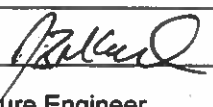
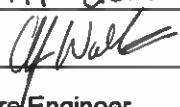
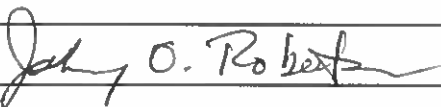
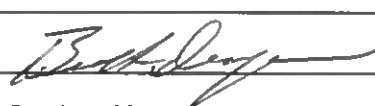
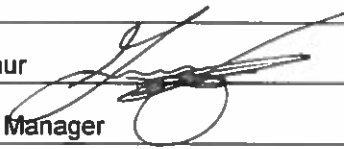
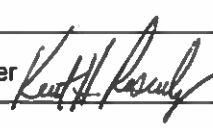
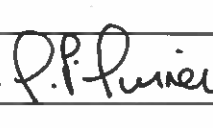


Procurement Specification Cover Sheet

1. Title Furnishing and Delivery of Cooling Coil Grout Dry Feeds			
2. Specification No. C-SPP-F-00057		3. Revision 2	
5. Functional Classification General Services (GS)		7. Requester Division SRR Engineering	
6. Requester Department Closure Engineering		4. Page 1 of 12	
8. Cognizant Technical Function		9. Verifier/ Checker USA - HTF - 2014 - 00292	
Name J. Brent McCord 		Name Clifton D. Walters 	
Date 7/14/14		Date 7/14/14	
Title Waste Tank Closure Engineer		Title Waste Tank Closure Engineer	
Department SRR Waste Tank Closure Engineering		Department SRR Waste Tank Closure Engineering	
9. Additional Reviewer			
Name Johnny O. Robertson 		Date 7/16/14	
Title Procurement Specification Authority			
Department SRR Engineering			
10. Cognizant Quality Function			
Name Bruce A. Dragon 		Date 7/17/14	
Title Construction Quality Services Manager			
Department SRR ESH & QA & CA/Quality Assurance			
11. Manager			
Name Greg C. Arthur 		Date 7/17/14	
Title Engineering Manager			
Department SRR Closure Engineering			
12. Other Approver		12. Other Approver	
Name Kent H. Rosenberger 		Name Steven P. Simner 	
Date 7/16/2014		Date 7/16/14	
Title Closure and Disposal Assessment Lead		Title SME Grout Formulation and Testing	
Department Waste Disposal Authority		Department Waste Disposal Authority	

Procurement Specification Revision History Sheet

1. Specification No C-SPP-F-00057 Furnishing and Delivery of Cooling Coil Grout Dry Feeds		2. Revision 2	3. Page 2 of 12
4. Date	5. Revision No.	6. Paragraph No.	7. Description of Changes
3/4/13	0	All	Initial Issue
5/22/13	1	2.2.2, 3.1.1, 3.2.1.1.A.1, 3.2.2.2, 4.1.1, Att. 5.1	Revised to modify material storage requirements and calibration tolerances/standards.
7/14/14	2	2.1.1, 2.2, 3.2.1.1, 3.2.2.3.D, 4.1.1.1.C, Attachment 5.1, Attachment 5.3	Revised to modify container requirements to incorporate lessons learned from previous cooling coil grouting evolutions.

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1.0 SCOPE

1.1 General Description

1.1.1 Furnishing and Delivery of Cooling Coil Grout Dry Feeds

- 1.1.1.1 Furnish and deliver dry feeds for Cooling Coil Grout in accordance with the requirements provided in this document.
- 1.1.1.2 Dry feeds components consist of Masterflow 816[®], BASF and Slag Cement provided individually or combined in a container.

1.1.2 Work Included

- 1.1.2.1 Qualification, operation and maintenance of a facility with the equipment necessary for combining (where applicable), batching and delivery of dry feeds.
- 1.1.2.2 Provide material components that conform to the requirements of this document.
- 1.1.2.3 Provide sufficient facilities and equipment to store and protect the material components per manufacturer recommendations.

1.1.3 Related Work Not Included

- 1.1.3.1 Grout dry feeds unloading and storage at point of receipt.
- 1.1.3.2 Grout mixing, forming, placing, consolidating, finishing, curing or protection at the placement site.
- 1.1.3.3 Inspection and testing of the trial batches and grout initial qualification testing.
- 1.1.3.4 Cooling Coil Grout production grout testing.
- 1.1.3.5 Testing for Cooling Coil Grout mix re-qualification if required due to changes by Savannah River Remediation (SRR).
- 1.1.3.6 Grout trial batching testing, grout mix initial qualification testing, and grout mix re-qualification testing, will be performed at the production facility. Production grout testing will be performed at the point of delivery.

2.0 REFERENCES

2.1 Definitions

2.1.1 Acronyms

CoC	Certificate of Conformance
CY	Cubic Yard
EDR	Engineering Document Requirements
M&TE	Measuring and Test Equipment
MSDS	Material Safety Data Sheet
PHSS	Packaging, Handling, Shipping, and Storage Requirements
QVDR	Quality Verification Document Requirements
SDDR	Supplier Deviation Disposition Request
SRR	Savannah River Remediation, LLC
SRS	Savannah River Site
VOC	Volatile Organic Compound

2.1.2 Terms

- 2.1.2.1 Deviation – any departure from the requirements contained in the purchase order and specification which the supplier proposes to incorporate if approved by SRR.
- 2.1.2.2 Nonconformance – a deficiency in component characteristic, as defined in SRR approved drawings and documents.
- 2.1.2.3 Point of Placement - is the end of the pump hose or tremie, i.e. the final “as-cast” grout location inside the cooling coils.
- 2.1.2.4 Point of Delivery - is the arrival and acceptance of the dry feeds material at the Savannah River Site (SRS) tank farms.
- 2.1.2.5 Repair – restoring a nonconformance characteristic to a condition such that the capability of an item to function reliably and safely is unimpaired even though that item still does not conform to the original requirement.
- 2.1.2.6 Rework – the process by which a nonconforming item is made to conform to original requirements by completion or correction.
- 2.1.2.7 Use-as-is – disposition permitted for a nonconforming item when it can be established that the item is satisfactory for its intended use.

2.2 Codes / Standards / Orders / Regulations

2.2.1 General

- 2.2.1.1 Materials and production shall be in accordance with SRR accepted national codes and standards editions as invoked and supplemented by this specification.
- 2.2.1.2 Obtain SRR acceptance via a Supplier Deviation Disposition Request (SDDR) for editions and/or addenda of Codes / Standards not specifically authorized by this specification prior to use.

2.2.2 Required Codes / Standards

2.2.2.1 American Concrete Institute (ACI)

- A. 304R-00 (2009), Guide for Measuring, Mixing, Transporting, and Placing Concrete

2.2.2.2 American Society for Testing and Materials (ASTM)

- A. C 94/C 94M-14, Standard Specification for Ready-Mixed Concrete
- B. C 939-10, Standard Test Method for Flow of Grout for Preplaced-Aggregate Concrete (Flow Cone Method)
- C. C 989/C989M-13, Standard Specification for Slag Cement for Use in Concrete and Mortars
- D. C 1107/C 1107M-13, Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink)

2.2.2.3 International Standards Organization (ISO)

- A. 9001, Quality Management Systems - Requirements

2.2.3 Orders / Regulations

2.2.3.1 Occupational Safety and Health Administration (OSHA)

- A. 29 CFR 1926, Safety and Health Regulations for Construction
- B. 29 CFR 1910.1200, Hazard Communication

2.3 Applicable Documents

- 2.3.1 Form OSR 45-4, Supplier Deviation Disposition Request (SDDR)

3.0 REQUIREMENTS

3.1 Performance Requirements

3.1.1 Production Facility

3.1.1.1 Production Facility: Conform to ASTM C 94 and ACI 304R for the applicable sections related to dry feeds storage and tolerances and methods for dry feeds weighing and blending (where applicable).

3.1.1.2 Measuring Material Components and Batching: In accordance with ACI 304R unless noted otherwise in this document.

3.1.2 Certificate of Conformance

3.1.2.1 Provide a Certificate of Conformance (CoC) stating the materials delivered meet the design requirements specified.

3.1.2.2 The CoC shall have recorded the production date, the shelf life expiration date for the dry feeds material (where applicable), the date the materials were removed from the manufacturers original packaging (where applicable), and compliance with the requirements of this specification.

3.2 Design Requirements

3.2.1 Production Mixes

3.2.1.1 General

A. Materials are to be provided as individual components or combined in a single container

1. Individual components are to be provided within +/- 2% of the specified weights:

- a. 1709.25 lbs Masterflow 816[®], BASF
- b. 190 lbs Slag Cement, ASTM C 989, Grade 100

2. These same weights are to be utilized if the materials are combined in a single container.

NOTE: Homogeneous mixing is not required as a part of this procurement. The requirement is the dry feed materials are to be provided in the designated amounts in a single container.

B. Container utilized shall be a Super Sack[®] or of comparable construction with the following features

1. Container capacity shall be greater than the volume and weight of the dry feeds materials.

2. Container shall have a 5:1 safety rating.

3. Container shall be capable of being lifted with a two pronged fork truck.

4. Container shall have a discharge spout with a length between 30 and 36 inches.

5. Container shall have a discharge spout with a design that prevents any part of the operator from being under the container once it is lifted (i.e., a side release for the bottom discharge spout).

6. Container shall be designed such that the potential for moisture intrusion is minimized.

7. Container shall be designed to minimize the potential for dust generation when the dry feeds are discharged from the spout.
- C. Do not change the material components without prior approval of SRR.
 1. Propose Material Component Changes via SDDR.
- D. Do not change the source of material components without prior approval of SRR.
 1. Propose Material Component Source Changes via SDDR.

3.2.2 Material Components

3.2.2.1 Labeling of all materials provided to SRR shall conform with 29 CFR 1910.1200, Hazard Communication and a Material Safety Data Sheet (MSDS) provided.

3.2.2.2 Masterflow 816[®], BASF

- A. Provide Masterflow 816[®], BASF grout
- B. For each shipment of grout used, obtain and retain a Manufacturer's Certification Report on chemical composition requirements and physical requirements that confirms compliance with ASTM C 1107 and ASTM C 939.
- C. Material shall be certified to contain no Volatile Organic Compounds (VOCs).
- D. Material is to be stored per manufacturer's recommendations in a clean and dry environment away from external sources of heat or sunlight.
- E. Material is to be shipped within 72 hours of production.
- F. Submit Masterflow 816[®], BASF Certification.

3.2.2.3 Slag Cement

- A. Provide a Slag Cement that meets the requirements of ASTM C 989, Grade 100.
- B. Slag Cement material shall be stored per the recommendations of ASTM C 989, Grade 100.
- C. For each shipment of Slag Cement used, obtain and retain a Manufacturer's Certification Report on chemical composition requirements and physical requirements that confirms compliance with ASTM C 989, Grade 100.
 1. Submit Slag Cement Certification.
- D. For the first shipment of Slag Cement from a manufacturer, obtain and retain documentation that verifies the reference Portland Cement used for slag activity testing complies with the requirements in ASTM C 989.
 1. Submit Slag Cement Documentation.

3.3 Service Conditions

3.3.1 See contract documents.

3.4 Quality Requirements

3.4.1 SRR Review

- 3.4.1.1 SRR reserves the right to review aspects of the production to the extent necessary to ensure compliance to this specification and code requirements.
- 3.4.1.2 Review includes the right to access the Supplier's facilities, including sub-tier subcontractors, vendors, and suppliers, for the purpose of review, audit, surveillance, and witnessing of production activities.
- 3.4.1.3 Technical and quality changes to the subcontract are only valid and executable in written form as defined in the subcontract documents, including this specification.

3.4.2 Quality Assurance Program

- 3.4.2.1 Work performed in the execution of this specification shall be in accordance with an SRR approved Supplier's Quality Assurance Program.
- 3.4.2.2 Submit the Supplier's Quality Assurance Program Manual to SRR with the proposal.
- 3.4.2.3 SRR review and acceptance of the Supplier's Quality Assurance Program Manual is required prior to award of the contract.
- 3.4.2.4 Subsequent revisions to the Supplier's Quality Assurance Program Manual shall be reviewed and accepted by SRR prior to its use in the execution of this specification.
- 3.4.2.5 When the use of sub-tier supplier(s) is deemed necessary, the Supplier is responsible to flow down those Technical and Quality requirements deemed applicable for the activities within its defined scope of work, in accordance with referenced Codes, Standards, Material Specifications, or other requirements identified in this specification and the procurement documents included with the Purchase Order/Subcontract package.
 - A. The flow down of requirements encompasses verification that the sub-tier supplier has been appropriately qualified for performance of activities complying with this procurement.
 - B. The Supplier shall maintain objective evidence of the successful flow down and provide such evidence to SRR upon request.
 - C. The Supplier is furthermore responsible to flow down all commercial Terms and Conditions, including articles incorporated by reference, to all sub-tier suppliers.
 - D. This flow down is also required at all levels if the sub-tier supplier to the prime supplier deems it necessary to further subcontract its parts of this SRR subcontract.
- 3.4.3 **Supplier Records**
 - 3.4.3.1 Retain the following documents and records generated in association with this specification.
 - A. Contract documents, including this specification and associated SDDR.
 - B. Engineering and Quality documentation submittals.
 - C. Documents identified in this specification as retained records.
 - D. Any document generated in association with this specification (e.g. procedures, reports, certifications, qualifications, letters, etc.) not required as a submittal.
 - 3.4.3.2 Provide retained records to SRR monthly during production.
 - 3.4.3.3 Retain records for a minimum of 1 year beyond the closure of the subcontract.
 - A. Dispose of retained records after the retention period.
 - B. SRR shall be notified no less than 90 days prior to the end of the retention period.
- 3.5 SRR Furnished Material, Equipment, Services**
 - 3.5.1 SRR will provide a storage location at the point of delivery that conforms with the vendor requirements for environmental concerns.
 - 3.5.2 SRR will provide labor and equipment for the receipt of materials at the point of delivery.
- 3.6 Schedule & Plant/Delivery Capacity**
 - 3.6.1 Provide Cooling Coil Grout Dry Feeds with a notice of order based on the following criteria as a guide:
 - 3.6.1.1 Minimum of thirty (30) days notification will be provided for all orders

3.6.1.2 Individual components delivered to SRR may be delivered within thirty (30) days of the SRR need date provided the remaining shelf life is at least three (3) months and the Masterflow 816[®], BASF grout remains in the manufacturers packaging.

3.6.1.3 Combined materials may be provided by meeting one of the following criteria:

- A. The materials are delivered within thirty (30) days of the SRR need date and the remaining shelf life is at least three (3) months as guaranteed by the manufacturer.
- B. The material is delivered within seven (7) days of the SRR need date and delivered within seven (7) days of opening the manufacturers packaging and the material had at least three (3) months of shelf life remaining at the time the manufacturer's packaging was opened.

3.6.2 Estimated grout production duration and estimated quantities to be delivered for this procurement shall be as specified in the purchase order.

3.7 Personnel Qualification / Certification

Not Used

3.8 Deliverables and Submittals

3.8.1 Deliverables

3.8.1.1 Deliver to SRR, at the point of delivery, Cooling Coil Grout Dry Feeds as defined in the purchase documents.

3.8.1.2 Deliver to SRR, at the point of delivery, a Certificate of Conformance with each delivery in accordance with this document.

3.8.2 Submittals

3.8.2.1 Reference the following information on transmittals, submittals and other correspondence:

SRR Purchase Order No.: _____ (Defined on Award)
SRR Project No.: _____ (Defined on Award)
SRR Project Title: _____ (Defined on Award)
Supplier's Order Number: _____

3.8.2.2 Address transmittals, Engineering Document Requirements (EDR) submittals, SDDR correspondence and one copy of each Quality Verification Document Requirements (QVDR) document to:

Savannah River Site
Document Control Center, Bldg. 704-1N
SRR Purchase Order No.: _____ (Defined on Award)
SRR Project No.: _____ (Defined on Award)
Aiken, SC 29808
Attention: _____ (Defined on Award)

3.8.2.3 Address a copy of transmittal letters and other communication to:

Savannah River Site

Building _____(Defined on Award)

SRR Purchase Order No.: _____(Defined on Award)

SRR Project No.: _____(Defined on Award)

Aiken, SC 29808

Attention:(Defined on Award) _____(Procurement Representative)

3.8.3 Documentation - General

3.8.3.1 Use black markings on white paper.

3.8.3.2 Use of recycled paper with a maximum of 25 percent recycled content is acceptable for documentation.

3.8.4 QVDR Submittal Process

3.8.4.1 Submit Quality Verification Documents listed in Attachment 5.2.

- A. Develop an itemized list according to the listing in Attachment 5.2 and include with the documentation set.
- B. Submit QVDR documentation to the SRR Cognizant Technical Function, care of the SRR Procurement Representative.
- C. **Submit an electronic file copy of all QVDR documents in "Unsecured" PDF version by e-mail to vendordocuments@srs.gov . Provide the purchase order number and the QVDR document description in the e-mail title block and in the body of the e-mail. A maximum of 30 MB per e-mail is allowed to be transmitted.**

3.8.5 EDR Submittal Process

3.8.5.1 Submit Engineering Documents. (Attachment 5.1)

- A. **Submit an electronic file copy of all EDR documents in "Unsecured" PDF version by e-mail to vendordocuments@srs.gov . Provide the purchase order number and the EDR document description in the e-mail title block and in the body of the e-mail. A maximum of 30 MB per e-mail is allowed to be transmitted.**

3.8.5.2 SRR review will result in a status as follows:

Status 1: Work may proceed.

Status 2: Submit final documentation. Work may proceed.

Status 3: Revise and resubmit. Work may proceed subject to resolution of indicated comments.

Status 4: Revise and resubmit. Work may not proceed.

Status 5: Permission to proceed not required.

3.8.5.3 Results of SRR review will be returned within 7 calendar days from the date of receipt.

3.8.5.4 Revise documents with a status of 2, 3, or 4 to incorporate SRR comments.

3.8.5.5 Submit revised documents within 10 calendar days from the date of Supplier receipt.

3.8.5.6 Notify SRR prior to changing Status 1 or Status 5 Engineering Documents.

3.8.5.7 Submit changed Engineering documents.

3.8.5.8 Assignment of Status 1 or Status 5 to the Engineering Documents by SRR does not relieve the Supplier of any part of their obligation:

- A. To satisfy the requirements defined in this specification.
- B. For the correctness of Engineering Documents.
- C. For the adequacy and suitability of material and equipment represented.

3.9 Packaging, Handling, Shipping, and Storage Requirements (PHSS)

- 3.9.1 Submit procedure as required for filling, weighing and labeling of product in accordance with Attachment 5.1.
- 3.9.2 Submit storage handling and shipping procedure of product in accordance with Attachment 5.1. The procedure should address Dry Feed components and cooling Coil Grout Mix.

3.10 Deviations

- 3.10.1 After award of the subcontract, an SDDR form shall be prepared and submitted to SRR for review and disposition for each Supplier proposed deviation from this procurement specification, including material substitution requests.

- 3.10.1.1 For each proposed deviation, the Supplier shall:

- A. Identify the specification and revision number.
- B. Identify the criteria that cannot be met by item and specification section number.
- C. Present an explanation for the deviation.
- D. Present a proposal for resolution of the deviation and technical justification for the proposed solution.
- E. Present a price and schedule adjustment for resolution of the deviation.

NOTE: Proposed deviations shall be identified promptly and transmitted to SRR to allow for adequate review and approval durations without impacting the Supplier's schedule. (If possible, a minimum of 7 calendar days should be allowed)

- 3.10.2 After award of the subcontract, an SDDR form shall be prepared and submitted to document disposition of non-conformances from the specification (including approved documents) where the Supplier wishes to request a "Use-as-is" or "Repair" disposition.

NOTE: A Nonconformance shall be identified on an SDDR and SRR notified within 5 working days of discovery.

- 3.10.2.1 For each nonconformance where a "Use-as-is" or "Repair" disposition is being requested, the Supplier shall provide the following information on the associated SDDR for SRR for review and disposition:

- A. Identify the specification and/or document number and revision number.
- B. Identify the criteria that cannot be met.
- C. Present an explanation for the nonconformance.
- D. Present a proposal for resolution of the nonconformance and provide a sound justification for the technical adequacy of the proposed solution.
- E. Present a price and schedule adjustment for resolution of the nonconformance.

- 3.10.2.2 Replacement of rejected materials or other rework of an item such that it is restored to a configuration that meets the specification/approved design does not require an SDDR.

- 3.10.3 Do not perform any work or make delivery of any item for which an SDDR is submitted until a written disposition of the SDDR is received from SRR.

4.0 ACCEPTANCE OF ITEMS

4.1 Inspection/Testing Requirements

4.1.1 General Requirements

4.1.1.1 Measuring and Test Equipment (M&TE)

- A. Calibrate all M&TE instruments in accordance with the vendor established ISO 9001 Calibration Program.
- B. Retain M&TE Calibration Records and make available to SRR upon request per EDR.
- C. Submit vendor established calibration procedure in accordance with Attachment 5.1.

4.1.1.2 Rejected / Excess Grout Dry Feeds

- A. Grout Dry Feeds rejected due to the Supplier's error shall be returned to the Supplier's facility for disposal.
- B. Grout Dry Feeds rejected due to an error by SRR will be disposed of by SRR.
- C. Excess Grout Dry Feeds shall be disposed of by SRR.

4.2 SRR Surveillance and Audits

4.2.1 All materials and production facilities shall be subject to inspection by SRR.

4.2.1.1 Cooperate with SRR or its representative by providing reasonable access for making necessary checks of the production facilities and for obtaining samples.

4.3 Final Acceptance Method

4.3.1 Supplier shall provide a Certificate of Compliance outlined in this document for acceptance by SRR.

4.3.2 Final acceptance of Cooling Coil Grout Dry Feeds is by SRR at point of delivery based on the Supplier provided Certificate(s) of Compliance outlined in this document.

4.3.3 SRR will verify assignment of Status 1 or 5 (in accordance with the "Deliverables" section of this specification) for all documents listed on the EDR, Attachment 5.1.

4.3.4 SRR will verify receipt and acceptability of all documents listed on the QVDR, Attachment 5.2.

5.0 ATTACHMENTS

5.1 Engineering Document Requirements (2 Pages)

5.2 Quality Verification Document Requirements (3 Pages)

5.3 Supplier Quality Assurance Program Requirements (1 Page)

Engineering Document Requirements Form Instructions

Attachment No. 5.1
Revision No. 2
Spec/Req'n No. C-SPP-F-00057
Page 2 of 2

Purpose The Engineering Document Requirements (EDR) form is prepared by the originator, establishes a basis for actions required of a Supplier and provides the schedule for the submittal of engineering documents by the Supplier.

Legend Entry

No.	Information Required
1	Document category number – see below.
2	Applicable specification number and appropriate paragraph.
3	Description corresponding to document category number.
4	Permission to proceed with fabrication or other specific processes is marked yes, if required.
5	List a milestone after award i.e., prior to fabrication, prior to test, prior to shipment, or with shipment that the listed document is to be submitted by Supplier.
6	Number of copies required for submittal.
7	Reproducible, Mylar, Vellum, etc.
8	Enter remarks when appropriate.

Document Category Number and Descriptions

- 1.0 Drawings
 - 1.1 Outline Dimensions, Services, Foundations and Mounting Details – Drawings providing external envelope, including lugs, centerline(s), location and size for electrical cable, conduit, fluid, and other service connections, isometrics and details related to foundations and mountings.
 - 1.2 Assembly Drawings – Detailed drawings indicating sufficient information to facilitate assembly of the component parts of an equipment item.
 - 1.3 Shop Detail Drawings – Drawings which provide sufficient detail to facilitate fabrication, manufacture, or installation. This includes pipe spool drawings, internal piping and wiring details, cross-section details and structural and architectural details.
 - 1.4 Wiring Diagrams – Drawings which show schematic diagram equipment, internal wiring diagrams, and interconnection wiring diagram for electrical items.
 - 1.5 Control Logic Diagrams – Drawings which show paths which input signals must follow to accomplish the required responses.
 - 1.6 Piping and Instrumentation Diagrams – Drawings which show piping system scheme and control elements.
- 2.0 Parts Lists and Costs – Sectional view with identified parts and recommended spare parts for one year's operation and specified with unit cost.
- 3.0 Complete SRS Data Sheets – Information provided by Supplier on data sheets furnished by SRS.
- 4.0 Instructions
 - 4.1 Erection/Installation – Detailed written procedures, instructions, and drawings required to erect or install material or equipment.
 - 4.2 Operations – Detailed written instructions describing how an item or system should be operated.
 - 4.3 Maintenance – Detailed written instructions required to disassemble, reassemble and maintain items or systems in an operating condition.
 - 4.4 Site Storage and Handling – Detailed written instructions, requirements and time period for lubrication, rotation, heating, lifting or other handling requirements to prevent damage or deterioration during storage and handling at jobsite. This includes shipping instruction for return.
- 5.0 Schedules: Engineering and Fabrication/Erection – Bar charts or critical path method diagram which detail the chronological sequence of activities, i.e., Engineering submittals, fabrication and shipment.
- 6.0 Quality Assurance Manual/Procedures – The document(s) which describe(s) the planned and systematic measures that are used to assure that structures, systems, and components will meet the requirements of the procurement documents.
- 7.0 Seismic Data Reports – The analytical or test report which provides information and demonstrates suitability of material, component or system in relation to the conditions imposed by the stated seismic criteria.
- 8.0 Analysis and Design Reports – The analytical data (stress, electrical loading, fluid dynamics, design verification reports, etc.) which demonstrate that an item satisfies specified requirements.
- 9.0 Acoustic Data Reports – The noise, sound and other acoustic vibration data required by the procurement documents.
- 10.0 Samples
 - 10.1 Typical Quality Verification Documents – A representative data package which will be submitted for the items furnished as required in the procurement documents.
 - 10.2 Typical Material Used – a representative example of the material to be used.
- 11.0 Material Descriptions – The technical data describing a material which a Supplier proposes to use. This usually applies to architectural items, e.g., metal siding, decking, doors, paints, coatings.
- 12.0 Welding Procedures and Qualifications – The welding procedure, specification and supporting qualification records required for welding, hard facing, overlaying, brazing and soldering.
- 13.0 Material Control Procedures – The procedures for controlling issuance, handling, storage and traceability of materials such as weld rod.
- 14.0 Repair Procedures – The procedures for controlling materials removal and replacement by welding, brazing, etc., subsequent thermal treatments, and final acceptance inspection.
- 15.0 Cleaning and Coating Procedures – The procedures for removal of dirt, grease or other surface contamination, and preparation and application of protective coatings.
- 16.0 Heat Treatment Procedures – The procedures for controlling temperatures and time at temperature as a function of thickness, furnace atmosphere, cooling rate and methods, etc.
- 19.0 UT – Ultrasonic Examination Procedures – Procedures for detecting discontinuities and inclusions in materials by the use of high frequency acoustic energy.
- 20.0 RT – Radiographic Examination Procedures – Procedures for detecting discontinuities and inclusions in materials by x-ray or gamma ray expose of photographic film.
- 21.0 MT – Magnetic Particle Examination Procedures – Procedures for detecting surface or near surface discontinuities in magnetic materials by the distortion of an applied magnetic field.
- 22.0 PT – Liquid Penetrant Examination Procedures – Procedures for detecting discontinuities in materials by the application of a penetrating liquid in conjunction with suitable developing materials.
- 23.0 Eddy Current Examination Procedures – Procedures for detecting discontinuities in materials by distortion of an applied electromagnetic field.
- 24.0 Pressure Test – Hydro, Air, Leak, Bubble or Vacuum Test Procedures – Procedures for performing hydrostatic or pneumatic structural integrity and leakage tests.
- 25.0 Inspection Procedures – Organized process followed for the purpose of determining that specified requirements (dimensions, properties, performance results, etc.) are met.
- 26.0 Performance Test Procedures – Test performed to demonstrate that functional design and operational parameters are met.
 - 26.1 Mechanical Tests – e.g., pump performance, data, valve stroking, load, temperature rise, calibration, environmental, etc.
 - 26.2 Electrical Test – e.g., impulse, overload, continuity, voltage, temperature rise, calibration, saturation, loss, etc.
- 27.0 Prototype Test Reports – Reports of a test which is performed on a standard or typical examination of equipment or item, and which is not required for each item produced in order to substantiate the acceptability of equal items. This may include tests which result in damage to the item(s) tested.
- 28.0 Personnel Qualification Procedures – Procedures for qualifying welders, inspectors and other special process personnel.
- 29.0 Supplier Shipping Preparation Procedures – Procedures used by a Supplier to prepare finished materials or equipment for shipment from its facility to the jobsite.

Quality Verification Document Requirements

Attachment No. 5.2
Revision No. 2
Spec/Req'n No. C-SPP-F-00057
Page 2 of 3

8. Supplier's Order No.	9. Supplier's Part	10. Supplier's Part Name	11. Quantity
12. PO No.	13. SRS Line/Equip Tag or Code No.	14. SRS Part Name	
<p>15. Supplier's Conformance Statement</p> <p style="margin-left: 40px;">We certify that the work and required documents meet the requirements of the procuring documents.</p> <p style="margin-left: 40px;"> </p> <p style="margin-left: 40px;"> Authorized Supplier Signature Title Date </p>			
<p>16. Source Surveillance Representative at Supplier's Facility</p> <p style="margin-left: 40px;">Work was released based on satisfactory completion of quality surveillance and review of documentation.</p> <p style="margin-left: 40px;"> <input type="checkbox"/> With Authorized Deviations Noted in Column 6 <input type="checkbox"/> No Deviations </p> <p style="margin-left: 80px;"><i>N/A – Source Surveillance Not Required</i></p> <p style="margin-left: 40px;"> </p> <p style="margin-left: 40px;"> Signature of SSR Date </p>			
<p>17. Receiving Inspection at SRS</p> <p style="margin-left: 40px;">This form and the quality verification documents referenced hereon have been received and their relationship to the hardware items verified.</p> <p style="margin-left: 40px;"> </p> <p style="margin-left: 40px;"> Signature of SRS Inspector Date </p>			

Quality Verification Document Requirements

FORM INSTRUCTIONS

Purpose The Quality Verification document Requirements (QVDR) is initiated by SRS and completed by the Supplier when providing quality verification documents. The QVDR is a multipurpose form to

Transmit quality verification documents from the Supplier,
Provide evidence of SSR release of documentation and /or work, and
Provide evidence of an SRS inspection check of documentation received at SRS.

SRS Entries

Entry No.	Information Required
1	Enter Document Category Number – see below.
2	Enter Specification Number and Paragraph Reference.
3	Enter Description corresponding to the Document Category Number.
4	SSR to initial upon item release.
6	Enter "Remarks: as appropriate.
16	SSR and dates release.

Supplier Entries

Entry No.	Information Required
7	Enter number of pages of quality verification document being submitted.
8	Enter information required.
9	Enter information required.
10	Enter information required.
11	Enter the quantity of units covered by the documents submitted. For each item on Entry No. 12 being released, provide a separate copy of this completed form and the supporting quality verification documents.
12	Enter information required.
13	Enter information required.
14	Enter information required.
15	Supplier – Signature of an employee authorized to sign such documents.

Field Entries

Entry No.	Information Required
5	SRS inspector at the jobsite to complete check-in.
17	The SRS inspector will review the quality verification documentation package. If found satisfactory, he signs and dates the check-in statement.

Document Category Numbers and Descriptions

- 12.0 Welding Verification Reports – Reports of welding performed to include weld identification, and certification that qualified welding procedures and welders were used.
- 13.0 Material Verification Reports – Reports relative to material which confirm, substantiate or assure that an activity or condition has been implemented in conformance with code and material specifications imposed by the procurement documents.
- 14.0 Major Repair Verification Reports – Reports may include weld repair locations (maps), material test reports for filler metal, pre- and post-weld heat treatment records, NDE records, etc. The resolution of whether a repair is major or not is an SRS responsibility.
- 15.0 Cleaning and Coating Verification Reports – Reports include a certification of visual examination for surface preparation, surface profile, materials, etc.; and also humidity data, temperature data and coating thickness data as required by the procurement documents.
- 16.0 Heat Treat Reports – Reports normally include furnace charts and similar records which identify and certify the item(s) treated, the procedure used, furnace atmosphere, time at temperature, cooling rate, etc.
- 17.0 Material Property Reports
 - 17.1 MTR (Material Test Reports) – These reports include all chemical, physical, mechanical, and electrical property test data required by the material specification and applicable codes. These are applicable to cement, concrete, metals, cable jacket materials, rebar, rebar splices, etc.
 - 17.2 Impact Test Data – Reports of Charpy or drop weight tests including specimen configuration, test temperature and fracture data.
 - 17.3 Ferrite Data – Reports of the ferrite percentage for stainless steel materials used, including castings and welding filler metals as deposited.
 - 17.4 Materials Certificate of Conformance – Documents which certify conformance to the requirements of the applicable material specification.
 - 17.5 Electrical Property Reports – Reports of electrical characteristics, e.g., dielectric, impedance, resistance, flame tests, corona, etc.
- 18.0 Code Compliance – Verifying documents (such as data Forms U-1, M-2, State, etc.), which are prepared by the manufacturer or installer and certified by the Authorized Code Inspector.
- 19.0 UT – Ultrasonic Examination and Verification Reports – Examination results of certain characteristics of discontinuities and inclusions in material by the use of high frequency acoustic energy.
- 20.0 RT – Radiographic Examination and Verification Reports – Examination results of certain characteristics of discontinuities and inclusions in materials by x-ray or gamma ray exposure of photographic film, including film itself.
- 21.0 MT – Magnetic Particle Examination and Verification Reports – Examination results of surface (or near surface) discontinuities in magnetic materials by distortion of an applied magnetic field.
- 22.0 PT – Liquid Penetrant Examination and Verification Reports – Examination results of surface discontinuities in materials by application of a penetrating liquid in conjunction with suitable developing techniques.
- 23.0 Eddy Current Examination and Verification Reports – Examination results of discontinuities in material by distortion of an applied electromagnetic field.
- 24.0 Pressure Test – Hydro, Air, Leak, Bubble or Vacuum Test and Verification Reports – Results of hydrostatic or pneumatic structural integrity and leakage tests.
- 25.0 Inspection and Verification Reports – Documented findings resulting from an inspection.
- 26.0 Performance Test and Verification Reports – Reports of Test Results
 - 26.1 Mechanical Test, e.g., pump, performance data, valve stroking, load, temperature rise, calibration, environment, etc.
 - 26.2 Electrical Tests, e.g., load, impulse, overload, continuity, voltage, temperature rise, calibration, saturation, loss, etc.
- 27.0 Prototype Test Report – Report of the test which is performed on a standard or typical example of equipment, material or item, and which is not required for each item produced in order to substantiated the acceptability of equal items. This normally includes tests which may, or could be expected to, result in damage to the item(s) tested.
- 28.0 Certificate of Conformance – A document signed or otherwise authenticated by an authorized individual certifying the degree to which items or services meet specified requirements.

Supplier Quality Assurance Program Requirements

Note to the CTF/CQF:

Level 1 - Procurements require verification of the supplier's quality program through the performance of an evaluation or audit that compares against the national or international consensus standard designated in Section A.

Level 2 - Procurements that invoke a supplier quality assurance program, may apply the same consensus standard verification process as designated in Section A, otherwise designate evaluation methods in Section C. (Ref. 1Q, 7-2; 1Q, 18-3; and 3E, 1.1)

Section A

National Consensus Standards for Supplier Quality Program Requirements are identified, but not limited, to the ones listed below:

- ASME/NQA-1 Part 1 - Nuclear Quality Assurance Program Requirements (Pages 2-4 must be completed)
- ISO 17025 (Calibration/Testing Standard)
- NQA-1, Part II, Subpart 2.7 (Computer Software)
- ASME Section VIII Division 1 (Appendix 10)
- Other ISO 9001 (Quality Management System – Requirements)
- Other _____
- Other _____

Section B

Clarifications/Exceptions (as needed)

Clarification: A Quality Program based on a recognized National Consensus Standard (e.g. ISO, etc.) is acceptable for use as long as the elements identified in this document are addressed and the program meets or exceeds the requirements as specified.

Section C

For Level 2 procurements, methods of evaluating supplier's quality assurance program are:

1. The supplier will provide a copy of their Quality Assurance Manual for an adequacy/concurrence review, and
2. One or more of the boxes marked below will also be applied.

- Performance of an audit as defined in section A.
- Document submittals identified on EDR document (e.g. process procedures, welder qualifications, etc.)
- Submittal of current applicable ASME certificate
- Supplier Surveillance activities
- Receiving Inspection
- Other _____
- Other _____