



Energy Steel & Supply Co.  
3123 John Conley Drive  
Lapeer, MI 48446  
Telephone 810 538 4965  
Facsimile 810 538 0579  
www.energysteel.com  
rpaton@energysteel.com

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

**Ref: USNRC Inspection Report 99901098/2008-201  
Reply to Notice of Violation 99901098/2008-201-01  
and  
Reply to Notices of Nonconformance;  
99901098/2008-201-02  
99901098/2008-201-03  
99901098/2008-201-04  
99901098/2008-201-05  
99901098/2008-201-06  
99901098/2008-201-07  
99901098/2008-201-08**

The Energy Steel & Supply Co. reply to the above referenced Notice of Violation and Notice of Nonconformance are enclosed in Attachment A. As discussed in the attachment, corrective actions had been taken and completed for the Notice of Violation directly upon the completion of the Inspection. Additionally corrective actions have been completed or are approaching completion for the Notices of Nonconformance. We are confident that the corrective measures taken will prevent further violations and nonconformances.

Energy Steel views these matters with the utmost seriousness and is committed to be in full conformance with the regulatory and industry requirements.

It was a pleasure to participate in the discussions with the members of the inspection team. The experience was truly enlightening and congenial. Additionally the direct interface with NRC personnel at the subsequent NRC Workshop in Maryland in December was encouraging for the future of the industry.

Thank you for providing the additional time beyond the holidays to provide this response.

Sincerely,

Robert J. Paton  
Vice President,  
Quality Assurance

Enclosure: Attachment A

CC: John A. Nakoski, Chief, Quality and Vendor Branch 2, Division of Construction  
Inspection and Operational Programs, Office of New Reactors

## Attachment A

### **Energy Steel & Supply Co. Reply to NRC Notice of Violation and Notice of Nonconformance NRC Inspection Report 99901098/2008-201**

#### **NOTICE OF VIOLATION 99901098/2008-201-01:**

Title 10, Section 21.21, "Notification of Failure to Comply or Existence of a Defect and Its Evaluation," of the Code of Federal Regulations (10 CFR 21.21), paragraph 21.21(a), requires, in part, that each individual, corporation, partnership, or other entity subject to 10 CFR Part 21, "Reporting of Defects and Noncompliance," shall adopt appropriate procedures to evaluate deviations and failures to comply associated with substantial safety hazards as soon as practicable.

Contrary to the above, as of July 25, 2008, ESSC Standard Operating Procedure (SOP) Q-15.1, "Reporting of Defects Procedure (10 CFR Part 21 Evaluation and Reporting)," Revision 3, did not provide adequate procedural guidance to meet the requirements of 10 CFR Part 21. SOP Q-15.1 did not provide guidance to determine through an evaluation that the identified deviation is a defect or failure to comply associated with a substantial safety hazard as required by the regulation.

#### **REPLY TO NOTICE OF VIOLATION 99901098/2008-201-01:**

##### **Reason For Violation**

Energy Steel had an incomplete understanding of the NRC expectations for 10CFR21 procedure verbiage specifics regarding guidance to determine through an evaluation that the identified deviation is a defect or failure to comply associated with a substantial safety hazard as required by the regulation.

##### **Corrective Steps Taken**

Corrective Action Report No. 1037 was issued and ESSC SOP Q15.1 was revised at the completion of the NRC inspection enhancing the guidance to determine through an evaluation that the identified deviation is a defect or failure to comply associated with a substantial safety hazard as required by the regulation. A copy of the procedure was provided to the NRC Inspection Team during the exit meeting; however the procedure had not yet been formally issued. The procedure was again revised to correct editorial content and include reference to the Nonconformance Report Procedure Q15.0 which was not previously referenced within Q15.1.

##### **Corrective Steps to Avoid Further Violation**

Training regarding the 10CFR21 requirements was performed on 8/20/08, 11/12/08, and 11/19/08 in conjunction with CGID Training for sales, engineering, and QA personnel. The VP, QA, QA Supervisor and Sales Manager received additional training during the NRC Workshop on 10CFR21 and CGID performed in Bethesda, MD 12/10-11/08.

##### **Date When Full Compliance will be Achieved**

Full compliance has been accomplished.

**NOTICE OF NONCONFORMANCE 99901098/2008-201-02**

- A. Nonconformance 99901098/2008-201-02 - Criterion III, "Design Control," of Appendix B to 10 CFR Part 50, states, in part, that measures shall be established to assure that applicable regulatory requirements and design basis as specified for those structures, systems, and components shall be correctly translated into specifications, drawings, procedures, and instructions. It further states that design changes, including field changes, shall be subject to design control measures commensurate with those applied to the original design and be approved by the organization that performed the original design.

Contrary to the above, as of July 25, 2008:

1. ESSC failed to document in the Contract Review Form (F-272) the review by the Contract Review Committee and the acceptance of the revisions to the PO RLLA19846 related to ESSC Job No. 34185 for an ASME safety related discharge head.
2. ESSC failed to document on the ECN (F-310, Revision 1 dated August 9, 1999) the Engineering and Quality Assurance evaluation of the effect of the ECN on existing fabrication / sub-assemblies for ECN No. 104, 105, 120, 122, 124, 156, 166, 176, and 183.

These issues have been identified as Nonconformance 99901098/2008-201-02.

**REPLY TO NOTICE OF NONCONFORMANCE 99901098/2008-201-02:****Reason For Noncompliance**

1. Although the Customer Purchase Order changes were reviewed and accepted as evidenced in the Job Travelers and final certification records, there was a failure in understanding the importance of formally documenting the review process for revisions to the Customer Purchase Order and attaching the Contract Review Form (F272) to the Customer Purchase Order for archive filing. The failure can be attributed to human error and lack of re-enforced specific direction on the method of documenting the review for Customer Purchase Order revisions on the Contract Review Form (F-272).
2. The subject ECN forms check blocks for yes/no effect were not filled in due to human error.

**Corrective Steps Taken**

1. Nonconformance Report No. 1450 was issued to document and correct the subject records. The records have been corrected and the NC closed.
2. Nonconformance Report No. 1451 was issued to document and correct the subject records. The records have been corrected and the NC closed.

**Corrective Steps to Avoid Noncompliance**

Corrective Action Report No. 1044 was issued with corrective measures via training performed for Engineering and Quality Assurance personnel. Formal training for QA and Engineering personnel regarding contract & Design Report change reviews was completed 7/22/08, 10/13/08 and 10/15/08. During the training a Design Report Review Checklist was developed and was in draft trial use on 10/15/08. The form has since been formalized into the Forms System per the new Forms Procedure ESSC SOP Q5.3 as F-361 and is being implemented. The training regarding the above is a continuous effort.

**Date When Corrective Action Will Be Completed**

- . The issue is considered Full compliance has been achieved.

**NOTICE OF NONCONFORMANCE 99901098/2008-201-03**

Nonconformance 99901098/2008-201-03 - Criterion III, "Design Control," of Appendix B to 10 CFR Part 50, states, in part, that measures shall be established for the selection and review for suitability of application of materials, parts, equipment, and processes that are essential to the safety-related functions of the structures, systems and components.

Contrary to the above, as of July 25, 2008:

1. ESSC SOP Q7.2 does not provide sufficient detail to adequately identify critical characteristics and perform commercial grade dedication activities that will meet EPRI NP-5652.
2. ESSC's commercial grade survey performed at Falk Corporation in support of replacement parts for a Falk coupling failed to verify that Falk's quality program included processes, such as material traceability and lot/batch controls, for the control of critical characteristics to support the dedication plan with sampling practice.

These issues have been identified as Nonconformance 99901098/2008-201-03.

**REPLY TO NOTICE OF NONCONFORMANCE 99901098/2008-201-03:****Reason For Noncompliance**

1. Prior to the NRC Inspection, ESSC believed that the content reference of SOP Q7.2 "Material Dedication Procedure" paragraph 2.1.2 was sufficient in providing intent that EPRI NP-5652 guidance would be utilized.

*Q7.2 – 2.1.2 "Critical Characteristics are to be identified by the end user, OEM responsible for the design and original installed equipment that the item functions as part of, or through engineering analysis performed in accordance with EPRI NP-5652 (including NRC GL-89-02)."*

2. Human error, AVL misunderstood by personnel, at root cause the personnel were found to need additional training regarding the use of NP5652 CGID Acceptance Method 2.

In review of the Q7.2 procedure it is realized that there is a lack of detail regarding the CGID process for assemblies and components. This was due historically to the focus on the majority of CGID activities at ESSC as raw materials e.g. ASTM. Due to the individuality and unique criteria of assemblies and components, Q7.2 paragraph 2.1.2 was meant to guide the user to EPRI NP-5652 for instructional guidance. For this reason when developing and further revising the procedure, there was insufficient focus on details for assemblies and components. In short ESSC misunderstood the expectations of the Regulatory Authority.

**Corrective Steps Taken**

CGID Training for QA, Sales, and Manufacturing/Engineering was performed 8/20/08, 11/12/08, 11/19/08, & 12/18/08.

ESSC has developed and is revising pertinent procedures addressing CGID

Q7.2 "Material Dedication Procedure" in revision to include specific guidance

Q3.5 "Process Controls for Legacy Manufacturer's" Rev. 0 dated 11/14/08 has been developed and implemented to provide guidance on the interaction and responsibility for design in the CGID process.

**Corrective Steps to Avoid Noncompliance**

Corrective Action Report (CPA) No.1038 was issued and completed providing corrective actions;

CGID Training for Sales, Manufacturing/Engineering, and QA personnel was performed on; August 20, 2008, November 12, 2008 November 19, 2008, December 10-11, 2008 (NRC Workshop attended by Kirt, Waters, and Paton), and December 18, 2008 (QA)

ESSC has developed and is in the process of revising pertinent procedures addressing CGID;

Q7.2 "Material Dedication Procedure" revised to include specific guidance

Q3.5 "Process Controls for Legacy Manufacturer's" has been developed and issued to provide guidance on the interaction and responsibility for OEM and engineering.

Additional CGID training was received by QA and Sales Management during the December NRC Workshop at Bethesda, MD.

**Date When Corrective Action Will Be Completed**

Follow – up for Q7.2 is scheduled for 3/1/09 final closure.

**NOTICE OF NONCONFORMANCE 99901098/2008-201-04**

- B. Nonconformance 99901098/2008-201-04 - Criterion VII, "Control of Purchased Material, Equipment and Services," of Appendix B to 10 CFR Part 50 states, in part, that measures to assure that purchased material, equipment and services conform to procurement documents include provisions for examination of products upon delivery.

Contrary to the above, as of July 25, 2008, ESSC failed to effectively implement a receipt inspection for examinations and measurements that should be used to verify an item's compliance to specified requirements. For example:

1. ESSC's failed to identify during receipt inspection that a wrong item was received and after acceptance ESSC shipped the item to its costumer.
2. ESSC failed to identify during receipt inspection that a Mitutoyo Precision Reference Specimen calibrated by an ESSC subcontractor was not properly labeled, including the sticker and dates.

These issues have been identified as Nonconformance 99901098/2008-201-04.

**REPLY TO NOTICE OF NONCONFORMANCE 99901098/2008-201-04:****Reason For Noncompliance**

The cause for both of the issues identified can be attributed to human error, lack of detailed instruction, and insufficient training.

1. The item was received from the supplier by QC based on Part No. which was incorrectly referenced on the packing slip as (Per NC 1407)
2. During the receipt of Asset PRS001, the calibration sticker indicating an incorrect due date was not detected by ESSC QC. ESSC Certificate of Calibration has been issued with the correct Calibration Due Date and re-stickered.

**Corrective Steps Taken**

1. NC#1407 was issued parts were returned and replaced on 5/7/08 to NPPD. The correct part Gear Reducer shipped to NMP on 5/7/08. The NC has been closed.
2. NC#1447 was issued on 7/23/08 disposition correcting the calibration records. The NC has been closed.

**Corrective Steps to Avoid Noncompliance**

CPA-1042 was issued providing the following corrective measures;

ESSC SOP Q7.1 is in revision to provide instruction regarding;

1. Receipt inspection of complex assemblies.
2. Receipt inspection of calibrated equipment received from calibration agencies.

**Date When Corrective Action Will Be Completed**

Follow – up for Q7.1 is scheduled for 3/1/09 final closure.

**NOTICE OF NONCONFORMANCE 99901098/2008-201-05**

- C. Nonconformance 99901098/2008-201-05 - Criterion X, "Inspection," of Appendix B to 10 CFR Part 50, states, in part, that a program for inspection of activities affecting quality shall be established to verify conformance with the documented instructions, procedures, and drawings for accomplishing that activity. Criterion X further states, in part, that examinations, measurements, or test of material or products processed shall be performed for each work operation where necessary to assure quality.

Contrary to the above, as of July 25, 2008, ESSC failed to establish procedure instructions that would include guidance for the performance of a final inspection before an item is shipped to its customer.

This issue has been identified as Nonconformance 99901098/2008-201-05.

**REPLY TO NOTICE OF NONCONFORMANCE 99901098/2008-201-05:****Reason For Noncompliance**

ESSC relied on Shop Traveler for specifics regarding final inspection requirements, however in some cases the Shop Travelers are very general in this regard, e.g. the traveler step for final inspection was found to simply state "QC Final Inspection" without any details. In these cases reliance was placed on Q13.1 paragraph 10.1 "The QC Inspector shall initial and date the work order and any additionally applicable documents as evidence of acceptance of the material, material marking, and material packaging ....". As stated it is agreed that these requirements may not provide sufficient guidance for the inspector leading to assumptions on the part of the inspector.

**Corrective Steps Taken**

Although some Job Travelers (mainly fabricated project travelers) provide details for final inspection on the Traveler or referenced document, review of the Nuclear QA Manual and SOP Procedures find that there is a need for a SOP type procedure specific to Final Inspection.

**Corrective Steps to Avoid Noncompliance**

CPA-1041 was issued providing the following corrective measures;

ESSC SOP Q10.3 Rev.0 "Final Inspection" draft has been developed.

Implementation will take place upon review and approval of the final draft.

**Date When Corrective Action Will Be Completed**

The due date for completion and final closure is 2/23/09.

**NOTICE OF NONCONFORMANCE 99901098/2008-201-06**

- D. Nonconformance 99901098/2008-201-06 - Criterion XVI, "Corrective Action," of Appendix B to 10 CFR Part 50 states, in part, 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.

Contrary to the above, as of July 25, 2008, four ESSC corrective action reports (CPAs) – CPA-1031, CPA-1028, CPA-1027, and CPA-1024 – were found to exceed the 30 business day time frame without documenting the justification of the extension of the completion dates.

This is identified as Nonconformance 99901098/2008-201-06.

**REPLY TO NOTICE OF NONCONFORMANCE 99901098/2008-201-06:****Reason For Noncompliance**

Investigation resulted in not following up as required or extending the CPA time as allowed. Periodic reviews of nonconformances and corrective status was not always performed on a weekly basis as originally planned, resulting in lack of priority to timely closures. Additionally extensions of CPA due dates were not utilized in all cases due to oversight in their usefulness in assuring tracking.

Other priorities occasionally overrode the system.

NC 1449 was issued to address the timely closures.

**Corrective Steps Taken**

NC-1449 has been completed and closed.

**Corrective Steps to Avoid Noncompliance**

CPA-1043

ESSC VP QA and ESSC QA/QC Supervisor to meet weekly to determine the NC/CPA's are being addressed in a timely manner as stated in SOP Q16.1 r.2.

Meetings are to take place on Tuesdays at 11:00AM starting 7/29/08.

Alert calendars have been set up in MS Outlook as a reminder.

Review binder set up to document weekly reviews.

Alert calendars have been set up in MS Outlook as a reminder.

Revised for implementation update; Results of completion of NC 1449 have found that additional measures are required to assure priorities are given to timely closures. Additional measures imposed to prioritize implementation progress will be for the VP,QA to compile Monthly NC/CPA Status and Trend Reports to be issued to the President for review. The initial report will be issued for the month of January 2009 to be completed and issued at the end of the first week of February 2009 and each first week of the following months.

**Date When Corrective Action Will Be Completed**

Corrective Actions completed 2/9/09.



**NOTICE OF NONCONFORMANCE 99901098/2008-201-07**

- E. Nonconformance 99901098/2008-201-07 - Criterion VI, "Document Control," of Appendix B to 10 CFR Part 50, states, in part, that measures shall be established to: 1) control the issuance of documents that prescribe activities affecting quality; 2) assure that documents, including changes, are reviewed for adequacy and approved for release by authorized personnel; and 3) assure that documents are distributed to and used at the location where the prescribed activity is performed.

Contrary to the above, as of July 25, 2008, ESSC failed to provide an adequate and consistent process for the preparation, review, approval, revision, issuance and control of documents affecting quality, including Q procedures and forms. For example:

1. ESSC failed to document the preparation, review, and approval of some Q procedures, such as SOPs Q1.0, Q3.1, and Q5.1. In addition, SOP Q6.0 does not adequately address the review, approval, distribution, revision, and control of quality forms.
2. ESSC NQAM and Q procedures failed to reference adequate quality documents and make reference to obsolete and uncontrolled documents. Specifically, SOP Q5.1 includes references to the Q-2 Nuclear QA Manual and Form F-273. Q-2 Nuclear QA Manual is an obsolete document.
3. ESSC failed to consistently control the hard copies of forms available in the Forms Book and electronic forms available on the ESSC network. In addition, the available revisions were not always consistent between the sources. Specifically, F-119A, Revision 8, was in the Forms Book, but Revision 9 was available electronically. Additionally, Revision 4 of F-193a was in the Forms Book, but Revision 5 was available electronically.

These issues have been identified as Nonconformance 99901098/2008-201-07.

**REPLY TO NOTICE OF NONCONFORMANCE 99901098/2008-201-07:****Reason For Noncompliance**

The SOP discrepancies noted in the NRC Inspection Report are the result of review of older Standard Operating Procedures (SOP) which contained cover pages that had additional or inconsistently identified review/approval sign offs. This was due to the option of the VP, QA to include various personnel in the review process that were not identified in the QA Manual, however did have a stake in the content requirements of the procedure. This inadvertently led to apparent inconsistency in the view of an objective observer. The procedures (Q1.0, Q3.1, and Q5.1) did however contain the required review and approval signatures required by the QA Manual and were in compliance with the QA Manual. At the time of the NRC inspection all ESSC SOP's were in the process of revision to at least correct the address and update approval signatures where Executive Personnel had changed. It is agreed that there is need for development of a descriptive guideline for the content and structure of procedures to maintain consistency.

The Forms discrepancies noted in the NRC Inspection Report are result of inadequate written guideline for the issuance and control of forms. This issue is recognized as an oversight in the wake of creating electronic forms.

**Corrective Steps Taken**

Create SOP "Q" procedures for;

1. Standard Operating Procedure for the Development, Content, and Review & Approval of ESSC SOP.
2. Content, Control, and Distribution of ESSC Forms.

The recently created Document Control position is to take responsibility for the control and distribution of ESSC Forms and Standard Operating Procedures. The Vice President, QA or President as applicable are to maintain responsibility for the approval prior to distribution.

**Corrective Steps to Avoid Noncompliance**

CPA-1040

ESSC Standard Operating Procedure Q5.3 Rev. 0 dated 9/10/08 "Development and Control of Energy Steel Forms" has been issued.

ESSC Standard Operating Procedure Q5.4 Rev. 0 dated 12/29/08 "Development & Control of Energy Steel Written Procedures" has been issued.

The above procedures provide for consistent content review, approval, and distribution of ESSC Forms and Standard Operating Procedures.

**Date When Corrective Action Will Be Completed**

Corrective actions are completed.

**NOTICE OF NONCONFORMANCE 99901098/2008-201-08**

F. Nonconformance 99901098/2008-201-08 - Criterion II, "Quality Assurance Program," of Appendix B to 10 CFR Part 50, states, in part, that the quality assurance program shall take into account the need for special controls, and skills to attain the required quality. In addition Criterion II states, in part, that the quality assurance program shall provide for indoctrination and training of personnel performing activities affecting quality as necessary to assure that suitable proficiency is achieved and maintained.

Contrary to the above, as of July 25, 2008, ESSC failed to qualify and document qualifications of testing personnel.

This is identified as Nonconformance 99901098/2008-201-08.

**REPLY TO NOTICE OF NONCONFORMANCE 99901098/2008-201-08:****Reason For Noncompliance**

The Test Personnel subject to this issue are the Hydrostatic Test Technicians that fixture vessels and other pressure retaining components in preparation for hydrostatic pressure tests. These personnel also may operate the pump that applies the pressure to the component.

It is customary for ESSC to have the technician co-sign the hydrostatic test record on the record line indicated for test technician signature and date.

Previous to the NRC Inspection, ESSC did not consider the Test Technician as QC Test Personnel, as the actual quality inspection is performed and documented by a qualified ESSC QC Visual Weld Inspector and in addition for ASME Code pressure tests the AI/ANI inspection is also documented on the record.

ESSC understands the NRC point in the importance of the Test Technician and agrees that the training and recorded qualification of this person should be documented.

**Corrective Steps Taken**

ESSC to document training and qualification for Hydro Test Technicians.

Only trained and documented qualified Test Technicians will be utilized for hydrostatic testing.

**Corrective Steps to Avoid Noncompliance**

CPA-1039

Training and qualification of Hydrostatic Test Technicians was accomplished on September 25, 2008.

Subject matter for the training was;

ESSC NQAM I3 R2 Section 11 "Testing".

ESSC SOP Q11.1 Rev.2 Hydrostatic Test Procedure

ESSC Form F154Hydro

ASME B&PV Code Section III Article NB/NC/ND-6000

ASME B&PV Code Section VIII Div. 1, UG-99 and UG-102

Ten QA/QC and Shop Fitter personnel received the training.

ESSC QA/QC Tech Services personnel were recorded as qualified for Hydro Testing and will act as the responsible Test Technician for Hydrostatic testing. Shop fitter personnel may perform hydro fit up activities under the supervision of the Qualified Test Technicians.

**Date When Corrective Action Will Be Completed**

Corrective action completed.