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U.S. Nuclear Regulatory Commission
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Subject: **Transmital of NEDO-33181 Revision 6, NEDO-33260 Revision 5, and NEDO-33289 Revision 2, Related to ESBWR Design Certification Application – Chapter 17**

The purpose of this letter is to formally submit the following documents referenced by ESBWR DCD Revision 6, Chapter 17, Quality Assurance (Ref. 1).

Enclosure 1 contains GE Hitachi Nuclear Energy, "NP-2010 COL Demonstration Project Quality Assurance Plan," NEDO-33181, Revision 6, August 2009.

Enclosure 2 contains GE Hitachi Nuclear Energy, "Quality Assurance Requirements for Suppliers of Equipment and Services to the GEH ESBWR Project," NEDO-33260, Revision 5, April 2008.

Enclosure 3 contains GE Energy Nuclear, "ESBWR Reliability Assurance Program," NEDO-33289, Revision 2, September 2008.

If you have any questions about the information provided, please contact me.

Sincerely,

Richard E. Kingston

Richard E. Kingston
Vice President, ESBWR Licensing

Reference:

1. MFN 09-572, ESBWR Standard Plant Design Certification Application Design Control Document, Revision 6, Tier 1 and Tier 2, dated August 31, 2009

Enclosures:

1. GE Hitachi Nuclear Energy, “NP-2010 COL Demonstration Project Quality Assurance Plan,” NEDO-33181, Revision 6, August 2009.
2. GE Hitachi Nuclear Energy, “Quality Assurance Requirements for Suppliers of Equipment and Services to the GEH ESBWR Project,” NEDO-33260, Revision 5, April 2008.
3. GE Energy Nuclear, “ESBWR Reliability Assurance Program,” NEDO-33289, Revision 2, September 2008.

cc: AE Cubbage USNRC (with enclosures)
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LF Dougherty GEH/Wilmington (with enclosures)

# Enclosure 2

# MFN 10-007

# GE Hitachi Nuclear Energy, "Quality Assurance Requirements for Suppliers of Equipment and Services to the GEH ESBWR Project," NEDO-33260, Revision 5, April 2008.

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3901 Castle Hayne Rd
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NEDO-33260
Revision 5
Class I
DRF 0000-0049-6867

APRIL 2008

# QUALITY ASSURANCE REQUIREMENTS FOR SUPPLIERS OF EQUIPMENT AND SERVICES TO THE GEH ESBWR PROJECT

Approved by:

M. Harvey
Manager, Nuclear Plant Projects Quality

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# Appendix

# Foreword

Suppliers of equipment and services to the GEH ESBWR Project shall meet the requirements of this document. This document does not supersede any requirements of the Contract/Purchase Order. If the Supplier believes that an inconsistency exists between this document and the specification(s) and referenced codes and standards in the Contract/Purchase Order, the Supplier shall immediately notify the Buyer for resolution.

# 1 Organization

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services, as defined in Section 2.1, shall each have and implement a Quality Assurance Program conforming to Basic Requirement 1 and Supplement 1S-1 of ASME NQA-1-1994.

# 2 Quality Assurance Program

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services, as defined in Section 2.1, shall each have and implement a Quality Assurance Program conforming to Basic Requirement 2 and Supplements 2S-1, 2S-2, 2S-3, and 2S-4 of ASME NQA-1-1994.

Applicable requirements of the Buyer's Contract/Purchase Order, the list of technical, quality and administrative requirements provided with the Contract/Purchase Order as Attachment T, and the requirements of this document (including changes/supplements of the Contract/Purchase Order) shall be passed on to all participating organizations within the Supplier and sub-tier suppliers. The Supplier shall assure that sub-tier suppliers comply with the Buyer's Contract/Purchase Order requirements.

Supplier shall establish, maintain and implement a documented Quality Assurance Program consistent with the quality classification of the assigned work scope, as defined below.

Supplier shall grant to Buyer, Buyer's Customer, and/or appropriate Regulatory Body representatives access to facilities for the purposes of reviewing status and completion progress of the Contract/Purchase Order work scope, manufacturing records (including Supplier's un-priced Contract/Purchase Orders), procedures, and quality records applicable to the work defined in the Contract/Purchase Order. This shall include the option to witness, check or audit all phases of Supplier's operation (including tests and inspections) as it pertains to the work on order. Manufacturing process procedures and travelers, inspection and test procedures, and other documents that control activities important to the acceptability of the work on an order shall be made available to the Buyer during surveillances and audits. A revision-controlled, English translation copy of these documents shall be made available to the Buyer during surveillances and audits. Supplier shall assure the same access to sub-tier supplier's facilities and operations.

## 2.1 Safety-Related Classification System

The ESBWR Project uses the Safety-Related classifications Q, S, and N as defined below. This is a classification system used for structures, systems, components, parts, and technical services. This document shall be applied to all classifications

including both the ASME Code and non-ASME Code items. Unless otherwise specified, the requirements specified in this document apply to all classifications.

### 2.1.1 Class Q (Safety-Related)

Safety-Related structures, systems, components, parts, and technical services are those that provide safety-related functions necessary to assure:

a. The integrity of the reactor coolant pressure boundary; or

b. The capability to shut down the reactor and maintain it in a safe shutdown condition; or

c. The capability to prevent or mitigate the consequences of accidents that could result in potential offsite exposures comparable to 10CFR50.34(a)(1) or 10CFR100.11 guideline exposures, as applicable.

Class Q structures, systems, components, parts, and technical services are items that are required to be designed and manufactured under a Quality Assurance Program complying with 10 CFR 50, Appendix B, or commercial grade items which have successfully completed the dedication process.

In all cases, Class Q includes Safety-Related design, analysis, inspection, testing, fabrication, replacement of parts, or consulting services that are associated with the Class Q structures, systems, components, parts, and technical services, whether these services are performed by the Supplier or others.

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to applicable sections and elements of ASME NQA-1-1994 Edition, Parts I and II.

### 2.1.2 Class S (Special)

Structures, systems, components, parts, and technical services that do not meet the definition of Safety-Related, but are subject to special regulatory requirements (e.g., Seismic Category I equipment or equipment with regulatory imposed Quality Assurance requirements), or Nonsafety-Related structures, systems, components, parts, and technical services, for which 10 CFR 50, Appendix B is not applicable, but are significant contributors to plant safety, are classified as Class S.

The Supplier and sub-tier suppliers of Class S structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to applicable sections and elements, as described below.

For ASME Code Section III equipment that is classified as Class S, the Supplier must meet the requirements of Section 2.1.4.

#### 2.1.2.1 Organization

The normal line organization shall verify compliance with the following criteria. A separate or dedicated QA organization is not required.

#### 2.1.2.2 QA Program

The Supplier's procedures shall describe the quality controls applied to the subject equipment. A new or separate QA program is not required.

#### 2.1.2.3 Design Control

Supplier shall establish design control measures to ensure that the contractually established design requirements are included in the design. These measures shall ensure that applicable design inputs are included or correctly translated into the design documents, and deviations from those requirements are controlled.

#### 2.1.2.4 Procurement Document Control

Procurement documents for items and services obtained by or for the Supplier shall include or reference documents describing applicable design bases, design requirements, and other requirements necessary to ensure item/service performance. The procurement documents shall be controlled to address deviations from the specified requirements.

#### 2.1.2.5 Instructions, Procedures, and Drawings

Supplier shall provide documents such as, but not limited to, written instructions, plant procedures, drawings, vendor technical manuals, and special instructions in work orders, to direct the performance of activities affecting quality. The method of instruction employed shall provide an appropriate degree of guidance to the personnel performing the activity to achieve acceptable functional performance of the structures, systems, components, parts, and technical services.

#### 2.1.2.6 Document Control

Supplier shall establish controls for the issuance and change of documents that specify quality requirements or prescribe activities affecting quality to ensure that correct documents are used. These controls shall include a review and approval of documents, identification of the appropriate revision for use, and measures to preclude the use of superseded or obsolete documents.

#### 2.1.2.7 Control of Purchased Items and Services

Supplier shall establish measures, such as inspection of items or documents upon receipt or acceptance testing, to ensure that all purchased items and services conform to appropriate procurement documents.

#### 2.1.2.8 Identification and Control of Purchased Items

Supplier shall establish measures where necessary, to uniquely identify purchased items and preserve their functional performance capability. Storage controls shall take into account appropriate environmental, maintenance, and shelf life restrictions for the items.

#### 2.1.2.9 Control of Special Processes

Supplier shall establish process and procedure controls for special processes such as welding, heat treating and nondestructive testing. These controls shall be based on applicable codes, standards, specifications, criteria, and other special requirements for the special process.

#### 2.1.2.10 Inspection

Supplier shall establish documented instructions to ensure necessary inspections are performed to verify conformance of an item or activity to specified requirements or to verify that activities are satisfactorily accomplished. Inspections need not be performed by personnel who are independent of the line organization. However, inspections shall be performed by knowledgeable personnel and shall not be performed by the individual that accomplished the activity.

#### 2.1.2.11 Test Control

Supplier shall establish measures to identify required testing that demonstrates that equipment conforms to design requirements. These tests shall be performed in accordance with test instructions or procedures. The test results shall be recorded, and authorized individuals shall evaluate the results to ensure that test requirements are met.

#### 2.1.2.12 Control of Measuring and Test Equipment (M&TE)

Supplier shall establish measures to control M&TE use, and calibration and adjustment at specific intervals or prior to use.

#### 2.1.2.13 Handling, Storage, and Shipping

Supplier shall establish measures to control the handling, storage, cleaning, packaging, shipping, and preservation of items to prevent damage or loss and to minimize deterioration. These measures include appropriate marking or labels, and identification of any special storage or handling requirements.

2.1.2.14 Inspection, Test, and Operating Status

Supplier shall establish measures to identify items that have satisfactorily passed required tests and inspections and to indicate the status of inspections, test, and operability as appropriate.

2.1.2.15 Control of Nonconforming Items

Supplier shall establish measures to identify and control items that do not conform to specified requirements to prevent their inadvertent installation or use.

2.1.2.16 Corrective Action

Supplier shall establish measures to ensure that failures, malfunctions, deficiencies, deviations, defective components, and nonconformances are properly identified, reported, and corrected.

2.1.2.17 Records

Supplier shall establish measures to ensure records are prepared and maintained to furnish evidence that the above requirements for design, procurement, document control, inspection, and test activities have been met.

2.1.2.18 Audits

Supplier shall establish measures for line management to periodically review and document the adequacy of the Supplier's processes and quality controls applied to items and services, and take any necessary corrective action. Audits independent of line management are not required. Line management is responsible for determining whether reviews conducted by line management or audits conducted by any organization independent of line management are appropriate. If performed, audits shall be conducted and documented to verify compliance with design and procurement documents, instructions, procedures, drawings, and inspection and test activities.

2.1.3 Class N (Nonsafety-Related)

Classification of structures, systems, components, parts, and technical services, which do not meet the definition of either Class Q or Class S categories.

The Supplier and sub-tier suppliers of Class N structures, systems, components, parts, and technical services shall each have and implement:

a. An ISO-9001/2000 Quality Management System with current certification, or

b. A Quality Assurance Program conforming to applicable sections and elements of ISO-9001/2000, or

c. A system of controlled and documented processes and quality requirements appropriate for the scope of work and reasonably assuring an acceptable level of quality in the delivered product or service.

For ASME Code Section III equipment that is classified as Class N, the Supplier must meet the requirements of Section 2.1.4.

### 2.1.4 ASME Code Section III

For items and materials manufactured to Section III of the ASME B&PV Code, 2001 Edition, 2003 Addenda, the ASME Code Supplier and sub-tier suppliers shall each have and implement a Quality Assurance Program in compliance with the Basic Requirements and Supplements of ASME NQA-1-1994 Edition, Quality Assurance Program Requirements for Nuclear Facilities, as modified and supplemented in NCA-4110 (b) and NCA 4134.

For metallic material manufacturers and material Suppliers, the Quality System Programs shall meet the requirements of NCA-3800. For non-metallic material manufacturers and material Suppliers, the Quality System Programs shall meet the requirements of NCA-3900.

For items that are Class Q and ASME Code, the requirements of Paragraph 2.1.1 apply. Special attention is required on Safety-Related ASME components, which contain individual parts, which by code definition are specifically exempt from code requirements. If these parts perform a Safety-Related function, they must be provided as Class Q in accordance with a QA Program accepted by the Buyer.

## 2.2 Quality Assurance Plans

Supplier shall prepare one or more Quality Assurance Plans for any equipment that is in the Supplier's scope. These Quality Assurance Plans shall be submitted and approved by the Buyer prior to start of fabrication activities and shall be revised, if necessary, to reflect Buyer's comments. Each Quality Assurance Plan shall describe how the Supplier's Quality Assurance Program will be applied to the ESBWR Project for each applicable quality classification and shall address all requirements defined by the Contract/Purchase Order.

Quality Plans shall also contain the following as a minimum:

a. Scope of work;

b. List of Procedures for special processes;

c. Schedules of key activities;

d. Inspection and Test Plans including witness and hold points specified by the Buyer in the Notification List provided with the Buyer's Contract/Purchase Order, as well as Supplier established witness and hold points;

e. Procedure for scheduling and notification of witness and hold points;

f. List of Inspection and test procedures; and

g. Specification(s) and/or drawing(s) for structures, systems, and identifying Quality Plan boundaries.

## 2.3 Personnel Training and Qualifications

In addition to the training and qualification requirements of personnel as established in the Supplier's QA Program, the following shall also be accomplished:

a. Suppliers shall assure that personnel of the Supplier and sub-tier suppliers performing work for this project are indoctrinated in the appropriate requirements of this document and other documents specified in the Buyer's Contract/Purchase Order. Records of indoctrination shall be maintained in accordance with the Supplier's QA Program.

b. For Suppliers of Class Q and ASME Code Section III items, the Supplier shall establish measures to verify that qualification and certification of Supplier and sub-tier supplier nondestructive examination personnel satisfy the requirements of the American Society for Nondestructive Testing Recommended Practice SNT-TC-1A 1992 [per ASME Section III, 2001 Edition, NX-5500]. For Class N and S items, a Buyer approved equivalent standard for qualification of nondestructive examination personnel may be used.

c. Personnel training and qualification certifications shall be subject to review, surveillance, inspection, and audit by Buyer and Buyer's Customer.

d. Lead Auditors shall be certified per ASME/NQA-1-1994, Supplement 2S-3 and Appendix 2A-3.

e. Inspection and Test personnel shall be certified per ASME/NQA-1-1994, Supplement 2S-1 and Appendix 2A-1.

# 3 Design Control

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to Basic Requirement 3, Supplement 3S-1, and Subparts 2.7 and 2.20 of ASME NQA-1-1994.

### 3.1 Buyer Supplied Software

Suppliers using Buyer supplied software shall immediately document and report to the Responsible Engineer identified on the Contract/Purchase Order, any problems, errors or discrepancies found in the software.

# 4 Procurement Document Control

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to Basic Requirement 4 and Supplement 4S-1 of ASME NQA-1-1994.

### 4.1 Control of Information Between GEH and Suppliers

The Contract/Purchase Order is the only applicable document to control the design bases and other requirements necessary to assure adequate quality, and shall be included or referenced in documents for procurement of items or services.

Task input and output documents are identified in the Contract/Purchase Order by document identity, revision and status.

Documents may be transported as hard copy or electronic files, as directed by the Contract/Purchase Order. Electronic transmittal may be in the form of CDRom/DVDRom or as a file transferred by network connection through services such as ProjectNet or other collaboration or document management tools. File identification by document identity, revision and status shall be maintained during transport.

### 4.2 Supplier Change Requests (SCR)

The Supplier shall not deviate from the technical and quality requirements without Buyer's approval. Technical and quality requirements are defined as follows:

a. The list of technical, quality and administrative requirements are shown as an Attachment T or included in the Buyer's Contract/Purchase Order.

b. Applicable codes and standards invoked by the documents specified in Attachment T or the Buyer's Contract/Purchase Order.

c. Supplier generated documents, which have been approved without comments by the Buyer.

Any exception, deviation or change to the Buyer's technical and quality assurance requirements, codes and standards specified in the Contract/Purchase Order proposed by the Supplier shall be documented on the Buyer's Supplier Change Request form (SCR) and submitted to the Buyer for review and approval prior to implementation of the change requested.

The Supplier shall use the form and instructions included in Appendix B of this document for preparing the SCR.

The Supplier shall not proceed with actions proposed in the SCR until approved by the Buyer. In the event the Supplier proceeds without Buyer's approval, all costs incurred are to the Supplier's account.

If the Buyer approves the SCR, a copy of the approved SCR will be returned to the Supplier. If the change affects Buyer's documents, the documents will be revised and incorporated by revision to the Contract/Purchase Order.

If the Change affects Supplier's documents, the Supplier upon receipt of the approved SCR shall revise such documents and submit them for Buyer's approval.

# 5 Instructions, Procedures, and Drawings

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to Basic Requirement 5 of ASME NQA-1-1994.

# 6 Document Control

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to Basic Requirement 6 and Supplement 6S-1 of ASME NQA-1-1994.

# 7 Control of Purchased Items and Services

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to Basic Requirement 7 and Supplement 7S-1 of ASME NQA-1-1994.

The Supplier shall audit sub-tier suppliers of Class Q items at least once every three years or at least once within the life of the activity.

The Supplier shall audit sub-tier suppliers of ASME Code items prior to accepting materials. ASME Code suppliers shall not be accepted based solely on their holding a Quality Systems Certificate. Periodic re-audit of ASME Code suppliers shall be performed.

## 7.1 Required Document Submittals

Document submittals, when required for approval and/or information by the Buyer, will be identified on the Contract/Purchase Order, or as a document submittal list provided with the Contract/Purchase Order as Attachment A or Table 2. Buyer and Supplier may change this list of document submittals during the

term of the Contract/Purchase Order as agreed to with such change incorporated as a revision to the Contract/Purchase Order.

Procedures and other documents specified in the list of document submittals, which will be used by the Supplier or sub-tier suppliers to accomplish the work on an order, shall be submitted to the Buyer for review and approval prior to use. Supplier shall indicate acceptance of sub-tier supplier documents prior to submittal to the Buyer for review. Sufficient time shall be allowed for the Buyer to review documents and submit comments for incorporation without impacting the Supplier's schedule. Procedure shall represent actual practice and shall be in sufficient detail to define the critical parameters for the process involved.

The Supplier shall provide the Buyer with a list of document submittals being provided to the Supplier by sub-tier suppliers that relate to Supplier's work defined on the Contract/Purchase Order. As Buyer and Supplier agree, specific documents for the Supplier's sub-tier supplier shall be included on the list of document submittals to Buyer. In the case when the fabricator is a direct subsidiary of the Supplier, then the fabricator's documents shall be submitted to satisfy the submittal requirements. In addition to the submittals required by the list of document submittals, the Supplier shall provide, to the extent possible, copies to the Buyer of such additional submittals from sub-tier suppliers as Buyer may request. These additional sub-tier supplier documents may be submitted to the Buyer in the language as received by the Supplier.

Consistent with the list of document submittals, additional detailed information such as schedule, number of copies, document numbers, and revision level shall be developed and submitted to the Buyer for information or approval. The contents of this submittal may be changed without revising the Contract/Purchase Order as long as the list of documents remains consistent with the list of document submittals.

A reusable document is a supplier document, which has been approved by the Buyer for one purchase package and, by mutual agreement, may be used to fulfill without change, a document required on another purchase package. Such reusable documents shall be identified on the list of document submittals.

Approval by the Buyer of Supplier's or sub-tier supplier's document does not relieve the Supplier of his responsibility to provide design, material, and equipment, which will fulfill the requirements of the Contract/Purchase Order.

Unless authorized by the Buyer and/or specifically controlled by Supplier's QA Program, fabrication and/or work affected by a document subject to Buyer's approval shall not be started until the applicable procedures, drawings or design data have been approved or approved with comment by Buyer. If the Supplier proceeds with work affected by a document subject to Buyer's approval prior to obtaining Buyer's approval, this work shall be at the Supplier's risk. Concurrence by Supplier with Buyer's comments is required if Supplier proceeds with the work

involving documents approved with comment. In this event, Supplier must promptly submit revised documents incorporating all comments, and the work and resulting records must reflect compliance with the comments. Revised areas should be clearly identified by a revision symbol at the change location or noted on a tabulation sheet attached to the document. In no event shall the Buyer's comments change the Contract/Purchase Order requirements, including scheduled delivery dates.

## 7.2 Commercial Grade Dedication

Dedicated commercial grade materials/parts for use as components in Class Q systems are not allowed unless the Supplier can provide sufficient evidence that the item(s) is not available from sources qualified to produce nuclear Safety-Related materials/parts, and can demonstrate the grade (i.e. quality and performance) of the item(s) to be used is equal to or higher than those produced by a qualified Safety-Related supplier. The Supplier shall also meet the following requirements:

a. The Buyer shall be notified and approval is required before the use of the component(s), which contain dedicated commercial grade materials/parts.

b. The dedication program, evaluation, and dedication plan for the item(s) shall be subject to Buyer review and concurrence prior to performing the dedication process.

c. The dedication program shall meet the requirements set forth in the United States Nuclear Regulatory Commission Generic Letters 89-02 and 91-05, and the related EPRI Report NP-5652. The process should also take into account the requirements defined in 10CFR21.

## 7.3 Certification and Release for Shipment

Prior to release for shipment, the Supplier shall perform a final inspection of the product to verify compliance with Contract/Purchase Order requirements, and also verify the adequacy of the documented evidence of this inspection.

Conditional release Purchase Orders shall not be released for shipment until Buyer clears all conditionalities.

A Product Quality Certificate (PQC) is required for Quality Class Q and S items. The Supplier shall complete and process the PQC form provided in the Contract/Purchase Order.

For source inspected items, the Buyer's PQC form (or a Buyer approved equivalent) requires the Supplier's and Buyer's Quality Representative's signatures of acceptance on the form. If the Buyer's Customer representative is present for final

release he/she will sign the PQC in the appropriate block. If the representative is not present for the final release, N/A should be included in the signature block.

For items not requiring source inspection by Buyer's Quality Representative, Supplier shall use the Buyer's PQC (or a Buyer approved equivalent), which will require the Supplier's QC signature.

If items required for Contract/Purchase Order are not included in a shipment, the Supplier shall identify on the PQC only those items included in the shipment and indicate on the PQC "Partial Shipment." On the final PQC, state: "This completes the Contract/Purchase Order."

Supplier shall review the Product Quality Certificate for accuracy of content and freedom from errors.

It is IMPORTANT that a copy of the approved PQC accompany the product to its destination. One (1) copy of each approved Deviation Disposition Request (including attachments) listed on the Product Quality Certification shall be attached to the Product Quality Certificate and accompany the product to its destination.

# 8 Identification and Control of Items

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to Basic Requirement 8 and Supplement 8S-1 of ASME NQA-1-1994.

# 9 Control of Processes

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to Basic Requirement 9 and Supplement 9S-1 of ASME NQA-1-1994.

# 10 Inspection

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to Basic Requirement 10, Supplement 10S-1, and Subparts 2.4, 2.5, and 2.8 of ASME NQA-1-1994.

## 10.1 Inspection and Test Plans

The Supplier shall submit to the Buyer for approval, Inspection and Test Plans for the components and/or systems in their work scope. The Inspection and Test Plans shall identify frequency of each inspection/test, sequences of

inspection/tests, quality characteristics to be inspected/tested/examined, procedures to be used for each inspection test or special process, methods of inspection/test/examination, and accept/reject criteria. The Supplier shall also include on the Inspection and Test Plans the Buyer requested and Supplier established witness and hold points for the Buyer. Each Witness/Hold point should have a unique identification number assigned to it.

The Buyer and Buyer's Customer will review the inspection and test plans and may designate additional witness and/or hold points on the plan. Prior to submittal of inspection and test plans for Buyer approval, the Buyer's responsible engineer and/or quality representative may participate in planning with the Supplier to establish the witness and/or hold point notifications. Witness and/or hold point notifications as agreed to by the Buyer and Supplier will be indicated on the inspection and test plans. Should any quality problems develop during fabrication, the witness and/or hold points may be revised as required to assure Supplier compliance to contractual technical and quality assurance requirements.

### 10.1.1 Hold, Witness and Surveillance Points

A hold point is a designated stopping place during or following a specific activity at which the Buyer's inspection or witness is required before further work can be performed. The Supplier shall not proceed with processing past this point without Buyer's written approval unless prior written authorization is obtained from Buyer, or it is 48 hours after the scheduled time and date of a properly scheduled and notified Hold Point and the Buyer representative is not in attendance. The Buyer may ask for a delay and reschedule with at least 24 hours notice in advance of the scheduled time and date.

A witness point is an important step in manufacturing where the Supplier is obligated to notify the Buyer in advance of the operation performed, so that it may be witnessed. If the Buyer is not present at the time and date specified by the Supplier, the Supplier may proceed. The Buyer may verbally waive the witness point.

A surveillance point is a step in manufacturing where the Buyer may monitor or observe an activity to verify whether it confirms to specified requirements.

The Buyer may waive the witness of events. Waivers for Hold Points will be in writing. Waivers in no way absolve or relieve Supplier of complying with contractual requirements. Except for final release, the Supplier is not required to delay Hold Point events should the Buyer's Quality personnel not appear within 48 hours after the notified time, unless the Buyer specifically requests a delay and reschedule at least 24 hours in advance of the scheduled event.

Should the Supplier or Supplier's sub-tier supplier fail to provide proper and timely notification, the Buyer may require the Supplier or the sub-tier supplier to redo/re-perform the event scheduled for witnessing or inspection.

### 10.1.2 Notification Requirements

Unless contractually advised otherwise, the Supplier shall meet the following notification requirements.

Hold Points – Supplier shall provide 45 days advanced planning notice, 14 days preliminary notification, and 7 days final notification confirmation of the scheduled event (excluding Saturday, Sunday and Holidays).

Witness Points – Supplier shall provide 21 days advanced planning notice, 14 days preliminary notification, and 7 days final notification confirmation of the scheduled event (excluding Saturday, Sunday and Holidays).

Surveillance Points – Supplier shall provide 21 days advanced planning notice (excluding Saturday, Sunday and Holidays).

# 11 Test Control

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to Basic Requirement 11 and Supplements 11S-1 and 11S-2 of ASME NQA-1-1994.

# 12 Control of Measuring and Test Equipment

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to Basic Requirement 12 and Supplement 12S-1 of ASME NQA-1-1994.

# 13 Handling, Storage, and Shipping

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to Basic Requirement 13, Supplement 13S-1, and Subparts 2.1, 2.2, and 2.15 of ASME NQA-1-1994.

## 13.1 Packaging, Identification and Marking

Prior to release for delivery to Buyer or Buyer's Customer, each piece part, component, or assembly shall be marked by stenciling, stamping, or marking by any suitable means not deleterious to the product. Marking or tagging of individual packages of like items at each packaging level is required. Hardware and/or software must be compatible and traceable to supporting documentation. (Certified material test reports, processing records, etc.)

Marking shall include, as a minimum, the following:

a. GEH purchase order number and revision number,

b. Purchase order item number,

c. Item nomenclature,

d. Item drawing number, part number (including revision level), and/or catalog number,

e. Material traceability data (ingot/heat number, heat treat lot number, heat code, serial number, etc.), and

f. Any other information as required by the Buyer's purchase order.

# 14 Inspection, Test, and Operating Status

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to Basic Requirement 14 of ASME NQA-1-1994.

# 15 Control of Nonconforming Items

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to Basic Requirement 15 and Supplement 15S-1 of ASME NQA-1-1994.

## 15.1 Nonconformance and Disposition of Supplier Deviations

Non-conformances to the Buyer's technical requirements with the disposition of "Repair" or "Use As Is" shall be submitted to the Buyer for review and approval. The Supplier shall be responsible for resolution of the Buyer's comments, if any, prior to implementation. The Buyer's technical requirements are those specified in the Contract/Purchase Order (including Codes and Standards) and the Supplier specifications, drawings, and documents that require Buyer's approval.

A deviation is defined as any nonconformance to Buyer's technical requirements, which will not or cannot be corrected to fully comply with specified requirements. Deviations shall be documented on the Buyer's Deviation Disposition Request (DDR) form for review and disposition.

DDRs are used to disposition a non-conformance on a one-time basis. The Supplier, using the form and following the instructions included in Appendix A of this document, shall prepare the DDR.

Buyer shall approve or disapprove Supplier's proposed disposition, or provide an alternate disposition, stating any necessary action to bring the part to an acceptable condition.

Where the DDR disposition is "disapproved," the hardware shall not be used unless it is returned to a compliant condition or to an alternate acceptable condition as defined by the disposition statement(s).

Where the DDR disposition is "other," action taken to meet an acceptable condition shall be as specified in the disposition statement(s).

Normally, the Buyer will return a copy of the DDR disposition to the Supplier. However, if verification of work on the product, caused by the disposition of the DDR is required, the original of the DDR will be returned to the Supplier for verification signatures. The verified original DDR shall be returned to the Buyer. A copy of the completed DDR will be returned to Supplier.

Buyer's response to a deviation request shall be only as authorized by the signature of the Buyer's procurement, technical and/or quality representative. Such authorization shall be to accept deviation(s) with provisions as submitted; to accept deviations subject to Buyer's authorized conditions; or to disapprove the deviation request.

Further fabrication operations, after the detection of the deviation and prior to Buyer's decision on the DDR, shall be at Supplier's risk.

Application of ASME Code Cases or Interpretations not listed in Buyer's technical specifications requires Buyer's approval by use of the DDR or Contract/Purchase Order change.

## 15.2 Reporting of Significant Defects and Failures to Comply

Suppliers and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall be responsible for the reporting of defects and failures to comply as defined in the United States Code of Federal Regulations Title 10 part 21, latest edition.

For items procured by the Buyer, the Supplier shall provide notification to the Buyer of any defect or failure to comply that is reported to the NRC. If the defect or failure to comply is discovered by the Supplier and the Supplier determines that it does not have the capability to perform the evaluation to determine if a defect exists, then the Supplier shall inform the Buyer within five (5) working days of this determination so that the Buyer may evaluate the defect or failure to comply.

The Supplier shall ensure that each procurement document issued by him or her, specifies, when applicable, that the provisions of this section apply.

Written communications and reports concerning this requirement must be addressed to the Buyer as defined in the Contract/Purchase Order. The written report required by this section shall include, but need not be limited to, the following information, to the extent known:

a. Name and address of the individual or individuals informing the Buyer.

b. Identification of the activity of the basic component supplied, which fails to comply or contains a defect.

c. Identification of the firm supplying the basic component, which fails to comply or contains a defect.

d. Nature of the defect or failure to comply and the safety hazard, which is created or could be created by such defect or failure to comply.

e. The date on which the information of such defect or failure to comply was obtained.

f. The corrective action, which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.

g. Any advice related to the defect or failure to comply about the activity or basic component that has been, is being, or will be given to purchasers or licensees.

# 16 Corrective Action

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to Basic Requirement 16 of ASME NQA-1-1994.

# 17 Quality Assurance Records

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to Basic Requirement 17 and Supplement 17S-1 of ASME NQA-1-1994.

## 17.1 Document and Record Quality Requirements

The submittal of QA records shall be of a quality suitable for reproduction and should be submitted electronically in Adobe Acrobat .PDF format or TIFF format when possible.

When non-electronic documents are permitted by the Buyer, the following are the minimum quality requirements for the Supplier's and sub-tier supplier's non-electronic documents to be submitted to the Buyer in the form of a reproducible, such as drawings, diagrams, parts lists, bill of materials, procedures, specifications, calculations, instruction manuals, performance curves, test reports etc. for Buyer's information and approval as defined in the Contract/Purchase Order or attachments thereto.

a. Documents submitted to the Buyer shall be in Standard English.

b. Documents prepared for the Buyer shall be free from defects (ink marks, copy marks, misalignment, etc.).

c. Submitted drawings or data of non-electronic type must be of sufficiently high quality as to permit scanning into ASCII files and/or microfilming and adequate reproduction of said microfilm by the Buyer. It is preferable that originals be submitted when possible. If reproductions of originals are submitted, they must be full size, black line direct-reading prints. A reproduction must be of original quality having sharp, black, clean well-defined lines with a line density equal to or better than the original. The lettering must be large and of an open style permitting reductions up to 30X and blowback at 14.5X and remain open with no plugging or loss of legibility. The reproduction must maintain an evenly high contrast between image and background over the surface of the document. Reproductions with low contrast or heavy background density with thin, weak lines and lettering are not acceptable and will be returned to the Supplier for upgrading and redrafting at the Supplier's expense.

d. 8.5"X11" documents shall be shipped flat (unfolded) with ship-board (or equivalent) protectors on top and bottom of the package as necessary.

Supplier's documents received at any time that do not meet the above quality requirements will be returned to the Supplier for correction and re-submittal to the Buyer. Documents so returned to the Buyer shall contain the appropriate approved technical content. Buyer shall not be responsible for any delays in equipment or document schedules because of the return of documents for quality corrections. The Supplier shall not be relieved of his document submittal requirements until all such requirements therein, including quality, have been satisfied.

## 17.2 Required Quality Records

Deliverable quality records, required by Buyer, are specified either in the Contract/Purchase Order, or in the Quality Records List (QRL) identified in the Contract/Purchase Order, and transmitted to Supplier as part of the Contract/Purchase Order. Quality Records shall be legible, identifiable, and readable both in printed and electronic format.

For Class Q items, the QA records, which furnish documentary evidence of the quality of items and activities, shall include at least all the applicable generic record types identified in Table 1 of the NRC Regulatory Guide 1.28, Revision 3. The QA records specified in the regulatory guide are not intended to be all inclusive, and therefore the Supplier is responsible to assure that sufficient QA records are maintained to furnish evidence of quality of items and activities within his scope of work.

The Supplier shall develop and submit a detailed list of QA records, by component/equipment bases, which correspond to the adopted regulatory guide for his scope of work to the Buyer for review and concurrence. This list shall include a retention period, as recommended in Table 1 of NRC Regulatory Guide 1.28, Revision 3. For those QA records not submitted to the Buyer, i.e. considered by the Supplier as proprietary, the Supplier shall mark as such on the list and be responsible for preservation. No such records shall be destroyed or otherwise disposed of without the Buyer's concurrence or sending a copy of such records to the Buyer. When requested by the Buyer, the Supplier shall allow access to the Supplier's proprietary QA records or send a copy of such records to the Buyer.

Quality Records shall contain, as applicable, the following types of information:

a. Buyer's Contract/Purchase Order number, item number and revision utilized.

b. Product identification (name, Buyer's drawing number, equipment package number, or catalog number).

c. Part serial number, heat number, date codes.

d. The Supplier's number of the procedure (including revision level or date of issue), which was approved for use by the Buyer.

e. Test/inspection/examination type and date of performance.

f. Inspection/test/examination results (as required in the Contract/Purchase Order).

g. Identity and certification of inspector/tester/examiner that performed the operation.

Nondestructive examination reports shall indicate the qualification level of the examiner and/or the evaluator.

Heat treatment records shall include, as a minimum, temperatures, holding times, and cooling media and other information as specified.

As records are completed during the course of work, or when required records are generated by the Supplier's sub-tier supplier, the Supplier shall review them for conformance to requirements and note approval on the face of the records prior to submitting them to the Buyer for review and acceptance.

### 17.2.1 Radiographs

Radiographs, if required, are a quality record and are subject to review by Buyer's quality representative for identification, radiographic quality, quality of the item and for actions taken as a result of radiographic interpretations. Radiographic

Reader Sheets and the Radiographic Shooting Sketch are to be included in both the Radiographs Package and the Quality Records Package.

Supplier shall interpret radiographs prior to presentation to Buyer's quality representative for evaluation. This includes radiographs made by Supplier and sub-tier suppliers.

The final set of radiographs shall be processed with archival quality, i.e. the potential for preserving the radiographic image for forty (40) years.

### 17.2.2 Material Certifications

Supplier shall obtain and keep on file certificates of chemical analysis and mechanical properties, including results of all other tests required by the applicable ASME, ASTM or Buyer specification for all materials. Each item on the certification is to be marked for identification as to component, part, and project for which the material will be used.

ASME Code welding materials shall be tested and certified in accordance with NX-2400 of ASME Code Section III. Other welding materials shall be tested and certified in accordance with AWS A5.01. Supplier shall obtain certificates of weld metal analysis for each heat of covered electrodes and bare wire.

When required, material certification shall identify the material standard(s) /specification(s) used, and identify the grade, class, heat number and heat-treat condition as applicable. For Code materials, the Certified Material Test Report (CMTR) shall be prepared in accordance with NX-2130 of ASME Code Section III. The material manufacturer or material supplier's Quality System Certificate number and expiration date shall be identified on the CMTR or Certificate of Compliance.

For Class Q items, one copy of all material certifications, including welding materials, shall be submitted to the Buyer for review as soon as Supplier accepts material, but prior to release for fabrication. Material certifications and tests, which have been reviewed and are acceptable shall be stamped or signed by Buyer's quality representative. Copies of the Buyer's accepted certifications are to be submitted as QA Records.

### 17.2.3 Binders or Packages of Deliverable Quality Records

If the Product Quality Certificate (PQC - see 7.3) is the only deliverable quality record required by the Contract/Purchase Order it need not be bound in a binder.

Quality records for a single component/part, where only a few records are required, need not be transmitted in a binder. Such records shall be compiled into a records package with an index listing all records. Each page shall be numbered sequentially.

When quality records are required for delivery for more than one component/part or for an assembly of parts, the documents shall be bound in a standard stiff pressboard binder, sized for 8-1/2" x 11" paper. Binders shall contain a table of contents listing for each component/part. A divider sheet, tabbed to identify the component/part, may separate documents for each component/part. All PQCs may be grouped under one tab. Each page shall be numbered sequentially.

### 17.2.4 Presentation and Release of Quality Records

For items source inspected, the quality records specified in the Contract/Purchase Order shall be presented to the Buyer's quality representative for review and acceptance prior to release of product for shipment. Each document and table of contents shall bear evidence of Buyer's quality representative's acceptance. If the records do not comply with contractual requirements, the product shall not be released until satisfactory records are presented.

For each shipment released to the Buyer's facilities, the Supplier shall forward one set of the quality records package(s) with the hardware, unless otherwise specified in the Contract/Purchase Order.

For each shipment, the Supplier shall forward within two weeks:

a. Two sets of Quality Records, one that includes Radiographs if applicable, to the Buyer as specified in the Contract/Purchase Order.

b. The Buyer will then, after review and acceptance, forward one copy of the records to Buyer's Customer.

## 18 Audits

The Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall each have and implement a Quality Assurance Program conforming to Basic Requirement 18 and Supplement 18S-1 of ASME NQA-1-1994.

Supplier and sub-tier suppliers of Class Q structures, systems, components, parts, and technical services shall assure that their Buyer approved Quality Assurance Program is audited annually to determine the continued acceptability of the Supplier's QA Program.

Internal and external audits shall be conducted in accordance with ASME/NQA-1-1994, Supplement 18S-1.

# Appendix A

## DDR Form and Instructions for Completion

| GE-HITACHI NUCLEAR ENERGY AMERICAS LLC<br>Sheet 1 of __ | **DEVIATION DISPOSITION REQUEST**<br>1. SUPPLIER AND LOCATION |
|---|---|

| 2. PART NAME | | 3. PART NUMBER | 4. DATE INSPECTED |
|---|---|---|---|
| 5. PRODUCT | 6. MPL NUMBER | 7. PROJECT6 | 8. SUPPLIER JOB NO. |

9. IDENTIFY DEVIATING ITEM:

10. DESCRIBE NONCONFORMANCE, PROPOSED DISPOSITION, AND ENGINEERING BASIS:

11. CAUSE OF DEVIATION, ACTION TAKEN TO PRECLUDE RECURRENCE, AND TIME AND POINT OF IMPLEMENTATION:

| 12. NO. OF SUPPLIER ATTACHMENTS: | 13. GEH QC REPRESENTATIVE (QCR) VALIDATION, OR HOW NOTIFIED: DATE | 14 SUBMITTAL APPROVAL: DATE |
|---|---|---|

15 GEH DISPOSITION AND JUSTIFICATION (Justification is required for "use as is" or "repair" dispositions):

APPROVED AS PROPOSED ☐
DISAPPROVED ☐
OTHER ☐
NO. OF GHNEA ATTACHMENTS _____

16 DESIGN VERIFICATION DRF LOCATION (Required for "use-as-is" and "repair" dispositions.):

| 17. GEH APPROVAL SIGNATURES | M/C | COMP | DATE |
|---|---|---|---|
| RESPONSIBLE ENGINEER (RE) | | | |
| RESPONSIBLE ENGINEER'S MGR | | | |
| LEAD SYSTEM ENGINEER (LSE) | | | |
| MATERIALS APPL ENGINEER (MAE) | | | |
| PROJECT MANAGER (PM) | | | |
| QC ENGINEER (QCE) | | | |
| SOURCING | | | |

18. FINAL DISTRIBUTION PQA MASTER FILE

PROCUREMENT QA ☐
SUPPLIER ☐
SOURCING ☐
RE ☐
LSE ☐
MAE ☐
PM ☐
QCE ☐
QCR ☐
OTHERS:

19. OWNER APPROVAL:

| | YES | NO |
|---|---|---|
| REQUIRED | ☐ | ☐ |
| OBTAINED | ☐ | ☐ |

20. CHANGE CONTROL DOCUMENTS

ERM/ECN or ECA NO.

FDI NO.

OTHER

21. PO NUMBER/REVISION:

22. DDR NUMBER

| 23. SUPPLIER QC DATE | GEH QC REPRESENTATIVE DATE |
|---|---|

NEO-767 (6/26/96) (See following sheet for instructions)

DDR COMPLETION INSTRUCTIONS

Submit this form only If requirements of a Purchase Order have been deviated i.e. the DDR is to be prepared after the deviating condition exists.

Use Word Processor, Typewriter or black ink ball point pen.

| ITEM NO. | INFORMATION REQUIRED |
|---|---|
| 1. | Supplier's name and address. |
| 2. and 3. | Name and identification number of detail part involved. Deviated material must be identified to the part in which it will be used |
| 4. | Date supplier first detected the nonconformance. |
| 5. | Name or description of the product being supplied, as stated on the Purchase Order (PO). |
| 6. | The GEH Master Parts List (MPL) number given on the PO. List each MPL number involved in the request. |
| 7. | Customer's project name and unit number. as assigned by GEH. |
| 8. | Supplier's shop order/job number, if assigned. Identify deviating items. |
| 9. | Identify deviating items:<br>a. Identify applicable serial or unique heat/lot number of equipment and the quantity of each.<br>b. State the document and revision that contains the requirement to be changed, and the section or paragraph number.<br>c. If item has been designated to a specific project and/or is applicable to more than one MPL number and/or part, show this relationship. |
| 10. | Describe nonconformance in "should have been" and "is" terms; propose a disposition giving specific details and engineering basis for the proposal. If of supplier's design, state the effect on reliability, inter- changeability, safety, maintainability, operability and integrity. |
| 11. | For a serious or repetitive deviation, state the probable cause, actions projected/taken to correct the under- lying cause, and when these actions will become effective. |
| 12. | Enter number of supplier attachments to this DDR. Identify each page of attachments with the DDR document number. Sequentially number each page of the attachments. |
| 13. | Signature and date of the GEH Quality Control (QC) Representative validating the accuracy of the description of the nonconformance or if GEH's QC Representative is not available, the means (telephone, TWX, etc.) and date of notification. |
| 14. | Signature, title and date of supplier's QC Manager, Project Engineer or Project Manager. |
| 15. | GE-Hitachi Nuclear Energy Americas LLC disposition will be given here. |
| 16. - 20. | These blocks are for GEH processing. |
| 21. | Enter the number and latest revision of each GEH PO (one PO per DDR) affected by the DDR. |
| 22 | Establish a DDR number using in the following format: GEH PO number-sequential number (e.g. 001). The sequence number is the number of DDRs against the GEH PO. Assign a sequential Revision number as appropriate. |
| 23. | Signatures of supplier's QC and the GEH QC Representative attesting that any and all work, on the product required of supplier by the authorized disposition, has been acceptably accomplished. |

Supplier to forward DDR to the GEH Sourcing, provide a copy to the GEH QC Representative servicing supplier’s plant.

Normally a copy will be returned to supplier with the GEH disposition. However, if affirmation by supplier QA of work on the product, caused by the disposition of the DDR is required, the original of will be returned for signatures. Signed originals must be returned to Sourcing.

The supplier shall enter the DDR number (and revision number, if any) of those dispositioned as "approved" or "other", in the non-conformance block of the Product Quality Certification (PQC). Attach a copy of the DDR to the PQC that accompanies the product to destination and place a copy in deliverable QA records. However, such reference and attachment shall not be made if subsequent changes applied by PO revision eliminate the deviation.

NOTE: If implementing the disposition of this DDR will cause a price change, the supplier shall obtain Sourcing's authorization prior to implementation.

# Appendix B

## Supplier Change Request (SCR) Form and Instructions for Completion

| *GE-Hitachi Nuclear Energy Americas LLC* | *SUPPLIER CHANGE REQUEST*<br>Sheet 1 of __ |
|---|---|

| 1. SUPPLIER AND LOCATION | | 2. SUPPLIER JOB NO. |
|---|---|---|
| 3. PRODUCT | 4. PROJECT | 5. MPL NO. |

6. IDENTIFY REQUESTED CHANGE:

7. PROVIDE BASIS FOR CHANGE REQUEST ALONG WITH BENEFITS AND/OR IMPACT TO GEH:

| 8. NO. OF SUPPLIER ATTACHMENTS | 9. GHNEA PO NUMBER/REVISION: | 10. SUPPLIER APPROVAL | DATE |
|---|---|---|---|
| | | | |

11. GEH DISPOSITION AND JUSTIFICATION:

APPROVED AS PROPOSED ☐
DISAPPROVED ☐
OTHER ☐
FDI NO. _____
NO. OF GEH ATTACHMENTS _____

NEXT PO REVISION NO

12. DESIGN VERIFICATION DRF Number (Required for dispositions of "Approved As Proposed" and "Other")

13. OWNER APPROVAL:

| | YES | NO |
|---|---|---|
| REQUIRED | ☐ | ☐ |
| OBTAINED | ☐ | ☐ |

| 14. GEH APPROVAL SIGNATURES | M/C | COMP | DATE |
|---|---|---|---|
| RESPONSIBLE ENGINEER (RE) | | | |
| PROJECT MANAGER (PM) | | | |
| PROCUREMENT (PCMT) QC | | | |
| Sourcing | | | |

15. FINAL DISTRIBUTION

PROCUREMENT QA ☐
SELLER (Thru Sourcing) ☐
SOURCING ☐
RE ☐
PM ☐
QC ENGINEER ☐
QC REPRESENTATIVE ☐
OTHERS:

16. CHANGE CONTROL DOCUMENTS

ERM/ECN NO:

VPF NO:

OTHER:

SCR NUMBER

S -

NEO-766 (6/26/96) (See following sheet for instructions)

SCR COMPLETION INSTRUCTIONS

If a change in design or QA requirements is desired, submit this form and obtain approval before proceeding or creating a deviation. Use word processor, typewriter or black ink ballpoint pen.

**ITEM NO.** **INFORMATION REQUIRED**

1. Supplier's name and address.
2. Supplier's shop order/job number, if assigned.
3. Name or description of the product being supplied, as stated on the Purchase Order (PO).
4. Customer's project name and unit number, as assigned by GEH.
5. The GEH Master Parts List (MPL) number, if given on the PO. List each MPL number involved in the request.
6. Identify the required change.
   a. Identify applicable serial or unique heat/lot number of equipment and the quantity of each. State the document and revision that contains the requirement to be changed, and the section of paragraph number.
   b. If item has been designated to a specific project and/or is applicable to more than one MPL number and/or part, show this relationship.
   c. State the proposed date or point of effectivity.
7. Provide the basis, reason, or justification for the change.
   a. If of supplier's design, state the effect on reliability, interchangeability, safety, maintainability, operability and integrity.

   IDENTIFY THE BENEFITS ACCRUING TO GEH IF THE PROPOSED CHANGE IS AUTHORIZED. SEE NOTE BELOW.
8. Enter the number of supplier attachments to this SCR. Identify each page of attachments with the SCR document number. Sequentially number each page of the attachments.
9. Enter the number and latest revision of each GEH PO affected by the SCR.
10. Signature, title, and date of supplier's authorized designee, such as QC Manager, Project Engineer, or Project Manager.
11. GEH disposition will be given here.
12. - 15. These blocks are for GEH processing.
16. Identify change control documents.
   a. Engineering Review Memorandum/Engineering Change Notices (ERM/ECNs) listed in this block are required to be placed on PO prior to release of product for shipment.
   b. Documents identified in this block by Vendor Print File (VPF) number must be revised and received/approved by GEH, as appropriate, prior to release of product for shipment.
   c. Other documents listed must be placed on PO, submitted, or issued, as appropriate to the document, prior to release of the product for shipment.

The supplier is to forward copies of the SCR sheet to the GEH Sourcing, the GEH QC Representative servicing supplier's plant, and retain a copy. Normally, a copy will be returned to the supplier with the GEH disposition.

When requested, the supplier shall demonstrate to a GEH representative that the change has been implemented at the specified point of effectivity.

Changes implemented as authorized by the SCR, must be incorporated by a PO revision issued prior to release for shipment.

NOTE: IF IMPLEMENTING THE DISPOSITION OF THIS SCR WILL CAUSE A PRICE CHANGE, THE SUPPLIER SHALL OBTAIN SOURCING'S AUTHORIZATION PRIOR TO IMPLEMENTING.