address this concern. Dresser has written and issued NQSP 6.15, "Audit / Survey Evaluation Checklist / Third Party Assessment" to validate the use of third party audits. This procedure validates the review of the audit plan, in-depth details of the audit report, verification of any audit report deficiencies, review of Corrective Actions issued, and validation of the supplier QA Manual, auditor qualifications and legibility of the audit report. This checklist is also prescriptive in follow-up requirements and method of accepting the audit report in accordance with Dresser requirements.

2) Masoneilan opened CAR 13-15 to address this concern. Dresser has written and issued Quality Management System work instruction 44, Foreign Material Exclusion, to address contract requirements invoked to preclude foreign material from Being incorporated into products furnished by Dresser. This procedure established the point in time that Dresser considers the product to be clean, as well as details the roles and responsibilities of all employees that handle / test the material once the cleanliness level has been established. Training with all appropriate personnel has been conducted to ensure understanding of this requirement.

3) Masoneilan CAR 13-09 was opened to address this finding.

Masoneilan has always evaluated the safety function and failure mode of its commercially dedicated items. There has been inconsistency in the program and in some cases the evaluations are not documented properly on the CCES sheet.

To provide consistency and ensure the evaluations were properly documented an interim corrective action memo was issued 3/13/13 to the nuclear engineering team to immediately address the noted findings. The corrective action instructed the responsible Engineer to evaluate and document the safety function and failure mode of the item being dedicated. Corrective action instruction:

• Ensure a safety analysis is performed addressing the failure mode and impact to safety function of the assembly.

Additionally an Excel version of our current CCES form was created that addresses the evaluations and provides consistent documentation of the review. The updated form has replaced the existing form as QAF 139.

The following changes have been permanently made to our procedure:

3. NQSP 4.1 Section 3 has been revised to add instructions and elaboration on the Safety Function. Failure Mode and Critical Characteristic evaluations. CCES form QAF 139 has been added to the procedure to provide consistency in the evaluation process.

Results achieved: All orders in process will be reviewed to ensure the dedication is adequate prior to release or shipment. New dedications have been created for orders that did not meet this requirement.



4) Masoneilan issued CAR 13-20 to address this concern. Dresser has revised subsection 2.6 of Nuclear QA Manual Section 14.0 "Corrective Action"

2.6 Supplier non-conformances including audit findings, and nonconforming trends shall require corrective action in accordance with the above. Failure of a supplier to respond to a request for corrective action may be cause for removal from the Approved Suppliers List. Third party audits such as NIAC that result in the issuance of a corrective action can be recorded and processed on the paperwork of the NIAC member that performed the audit and does not need to be replicated onto Dresser CAR form. All CAR's issued by Dresser or a third party must be reviewed and approved by Dresser as part of the close-out process.

Dresser has revised NQSP 13.0 "Nonconformance Identification & Disposition Procedure" to Revision E which identifies Manufacturing Engineering as a support function to the Material Review Board and not as a permanent member. This places Manufacturing Engineering's role as a support function to create manufacturing work orders, identify machines and fixtures but not as a primary dispositioning authority. The Nuclear QA Manual has also been revised to show Manufacturing Engineering as a support function only.

## **Corrective Steps That Will Be Taken:**

As noted above, all outstanding actions have been completed and fully implemented.

## **Date Full Compliance Achieved:**



Attachment 5 Reply to NRC Notice of Nonconformance Docket Number 99901420/2013-201-05 NRC Inspection Report 2013-201

Attachment 5 sets forth the response of Dresser Masoneilan to the NRC's Notice of Nonconformance dated April 22, 2013.

### The Notice of Nonconformance:

The Notice of Nonconformance provides the following description of Nonconformance -05

QAMNUC 17.0, "Quality Audits," Revision A, dated July 2010, Subsection 2.1, states in part that "Audits shall include examination of program elements and shall verify by objective evidence, compliance with the quality program."

Contrary to the above, as of March 8, 2013, Dresser Masoneilan failed to verify its suppliers' compliance with Dresser Masoneilan and the suppliers' quality programs. Specifically:

1. Dresser Masoneilan did not provide objective evidence of the evaluation of Iron Mountain quality assurance manual and implementing procedures to verify that they are in accordance with the requirements established in 10 CFR 50, Appendix B.

2. Dresser Masoneilan failed to perform an adequate assessment of a third-party audit for Deloro Stellite. The third-party audit had significant open findings and the supplier's quality assurance program was developed to comply with ISO 9001 and did not appear to meet the requirements of 10 CFR 50, Appendix B.

#### **Corrective Steps Taken and Results Achieved:**

1) Masoneilan issued CAR 13-11 to address this concern.

Masoneilan has been in contact with Iron Mountain and obtained and reviewed numerous process documents including audit of their facility by Ernst & Young. Masoneilan is reviewing these documents and will establish a 10 CFR Part 50 Appendix B audit to validate all reported controls.

2) Masoneilan issued CAR 13-10 to address this concern.

Masoneilan has reviewed the audit report of Deloro Stellite received from third party NIAC auditor to the requirements of 10 CFR Part 50 Appendix B and found that there is insufficient controls detailed in the Stellite Quality Manual to comply with the requirements of Appendix B. Deloro Stellite has been removed from the Masoneilan Approved Suppliers List as a 10 CFR Part 50 Appendix B supplier.



#### **Corrective Steps That Will Be Taken:**

As noted above, Masoneilan must conduct a 10 CFR Part 50 Appendix B audit of the Iron Mountain facility in Boston. Once this audit has been completed, CAR 13-11 can be closed with no further action required by Masoneilan.

### **Date Full Compliance Achieved:**

The completion of the facility audit and audit report of Iron Mountain should be completed by June 28, 2013.



Attachment 6 Reply to NRC Notice of Nonconformance Docket Number 99901420/2013-201-06 NRC Inspection Report 2013-201

Attachment 6 sets forth the response of Dresser Masoneilan to the NRC's Notice of Nonconformance dated April 22, 2013.

### The Notice of Nonconformance:

The Notice of Nonconformance provides the following description of Nonconformance -06

QAMNUC 10.0, "Inspection and Testing," Revision A, dated July 2010, Subsection 3.1 states, "The Quality Control Technicians examine production work within assigned areas. All pieces shall be checked with Production Work Orders and detail drawings to verify quantities, revisions, part, heat/lot numbers as well as dimensions." Dresser QMS Work Instruction 39, "Nuclear Part Order Release Process," Revision A, Section 2.1 states, "Verify critical dimensions (those that are +/- 0.005"), including verification of machining of flats, product coatings or other surface requirements using Engineering drawing."

Contrary to the above, as of March 8, 2013, Dresser Masoneilan failed to establish and execute an adequate program for inspection of activities affecting quality. Specifically, Dresser Masoneilan inspection procedures did not adequately provide guidance for which critical dimensions are to be inspected and recorded for a 6–inch Class 2 pilot operated valve pilot seat and guide intended for Susquehanna Unit 2.

### **Corrective Steps Taken and Results Achieved:**

Masoneilan issued CAR 13-14 to address this concern.

Procedure 39 Revision B was amended to clarify dimensional requirements that are to be measured when completing a part measurement to QAF 20. Inspectors completed training of the new inspection requirements. Reviewed QMS 39 Revision B to newly revised dedication process sheets and determined that these changes are sufficient to provide instruction to Quality personnel to conduct required dimensional inspections. Conducted training session 13-20 with all QC personnel to verify understanding of requirements.

### **Corrective Steps That Will Be Taken:**

As noted above, all outstanding actions have been completed and fully implemented.

### **Date Full Compliance Achieved:**



Attachment 7 Reply to NRC Notice of Nonconformance Docket Number 99901420/2013-201-07 NRC Inspection Report 2013-201

Attachment 7 sets forth the response of Dresser Masoneilan to the NRC's Notice of Nonconformance dated April 22, 2013.

#### The Notice of Nonconformance:

The Notice of Nonconformance provides the following description of Nonconformance -07

QAMNUC 11.0, "Control of Inspection, Test, and Measuring Equipment," Revision A, dated July 2010, Subsection 2.8 states, "Equipment found out of calibration or of unknown calibration status shall be identified on a Nonconformance report and removed from service."

Contrary to the above, as of March 8, 2013, Dresser Masoneilan did not adequately control measuring and test equipment found to be nonconforming. Specifically, Dresser Masoneilan did not generate NCRs for two transducers that were found out of calibration, and therefore did not document an evaluation of the validity of previous measurement, inspection, or test results and the acceptability of items previously inspected.

#### **Corrective Steps Taken and Results Achieved:**

Masoneilan issued CAR 13-16 to address this concern.

Part number *Calibration Equip* was created and entered into the Oracle system. This provides the quality technicians a standard means of entering M&TE into the NCR System. The heat number field is where the M&TE serial number is to be entered. This will require an immediate review by Quality and Engineering to assess the previous use of M&TE with respect to the 10 CFR Part 21 requirements. By standardizing on the part number, it provides an immediate audit trail so that the status of all M&TE can be reviewed at any time. Training record 13-21 was conducted with all QC personnel to ensure that all inspection personnel are aware of the requirements and clear on the expectation of the procedure.

### **Corrective Steps That Will Be Taken:**

As noted above, all outstanding actions have been completed and fully implemented.

#### **Date Full Compliance Achieved:**



Attachment 8 Reply to NRC Notice of Nonconformance Docket Number 99901420/2013-201-08 NRC Inspection Report 2013-201

Attachment 8 sets forth the response of Dresser Masoneilan to the NRC's Notice of Nonconformance dated April 22, 2013.

# The Notice of Nonconformance:

The Notice of Nonconformance provides the following description of Nonconformance -08

NQSP-13.0, "Nonconformance Identification & Disposition Procedure," Revision D, dated October 4, 2011, states, in part that, "repair' dispositions shall include technical justification from Nuclear Product Engineering or the original design organization, to ensure the design integrity of the item."

Contrary to the above, as of March 8, 2013, Dresser Masoneilan failed to review and accept NCRs 7224, 7394, 7440, 7510, and 7517, which were dispositioned as "repair" in accordance with documented procedures. Specifically, Dresser Masoneilan did not include technical justifications from Nuclear Product Engineering for the five items as required by NQSP-13.0. Dresser Masoneilan only included repair instructions on the NCRs but did not document consideration of impacts to the design that would require a design change.

# **Corrective Steps Taken and Results Achieved:**

Every non-conformance "Repair" is reviewed to ensure there is technical justification before the disposition of the non-conformance. There is inconsistency in the documentation of this activity and in some cases no objective evidence has been retained of the review.

Masoneilan CAR 13-19 was opened to address this finding.

To provide consistency and ensure technical evaluations were properly documented an interim corrective action memo was issued 3/13/13 to the nuclear engineering team to immediately address the noted findings.

Corrective action interim memo instructions:

All NCRs with a disposition for "Repair" or "Accept As Is" must document:

• Is the repair or accept as is allowable per applicable customer specification and sales order requirements?

• Is the repair or accept as is allowable per applicable codes and standards?

• If the part is safety related, does the change or repair affect the capability of the part or if applicable the higher assembly or performing its safety related function?

• Does this change affect fit form or function? If so give technical justification for acceptability of part or assembly as applicable.

• Does repair or accept as is disposition require customer notification per specification or sales order?

• Does the repair or accept as is affect the design as documented in the design report or other safety related calculations?

Also form QAF 138 was created to provide consistent review and documentation from each Engineer. This form has been incorporated into the QA manual.



Results achieved: All NCR's have this review incorporated into the disposition or through use of the new form.

#### **Corrective Steps That Will Be Taken:**

As noted above, all outstanding actions have been completed and fully implemented.

#### **Date Full Compliance Achieved:**

The steps to address the issues and improve the process have been implemented and Dresser respectfully asserts that it is in full compliance as of the date of this response.



Attachment 9 Reply to NRC Notice of Nonconformance Docket Number 99901420/2013-201-09 NRC Inspection Report 2013-201

Attachment 9 sets forth the response of Dresser Masoneilan to the NRC's Notice of Nonconformance dated April 22, 2013.

## The Notice of Nonconformance:

The Notice of Nonconformance provides the following description of Nonconformance -09

QAMNUC 14.0, "Corrective Action," Revision A, dated July 14, 2010, Subsection 2.3 states that "Corrective Action shall be taken by an individual assigned by the applicable department manager, who shall determine cause, actions needed to prevent recurrence and record on the [corrective action report] (CAR). Within 15 working days, unless extended by the Quality Manager, the CAR with schedule for completion shall be submitted to the Quality Manager." QAMNUC 14.0, Subsection 2.5, states that "The Quality Manager shall follow up to verify corrective actions within thirty days of the scheduled completion date and document this follow up on the CAR."

Contrary to the above, as of March 8, 2013, Dresser Masoneilan failed to promptly identify and correct conditions adverse to quality.

Specifically:

1. Dresser Masoneilan failed to promptly identified and correct internal audit findings documented in CAR 11-47, which identified that the QA manual was not current with the Dresser Masoneilan organization and plant practices, on September 26, 2011. Dresser Masoneilan's corrective action to review and revise the Nuclear Quality Program had not been completed as of March 8, 2013.

2. Dresser Masoneilan failed to verify corrective actions had been completed prior to closing CAR 12-07, which documented that a Dresser Masoneilan welder improperly welded an actuator steam creating a nonconforming condition. Dresser Masoneilan's corrective action required retraining of all welders on the proper set up, use of drawings, and part orientation. The CAR was closed on July 17, 2012, with no verification that the corrective actions had been accomplished within the required timeframe.

## **Corrective Steps Taken and Results Achieved:**

1) Masoneilan issued CAR 13-20 to address this concern. Masoneilan has placed much more emphasis on the root cause and closure of internal corrective actions. CAR 11-47 was issued as a place holder to ensure that all changes proposed and implemented to our nuclear quality manual would be tracked and implemented. With changes to Dresser Masoneilan's quality system over the last 18 months, the fine tuning of the quality program has been ongoing. We are preparing to submit a revised Nuclear Quality Manual to our Authorized Inspection Agency in preparation for upcoming ASME Survey. These changes will effectively close-out CAR 11-47.



2) Masoneilan CAR 12-07 was issued to document incorrect stem position by a Masoneilan Welder during the manufacturer of an actuator stem assembly. Initial disposition of the CAR and corresponding Nonconformance Report 6152 was to repair the stem by machining. Welders were to be trained in the difference of the stem needed for this part. The actual correction to this issue was to have Engineering conduct a design change (ECO-A2994) which changed the machining of the stem, resulting in identical threads on both ends. This change eliminated the possibility of the recurrence of the initial problem which was welding the stem with the longer threads reversed. The Quality Department has conducted a self-review of this CAR and agrees that the initial close-out was premature as there was lack of objective evidence to validate the change. Have verified that the design change has been incorporated. The verbal training provide to the Welders by the Manufacturing Manager is sufficient, and there is no additional action required on this issue.

#### **Corrective Steps That Will Be Taken:**

As noted above, CAR 11-47 is open and scheduled to close by June 28, 2013.

#### **Date Full Compliance Achieved:**

Completion of this Notice of Nonconformance is scheduled for June 28, 2013.