Bilfinger Industrial Services Inc.
15933 Clayton Road, Suite 305
Ballwin, Missouri 63011

Approved abbreviation for Stamping:
BIS Inc.

Quality Control
Quality Control Manual

Description

Volume 2 – Field Assembly of Power Boilers, Assembly and Fabrication of Pressure Piping, Manufacture of Pressure Vessels, in accordance with ASME Section I, B31.1 and Section VIII, Division 1 and Metallic Repairs and/or Alterations in accordance with The National Board Inspection Code and Jurisdictional requirements.

Contact

Gary W. Cooper	Quality Control
Name	Department
229-420-0504 / 229-420-0354	gary.cooper@bisis-usa.com
Telephone Number / Fax Number	Email-Address

Responsible

Gary W. Cooper	Quality Control
Name	Department

Approval

Boudewijn van Lent	President & CEO
Name	Title

Edition 8, Revision 0

Bilfinger Industrial Services Inc.
Quality Control Manual – Volume 2
Form 21: Manual Transmittal Page

BILFINGER

Issued To (Site Manager)	Boulder Parsons	**Issued By**	Gary Cooper – Quality Mgr.
Issue Date	08/01/2017	**Manual Number**	219
Controlled/Uncontrolled	Controlled	**Project Location**	Albany, GA
Project Location Number	702938	**Project Owner**	Various Projects
Transmittal Reason	New Manual approved by the National Board and Hartford Steam Boiler on 07/27/17		

Receipt Confirmation

With respect to controlled copies of this Quality Control Manual, the previous version must be returned to the Bilfinger Industrial Services Inc. Quality Manager or destroyed. The preference is for the recipient to destroy the previous version at the project location noted above. After destroying the manual, confirm its destruction by signing/dating below and e-mailing a scanned copy to the Bilfinger Industrial Services Inc. Quality Manager.

☑ **Acknowledgement of Receipt of Revised Pages for** 219 Dakota B Parsons **Date** 10/30/2017

☑ **Acknowledgement of Destruction of Obsolete Pages:** 194 Dakota B Parsons **Date** 10/30/2017

Bilfinger Industrial Services Inc.
Quality Control Manual – Volume 2
Table of Contents

BILFINGER

Revisions Accepted: Gary M Cooper 07/27/2017 — **Quality Manager** — **Date** — **Authorized Inspector** 7/27/17 — **Date**

BILFINGER

1.1. Purpose

1.1.1. The purpose of Volume 2 of the Bilfinger Industrial Services Inc. (Company) Quality Control Manual (Manual) is to establish a quality control program for field installation, repairs, and alterations to power boilers, piping systems, unfired pressure vessels, and attachments, including field erection of power boilers, piping assemblies, unfired pressure vessels, and all other Code-related equipment in accordance with the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section I, Section VIII – Division 1, ASME B31.1 – Power Piping, and the National Board Inspection Code (Code).

1.1.2. This quality control program is designed to identify Code requirements, to satisfy the requirements, and to produce auditable documentation of Code compliance.

1.2. Policy

1.2.1. It is Company policy to separate the responsibilities for Quality Control from those of Production to assure compliance with the Code and applicable specifications.

1.3. Responsibilities

1.3.1. On all projects, the Site Manager shall:

1.3.1.1. Be responsible for organizing, planning, scheduling, and executing the work.

1.3.1.2. Be responsible for conformance to the requirements of the Code.

1.3.2. The Quality Manager shall:

1.3.2.1. Be responsible for the preparation, implementation, control, and revision of this quality control program.

1.3.2.2. Provide assurance that all performance and documentation shall be in strict compliance with both the letter and intent of the Code, this Manual, and in full cooperation with the Authorized Inspector.

1.3.2.3. Have the authority and the organizational freedom to identify quality control problems and contribute to their solution.

1.3.2.4. Have the authority to stop any phase of the work not in compliance with established procedures, and, when necessary, obtain Company Management support to correct nonconformance.

1.3.2.5. Have full authority and final responsibility to resolve nonconformance or disagreements pertaining to this program or to direct them to the President/CEO for resolution without compromise of Code requirements, this Manual and Jurisdictional rules.

1.3.2.6. Certifications include: authorization, approval and certification. Certifications will only be by written signature/initial and written date. At this time, certifications other than written will not be allowed. If in the future, the President/CEO of Bilfinger Industrial Services Inc. decides to allow certification methods other than written, this Quality Control Manual will be revised to describe the controls and safeguards to be employed to ensure the integrity of the certification.

1.3.3. All personnel, both operations and construction, shall recognize and respect the responsibilities and authority outlined herein.

7.26.2017

President/CEO **Date**

2.1. Scope

2.1.1. This Section outlines the system for controlling, distributing, and maintaining the Manual.

2.2. Responsibilities

2.2.1. The Quality Manager shall:

2.2.1.1. Be responsible for preserving the originals of the Manual and revised pages.

2.2.1.2. Be responsible for the production, registration, distribution, and recovery of controlled Manual copies.

2.2.1.3. Be responsible to ensure this Manual complies with the latest edition of the Code and shall document this review in writing on letter to file.

2.3. Procedures

2.3.1. Manual Distribution:

2.3.1.1. Distribution of Manuals/Manual updates shall be made using the Manual Transmittal Page (Form 21). The Manual Transmittal Page shall indicate, at the minimum, the Manual number, recipient, and distribution reason.

2.3.1.2. Receipt of Manuals/Manual updates and destruction of superseded Manuals/Manual Updates shall be confirmed in accordance with the "Receipt Confirmation" portion of the Manual Transmittal Page.

2.3.2. Controlled Manuals:

2.3.2.1. Controlled Manuals shall be issued for project reference and shall be indicated as "Controlled" on the Manual Transmittal Page.

2.3.2.2. Controlled Manuals shall be assigned a unique number. The Quality Manager shall maintain a Quality Control Manual Distribution Log (Form 1) recording the numbers.

2.3.2.3. Controlled Manual holders shall receive Manual updates and shall be responsible for maintaining their Manuals.

2.3.3. Uncontrolled Manuals:

2.3.3.1. Uncontrolled Manuals shall only be issued to individuals outside of the Company, for informational use only.

2.3.3.2. Uncontrolled Manuals shall not be updated. Uncontrolled Manual copies shall be current at time of issue, but need not be recovered later.

2.3.4. Manual Revisions:

2.3.4.1. When the Manual is revised to improve or include changes in Code requirements, the following guidelines shall be used:

2.3.4.1.1. The Quality Manager shall prepare a Manual Transmittal Page forwarding the original section of the Manual and proposed revised section to the Authorized Inspector prior to issuance and implementation.

2.3.4.1.2. The revised section shall be identified by the applicable revision starting with (1), running numerically. Each page of a section shall be revised to specify the applicable revision and date of the revision. The Quality Manager's and Authorized Inspector's acceptance signatures shall be on the Table of Contents. Forms used in the Manual shall be revised individually, and be controlled by revision number and date on the Index of Forms.

2.3.4.1.3. Revisions shall be implemented within six months of issuance of the latest Code Edition. The Quality Control Manager, at his discretion may promote this Quality Control Manual to the next numerical edition level (noted on the Title Page), at which time all previous revision levels will revert to zero.

2.3.4.1.4. The Quality Manager shall distribute to each holder of a controlled copy of the Manual a copy of the revisions via the Manual Transmittal Page providing room for acknowledgment of receipt of the revised section and requesting return or destruction acknowledgement of the superseded section.

2.3.5. The Quality Manager may issue site specific addenda utilizing colored pages to identify the changes, including forms. The Quality Manager's and Authorized Inspector's/ Inspector's acceptance signatures shall be on the Index of Supplemental Forms.

3.1. Organization

3.1.1. General Office Level

3.1.1.1. Operations Manager: Reports to the Chief Operating Officer (COO) and has direct control of Site Managers. Responsibilities include, but are not limited to:

3.1.1.1.1. Ensure orderly, economical, and efficient execution of work.

3.1.1.1.2. Provide direction and coordination of operational functions in support of work, including coordination of quality functions.

3.1.1.2. Quality Manager: Reports to the President/CEO. Responsibilities include, but are not limited to:

3.1.1.2.1. Prepare quality procedures required to direct field forces for compliance with applicable Codes.

3.1.1.2.2. Updating and revision of such procedures to reflect changes and amendments to applicable Codes.

3.1.1.2.3. Provide technical assistance and interpretation of Code requirements to office and field personnel involved in quality control.

3.1.2. Project Level

3.1.2.1. Site Manager: Reports to the Operations Manager. Responsibilities include, but are not limited to:

3.1.2.1.1. Direct activities of the field organization.

3.1.2.1.2. Ensure work is executed in accordance with Contract Documents.

3.1.2.1.3. Cooperate with Quality Manager in conforming to this Manual.

3.1.2.2. Superintendent: Reports to the Site Manager. Responsibilities include, but are not limited to:

3.1.2.2.1. The direction and performance of field craft activities and determining work assignments and priority.

3.1.2.2.2. Ensures that work is performed in accordance with Contract Documents.

3.1.2.2.3. Adheres to requirements of applicable Codes and quality control procedures.

3.1.2.3. Project Engineer: Reports to the Site Manager. Responsibilities include, but are not limited to:

3.1.2.3.1. Ensure jobsite engineering functions are executed in accordance with Contract Documents.

3.1.2.3.2. Control of Contract Documents.

3.1.2.4. Project Quality Control Manager: Reports to Quality Manager for quality control functions and to Site Manager for administrative functions. All projects involving Code work shall have an individual designated as Project Quality Control Manager on site. Responsibilities include, but are not limited to:

3.1.2.4.1. Review and documenting approval of materials related to quality control.

3.1.2.4.2. Authority to stop work when unresolved nonconformity is evident. Shall immediately notify Site Manager and Quality Manager of work stoppage due to nonconformity.

3.1.2.4.3. Completion, acceptance, and documentation of all required examinations and tests.

3.1.2.4.4. Act as liaison with the Authorized Inspector assigned to the project.

3.1.2.4.5. Maintaining the project record retention system for quality-related documentation as required by the Code and this Manual.

3.1.2.5. Project Quality Control Manager: Reports to the Quality Control Manager and is responsible for all quality related activities. All duties under the Project Quality Control Manager may be delegated to a Project Quality Control Inspector.

3.1.2.6. Material Controls Manager: Reports to the Project Quality Control Manager in all quality related control functions and to the Superintendent for all other functions. Responsible for:

3.1.2.6.1. Accurate and prompt reporting of all damaged equipment, material or consumables to the Project Quality Control Manager.

3.1.2.6.2. Accurate and complete withdrawal records of all welding related items, such as electrodes, backing rings, fluxes, and other items requiring documentation per this Manual.

3.1.2.6.3. Maintaining proper storage facilities for electrodes.

3.1.2.6.4. Maintaining clean, neat, accessible storage facilities for all quality related items.

3.1.2.6.5. Keeping the Superintendent and the Project Quality Control Manager aware of inventory status of materials and consumables related to quality control.

3.1.3. General – Small Projects

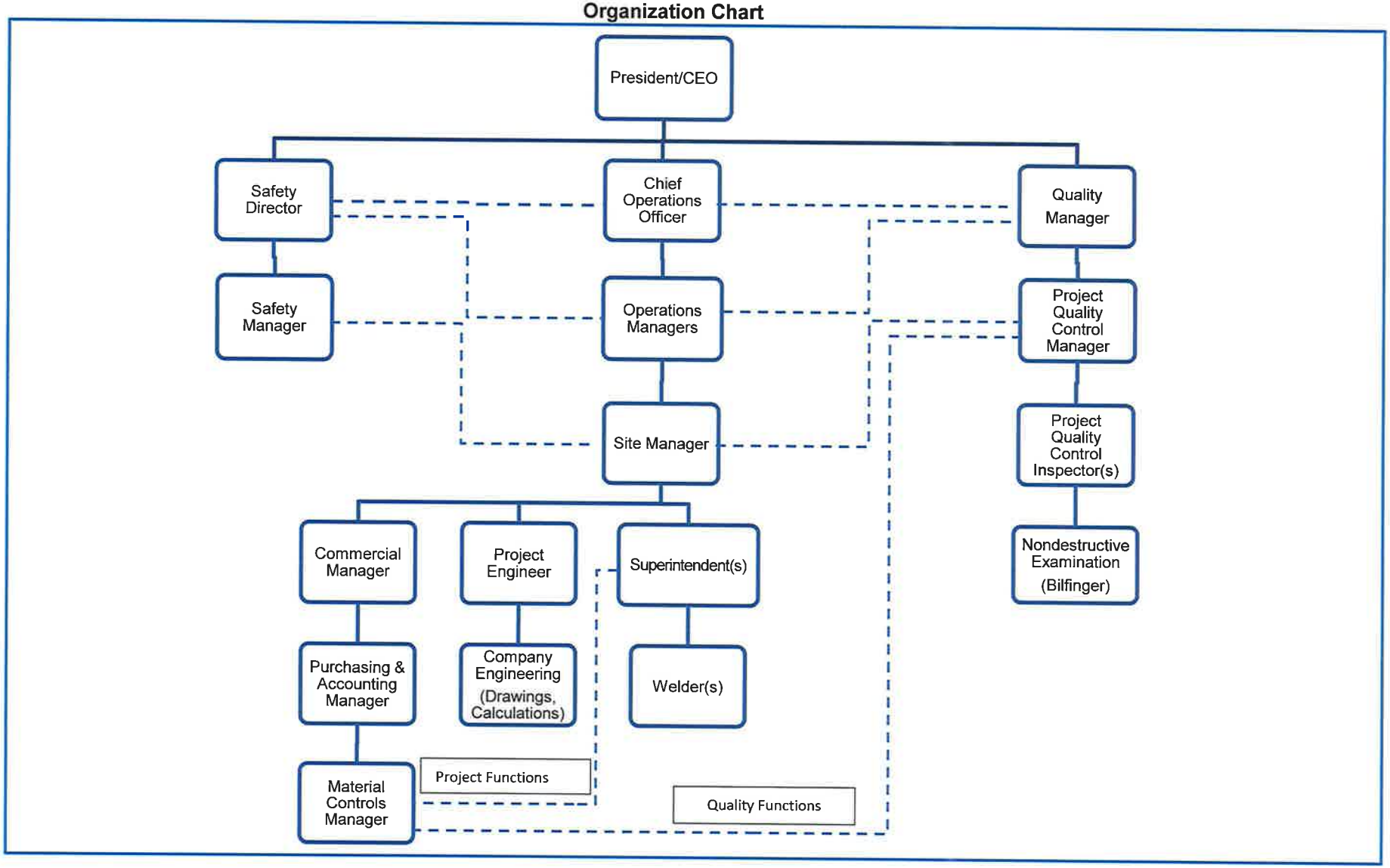
3.1.3.1. Small projects shall require the Quality Manager to work closely with Superintendent in carrying out functions of the Project Quality Control Manager.

3.1.3.2. The organization required for the successful implementation of the quality control program may be simplified, depending on the particular needs at each jobsite. These changes shall not lessen the requirements of the quality control program or applicable Code.

3.2. Delegation of Authority

3.2.1. Duties may be delegated, but responsibility remains with the original party.

Organization Chart



4.1. Policy

4.1.1. The Company does not intend to design piping, power boilers, pressure vessels, or to originate design calculations, drawings or specifications, but merely to fabricate and/or erect piping, boilers, and vessels designed by others. If design work is required, it shall be completed by the Company or subcontracted to an engineering organization familiar with the ASME Code (Section I and Section VIII – Division 1) design. The Company's policy is to control the flow of all drawings, design calculations, specifications, and subsequent revisions.

4.1.2. For repairs and alterations to pressure retaining Items conducted per Section 14 of this Manual, the required drawings and/or design calculations shall be prepared under the supervision of the Project Engineer or may be prepared by other Company personnel or subcontracted to an engineering organization familiar with the ASME Code (Section I and Section VIII – Division 1) and the National Board Inspection Code (NBIC).

4.2. Procedure

4.2.1. At the beginning of each new project, the Commercial Manager shall issue the Project/Job Number.

4.2.2. Upon receipt of design drawings, calculations, specifications, vendor's prints, and instructions from the Pressure Retaining Item Owner (hereafter PRI Owner), the engineering organization and/or its consulting engineer or the manufacturer of components, the Project Engineer shall review and log contents using the Drawing, Specification, and Vendor Print Control Log (Form 2).

4.2.3. The design documents shall be reviewed by the Project Quality Control Manager for Code compliance and shall indicate approval directly on the document.

4.2.4. Distribution of "Issued for Construction" documents by the Project Engineer shall be made to the Site Manager and other field personnel as required in accordance with a distribution list issued by the Site Manager.

4.2.5. The Master Control File of design drawings, calculation, specifications, vendors' prints, and instructions shall be available for inspection by the Superintendents and other field personnel. As documents are required for reference or use in the field, individuals on the distribution list may obtain copies from the Project Engineer, who shall ensure the distribution is noted on Form 2.

4.2.6. Control and distribution of revised documents shall be made by the Project Engineer in a manner identical to that specified in Paragraph 4.2.4. At the time a revised document is distributed, the superseded document shall be collected by the Project Engineer and destroyed, except for the record copy, which he shall mark "VOID – SEE REVISION NO._____".

4.2.7. The Project Engineer shall transmit PRI Owner's design drawings, specifications, and design calculations to the Project Quality Control Manager for review and approval prior to the purchase of material, fabrication or field erection. The Project Quality Control Manager shall review PRI Owner's documents to assure that applicable Code requirements are complied with and information relating to Code Edition, NDE, welding procedures, materials, design pressure, design temperature, minimum design metal temperature, and testing shall be included with the design specifications. The Project Quality Control Manager shall create a permanent job file, using the Company's project/job number, and establish necessary inspection requirements.

4.2.8. Prior to fabrication, all drawings, design calculations, specifications, and the latest revisions thereto shall be reviewed by the Project Quality Control Manager with the Authorized Inspector for the establishment of inspection points prior to fabrication.

4.2.9. Upon the return of client documents with a written approval and inspection sequence from the Project Quality Control Manager, the Project Engineer shall requisition materials and schedule fabrication/installation with the responsible Superintendent(s).

5.1. Policy

5.1.1. It is Company policy to maintain rigid controls over the quality of ASME Code materials, parts, and services by checking as they are received for compliance with requisitions, Purchase Orders, specifications, and applicable ASME Codes, to properly store such materials and parts, and to ensure nonconformities are identified and isolated.

5.2. Procedure

5.2.1. Code-related materials, parts, and services purchased by Company personnel shall be requisitioned by the Project Engineer. The subcontracting of subassemblies shall be arranged only with sub-contractors holding the appropriate Code certification. The Project Quality Control Manager shall approve the release of any Purchase Order for subcontract Code work.

5.2.2. The Project Quality Control Manager shall review and approve Requisitions (Supplemental Form S1) for Code compliance, identification with systems, and for requirement of material test reports and/or materials certification prior to submittal to Purchasing. Any material substitutions shall be reviewed and approved by the Project Quality Control Manager and accepted by the Authorized Inspector. Requisitions shall be identified to show whether they are "Code-related." Purchasing shall prepare the Purchase Order (Supplemental Form S2). The Purchase Order shall be prepared from the approved requisition. A copy of all Code Purchase Orders shall be sent to the Project Quality Control Manager for comparison to the approved requisition and for use by the Material Controls Manager. Material supplied by the PRI Owner may be accepted without the use of a requisition or Purchase Order. PRI Owner supplied material shall be inspected by the Material Controls Manager using the job specification and drawing for acceptance criteria and compliance with Code Requirements. Bilfinger Industrial Services Inc. retains Code responsibility for PRI Owner supplied material.

5.2.3. The Project Quality Control Manager shall arrange for receiving, inspection, and suitable storage areas for various types of materials and parts consisting of:

5.2.3.1. Open storage for non-Code items.

5.2.3.2. Segregated holding areas for Code items pending inspection.

5.2.3.3. Segregated storage area for conforming Code items after inspection.

5.2.3.4. Segregated storage area for nonconforming items pending disposition.

5.2.4. The segregated storage areas shall be identified by posted signs and separated by fencing or other effective means.

5.2.5. The Project Quality Control Inspector shall verify cold-formed shells, heads, and other pressure-retaining parts for certifications of compliance with the Code of construction.

5.2.6. The Project Quality Control Manager shall maintain a job file of all Code-related requisitions. Upon receipt of Code-related material, the Project Quality Control Manager shall inspect and complete the Material Receiving Inspection Report (MRIR) (Form 3), for damage, completeness of order, and compliance with the Code. Upon receipt of part stamped items fabricated by subcontractors or supplied by others, the Project Quality Control Manager shall perform a similar inspection and review the documentation to assure the Code requirements have been met. Upon completion of inspection, the Project Quality Control Manager shall complete the MRIR and attach vendor/subcontractor documentation, Manufacturer's Partial Data Report, and material test reports, if available. The Project Quality Control Manager shall then accept the material by marking the MRIR number on it, or for small parts, attaching an Approved Material Tag (Form 4) with the MRIR number, and have the material moved to the appropriate segregated storage area.

5.2.7. If further testing is required to be performed at receiving inspection or during manufacturing operations, the applicable procedures for control of this activity shall be documented by the Project Quality Control Manager.

5.2.8. Stock material shall be verified to ensure it is in conformance with the applicable Code prior to use in any construction or repair. Stock material shall be verified that the activities defined in paragraphs 5.2.6. and 5.2.7. have been completed.

5.2.9. Purchase Orders for all carbon steel and low-alloy items formed by subcontractors shall request certification that the items have been fabricated in accordance with the Code of construction.

5.2.10. The Project Quality Control Manager or Project Quality Control Inspector shall notify the Site Manager or Superintendent, as applicable, of any visual damage or nonconformance with Code requirements. The Site Manager shall direct corrective actions in accordance with Section 7 of this Manual to arrange for repair or return of the damaged or nonconforming items.

5.2.11. The Project Quality Control Manager shall file a copy of the requisition and all related documents in the project quality control master file. Related documents shall include, but not be limited to, copy of requisition, vendor or subcontractor documentation, drawings, packing slips, partial data reports, and material test reports. Material test reports shall be checked with ASME Section II for proper chemical

and physical properties. When ASTM materials are used, the Project Quality Control Manager shall verify acceptability by Code edition.

5.2.12. The Project Quality Control Manager shall make available, to the Authorized Inspector, all documentation required to verify compliance with the Code.

5.2.13. In the event that any Code material must be separated, the material specification, heat number, and MRIR number (from Form 3) shall be transferred to the unmarked section.

5.2.14. Appropriate material usage and identification shall be verified by the Project Quality Control Manager, at the time of fit-up inspection of each fabrication item, by initialing the Joint Process Control Sheet (Form 6) from Section 6 of this Manual.

6.1. Policy

6.1.1. It is Company policy to maintain surveillance of quality control functions on Code regulated installations.

6.2. Procedure

6.2.1. The Process Control Sheet (PCS) (Form 5 and Form 5A PCS Continuation Sheet as needed) is the master document for sequencing and controlling operations, examinations, and inspections. It specifies procedures and instructions, including revisions, to be followed for critical operations, hold points, check points, and when completed, documents special processes on the Joint Process Control Sheet (JPCS) (Form 6) and as needed on the JPCS Continuation Sheet (Form 7).

6.2.2. The Project Quality Control Manager shall be responsible for determining the number of PCS's required, work to be covered by each PCS, and PCS preparation.

6.2.3. The PCS preparer shall fill in sequence number(s), describe the activity, define inspection, and insert the welding procedure(s) or instruction identification. The preparer shall complete project references at the top of the PCS, assign a PCS number, and indicate PCS revision number.

6.2.3.1. A JPCS shall be prepared and used for weld joints. Documents, such as sketches, isometrics, and other instructions may be used to supplement welding or other special processes.

6.2.4. Prior to start of work, the Project Quality Control Manager shall review PCS and supplementing documents with the Authorized Inspector and indicate designated hold points. The Authorized Inspector shall document the PCS review by signature and date.

6.2.5. When required by contract, the PRI Owner may review and approve PCS and designate hold or check points.

6.2.6. The Project Quality Control Manager shall assemble PCS packages that include; approved PCS with reference to procedures, instructions, drawings, layouts, and supplemental documents. These documents may be at a central work station available to production personnel.

6.2.7. Satisfactory completion of operation sequences, examinations, inspections, tests, and release of hold or check points shall be indicated by initialing and dating the PCS and JCPS, as applicable.

6.2.8. The PCS may contain sequences which can be performed at any time without affecting planned sequencing or check and hold points. When performed, completion of these sequences shall be indicated by initials and date.

6.2.9. PCS revisions shall be handled in the same manner as the original, except when minor changes are required. A minor change is any change which does not affect a Quality Control or Authorized Inspector hold point. Minor changes may be noted on the original PCS without a revision change.

6.2.9.1. Original PCS's shall be marked "REVISED" and removed from the PCS package and maintained for documentation purposes by Project Quality Control Manager.

6.2.10. The Project Quality Control Manager shall be responsible to notify Authorized Inspector sufficiently in advance of hold points so Authorized Inspector may be at the site to perform designated inspections. Work shall not proceed beyond Authorized Inspector's hold points.

6.2.11. Final Inspection

6.2.11.1. When fabrication of a Code item is completed, Project Quality Control Manager shall perform final inspection and initial and date PCS when it meets dimensional and Code requirements.

6.2.11.2. The Authorized Inspector shall make final inspection immediately following hydrostatic test, when required. The Authorized Inspector shall initial and date PCS when satisfied it meets Code requirements.

6.2.11.3. When a vessel does not contain a manhole allowing internal inspection, a hold point shall be designated for Project Quality Control Manager and Authorized Inspector to permit internal inspection before final closure weld is made.

6.2.12. Hydrostatic Test

6.2.12.1. A System Data Test Report (Form 8) shall be prepared by the Project Quality Control Manager in compliance with Code of construction. The System Data Test Report shall be reviewed and accepted by Project Quality Control Manager, Authorized Inspector, and PRI Owner if required.

6.2.12.2. When accepted, the Project Quality Control Manager shall sign and date PCS. The Authorized Inspector shall be provided the PCS for signature and date.

6.2.12.3. At least one calibrated test gage shall be directly connected to the item or part being tested. The dial of the gage shall be graduated over a range of about double the intended maximum test pressure, but in no case less than 1½ times that pressure, (nor more than 4 times the intended maximum test pressure for ASME Code, Section VIII – Division 1 items). Digital pressure gages having a wider range of pressure readings may be used provided the readings give the same or greater degree of accuracy as obtained with dial pressure gages.

6.2.12.4. Hydrostatic test gauges shall be calibrated in accordance with Section 11.

6.2.12.5. Final pressure testing shall be witnessed by the Project Quality Control Manager and Authorized Inspector, documented on System Data Test Report (Form 8). At job completion, these documents shall be transmitted to PRI Owner by the Project Quality Control Manager. The Company shall maintain a copy in accordance with Section 12.

BILFINGER

7.1. Purpose

7.1.1. The purpose of this Section is to define the method of reporting nonconformances that shall be used by the Company during construction of ASME Code piping, boilers, and vessels.

7.1.1.1. A nonconformity is any condition which does not comply with the applicable rules of the Code, this Manual, or other specified requirements.

7.1.1.2. Nonconformities shall be corrected or eliminated before the component can be considered to meet Code requirements.

7.2. Scope

7.2.1. This procedure describes the responsibilities and activities associated with the identification, documentation, segregation, disposition, and reporting of nonconformances to affected organizations.

7.3. Responsibilities and Authorities

7.3.1. The Site Manager, with assistance from the Purchasing Manager if necessary, is responsible for coordinating the Company's nonconformance reports with suppliers.

7.3.2. The Quality Manager is responsible for the overall nonconformance program for the Company. He is also responsible for evaluating nonconformances to determine the need for corrective action.

7.3.3. The Project Quality Control Manager is responsible for identifying and reporting nonconformances within assigned areas of responsibility.

7.4. General

7.4.1. Nonconformances shall be identified, recorded and disposed of at the project level.

7.4.2. Nonconformances identified in approved design documents, which affect completed work, shall require the initiation of a Nonconformance Report (NCR) (Form 9).

7.4.3. Repair and rework procedures shall be qualified and approved as required by the applicable codes, regulations, standards, and technical specifications.

7.4.4. During processing of NCR's, all necessary supporting documentation, disposition instruction, or sketches shall be attached to the NCR and become part of the NCR record file.

7.5. Procedure

7.5.1. Anyone has the authority to initiate an NCR. Upon identification of a nonconformance, the Project Quality Control Inspector shall document the nonconformance on an NCR and shall develop the resolution as identified below.

7.5.2. The Project Quality Control Manager shall assign the NCR a unique identification number and log it on a Nonconformance Report Log (Form 10).

7.5.3. The Project Quality Control Inspector shall enter the assigned number, sign, and date the NCR, and forward it to the Project Quality Control Manager.

7.5.4. A Project Quality Control Inspector shall identify the nonconforming item by affixing the applicable Hold Tag (Form 11) on items or materials as required. The assigned NCR number shall be referenced on the tag, as well as on receiving reports, inspection or test checklists or other applicable quality control documentation associated with the nonconforming items or materials.

7.5.5. Whenever possible, the nonconforming item or material shall be moved to a segregated controlled area. When segregation is impractical due to size, weight, configuration, or susceptibility to handling damage, the items or material may be stored utilizing the tagging system at a location other than in segregated storage. In this case, the initiator shall document the storage location on the NCR.

7.5.6. The Project Quality Control Manager shall distribute information copies of the open NCR to all involved parties.

7.5.7. The Project Quality Control Manager shall review the proposed resolution and advise the Project Engineer of any comments. The Project Quality Control Manager or Project Engineer shall, when the nonconformity or its resolution may affect the design, refer the nonconformity to the design organization for reconciliation with the design calculations. The Project Quality Control Manager shall approve the resolution and present to Authorized Inspector for review and acceptance. Potential dispositions of an NCR shall be:

7.5.7.1. Use-As-Is – When the disposition is "use-as-is", the Project Quality Control Manager may consult with and obtain the approval of the Project Engineer who may consult with the applicable design organization. The Project Quality Control Manager shall obtain concurrence from the Authorized Inspector for "use-as-is" dispositions. Any required revisions to drawings, calculations, and procurement documentation shall be performed as described in this Manual.

7.5.7.2. Repair/Rework – All dispositions requiring repair or rework shall be made using approved procedures, special procedures, and PCS approved by the Project Quality Control Manager and accepted by the Authorized Inspector.

For repairs to base metal, the proposed disposition and PCS shall be submitted to the Authorized Inspector for acceptance of; repair method, extent of repair, and designation of required hold points.

7.5.7.3. Scrap/Return to Vendor – This disposition requires quality control verification on the Nonconformance Report that the item has been removed from the work area and clearly marked to prevent its inadvertent use prior to disposal.

7.5.8. When the nonconformity is part of a PCS or JPCS sequence process, the Project Quality Control Manager shall advise the Site Manager or Superintendent that a hold point is established at that sequence of operations and that further processing cannot be performed until corrective action has been implemented and completed.

7.5.9. Corrective action is the implementation and completion of the proposed resolution of the nonconformity. The Site Manager or his Superintendents shall be responsible for implementing corrective action in accordance with the proposed resolution.

7.5.10. The Project Quality Control Manager shall review the proposed resolution and the corrective action to be taken. Upon correction, the Project Quality Control Inspector shall reinspect the item as dispositioned above. When Code requirements and the dispositions have been met he will forward the Nonconformance Reports to the Project Quality Control Manager for final close-out and if applicable to the Authorized Inspector for acceptance. After the nonconformance has been resolved the Project Quality Control Manager will sign-off on the established hold points on the PCS or JPCS. The Project Quality Control Inspector will remove the hold tag or marking and release the item from the nonconforming status.

7.5.11. NCR's and their supporting documents shall be maintained by the Project Quality Control Manager and made available to the Authorized Inspector for review and acceptance.

8.1. Policy

8.1.1. It is Company policy to exert strict welding quality control to the extent that the Code requires.

8.1.2. All Code welding, including tack welding, shall be performed using Welding Procedure Specifications and Welders/Welding Operators qualified in accordance with the American Society of Mechanical Engineers (ASME), Boiler and Pressure Vessel Code (BPVC), Section IX and other applicable Code section(s) under which the scope of work shall be performed.

8.1.3. Welding procedures qualified by Bilfinger Industrial Services Inc. predecessor companies; Fruin & Colnon, Voss International, Watkins Engineers & Constructors, Inc., Fru-Con Construction Corporation, BIS Frucon Industrial Services, Inc., and BIS Industrial Services, Inc., may be used to support Bilfinger Industrial Services Inc. welding procedures. BIS Inc. shall take full responsibility for all welding procedures.

8.2. Welding Procedure Specifications

8.2.1. Welding Procedure Specifications shall be generated by the Project Quality Control Manager. The required test welds shall be made under the Project Quality Control Manager's supervision. Testing of the required specimens shall be performed to ASME, BPVC, Section IX requirements by a testing laboratory. The test reports submitted by the laboratory shall be reviewed by the Project Quality Control Manager. Upon acceptance, the Project Quality Control Manager shall prepare the Procedure Qualification Records and certify by signature and date.

8.2.2. Copies of qualified Welding Procedure Specifications and Procedure Qualification Records shall be provided to the Site Manager for use by production Welders/Welding Operators. The Project Quality Control Manager shall maintain the jobsite master file of Welding Procedure Specifications and Procedure Qualification Records.

8.2.3. Welding Procedure Specifications and Procedure Qualification Records shall be available for review by the Authorized Inspector.

8.2.4. A Welding Procedure Specification shall be revised when there is a change in a non-essential variable.

8.2.5. A new Welding Procedure Specification shall be prepared and qualified whenever an essential variable is changed. A copy of a new Welding Procedure Specification shall be sent to the Quality Manager.

8.2.6. The Company shall, at the discretion of the Quality Manager, use Standard Welding Procedure Specifications in accordance with ASME, BPVC, Section IX. A discrete demonstration shall be prepared and tested and if the results are acceptable, a Record of Demonstration shall be prepared and certified by the Quality Manager.

8.2.7. The Authorized Inspector may request requalification of a Welding Procedure Specifications at any time.

8.3. Qualification of Welders/Welding Operators

8.3.1. All Welders/Welding Operators to be used for Code welding shall be qualified in accordance with ASME, BPVC, Section IX under the supervision of the Project Quality Control Manager. Testing of the required specimens may be performed by a testing laboratory. The test report shall be reviewed by the Project Quality Control Manager. Upon review and acceptance, the Project Quality Control Manager shall prepare and certify, by signature and date, the Welder/Welding Operator Performance Qualification Record.

8.3.2. Copies of the Welder/Welding Operator Performance Qualification Records shall be provided to the Site Manager and Superintendent. The records shall be maintained in the Project Quality Control file.

8.3.3. Welder/Welding Operator Performance Qualification Records shall be available for review by the Authorized Inspector, who may request requalification.

8.4. Requalification of Welders/Welding Operators

8.4.1. Welders/Welding Operators shall be requalified per 8.3. when:

8.4.1.1. A change in Performance Essential Variable occurs.

8.4.1.2. They have not welded with the specific process for six months.

8.4.1.3. There is reason to question their ability to make welds that meet the specification.

8.5. Maintenance of Welder/Welding Operator Qualification

8.5.1. Each qualified Welder/Welding Operator shall be listed on the Welder/Welding Operator Continuity Log (Form 12). The Welder/Welding Operator Continuity Log shall be maintained by the Project Quality Control Manager from monthly data provided by the Project Quality Control Inspector. The log indicates the date each quarter on which the Welder/Welding Operator has welded in each process. The Project Quality Control Manager determines from this log when a Welder's/Welding Operator's qualification is expiring, and ensures that the Welder/Welding Operator performs welding or is requalified.

8.6. Production Welding

8.6.1. The Project Quality Control Manager shall be responsible for verifying Welders/Welding Operators are qualified, and for instructing each Welder/Welding Operator on Welding Procedure Specification requirements, as listed on the PCS, for each weld.

8.6.2. Each qualified Welder/Welding Operator shall be issued a unique stamp by the Project Quality Control Manager which shall be recorded on the Joint Process Control Sheet to identify each production weld and may stamp at intervals of no more than 36" around the weld.

8.6.3. Tack welds to be left in place shall be properly prepared for inclusion and visually inspected for defects. If defective, they shall be removed.

8.6.4. Each qualified Welder/Welding Operator, making tack welds which shall be left in place, shall be identified by entering the Welder's/Welding Operator's symbol on the Process Control Sheet (Form 5) or Joint Process Control Sheet by the Project Quality Control Manager.

8.7. Welding Material

8.7.1. All welding material shall be purchased and received as described in Section 5 of this Manual.

8.7.2. Welding material shall be stored in a dry storage space and issued to the field work areas by the Material Controls Manager in accordance with the applicable Welding Procedure Specification.

8.7.3. Low hydrogen coated electrodes will be received and stored in sealed containers. When the containers are opened the electrodes are placed in heated ovens and maintained at the temperature recommended by the manufacturer or ASME Code Section II Part C.

8.7.4. Low-hydrogen coated electrodes shall be issued by the Material Controls Manager only in a quantity sufficient to complete the weld or for a half shift, whichever is less. When kept in heated portable ovens the period may be extended indefinitely.

8.7.5. Unconsumed low hydrogen electrodes that are not maintained in a heated portable oven are inspected for damage, cleanliness, and identification by the Welder and returned to the Material Controls Manager. If acceptable the electrodes are designated for non-code use. Unacceptable electrodes will be scrapped.

8.7.6. Welding filler materials shall be issued and returned using the Weld Material Control Log (Form 13) executed by the Material Controls Manager.

8.8. Welding Records

8.8.1. Records in this section shall be available for review by the Authorized Inspector.

8.9. Subcontractor Welders/Welding Operators

8.9.1. The Company may utilize employees of another organization as Welders/Welding Operators provided that the following conditions shall be met:

8.9.1.1. Code work shall remain the responsibility of the Company.

8.9.1.2. Welding shall be performed using Welding Procedure Specifications, acceptable to the PRI Owner/User, belonging to the Company.

8.9.1.3. All Welders/Welding Operators shall be qualified in accordance with 8.4. of this Section. The Company shall retain exclusive administrative and technical control over their performance, including authority to assign and remove Welders/Welding Operators at its discretion.

8.9.1.4. The Authorized Inspector has accepted this program.

8.9.2. The following paragraphs shall be applicable only to B31.1 or non-Code work:

8.9.3. The Company may utilize Welders/Welding Operators that shall be qualified by a competent agency provided that the following conditions shall be met:

8.9.3.1.1. Code work shall remain the responsibility of the Company.

8.9.3.1.2. Welding shall be performed using Welding Procedure Specifications acceptable to the PRI Owner/User.

8.9.3.1.3. Welders/Welding Operators shall be qualified in accordance with Section IX of the ASME Code and the Company shall acquire and sign the Welder/Welding Operator Performance Qualification records and maintain them per Section 12 of this manual.

8.9.3.1.4. Verify the Welder/Welding Operator has maintained qualification in accordance with 8.6. of this Section.

8.9.3.1.5. The Authorized Inspector has accepted the use of the competent qualifying agency.

8.9.3.1.6. The welding is outside the scope of ASME Code Section I and Section VIII – Division I.

BILFINGER

9.1. Purpose

9.1.1. This Section describes the requirements for Nondestructive Examination (NDE) personnel, procedures, qualifications, certifications, and documentation.

9.2. Scope

9.2.1. When required by Code, the Company shall perform NDE. Company performed NDE shall be limited to:

9.2.1.1. Magnetic Particle (MT).

9.2.1.2. Liquid Penetrant (PT).

9.2.1.3. Visual Examination (VT).

9.2.1.4. All other NDE shall be subcontracted.

9.2.2. In the case of smaller jobsites that are not staffed with Company personnel that possess NDE qualifications, all NDE shall be subcontracted.

9.3. Responsibilities

9.3.1. The Quality Manager shall:

9.3.1.1. Appoint, in writing, subcontracted NDE Level III Representation.

9.3.1.2. Maintain copies of subcontracted NDE Level III Representative's written practice, written procedures, equipment calibration, and personnel documentation.

9.3.1.3. The subcontracted NDE Level III Representation shall:

9.3.1.3.1. Formally accept the appointment in writing.

9.3.1.3.2. Be qualified by education, training, experience, and examination for the type of NDE in which certification is appointed.

9.3.1.3.3. Provide NDE technical direction to the Quality Manager and/or Project Quality Control Manager.

9.3.1.3.4. When requested by the Quality Manager and/or Project Quality Control Manager, review the Company's and/or subcontractor's NDE written practices, written procedures, personnel records, and equipment calibration documentation for conformance to the applicable Code(s).

9.3.1.3.5. Perform NDE when assigned.

9.3.2. The Project Quality Control Manager shall:

9.3.2.1. Maintain written practice, written procedures, equipment calibration, and personnel documentation for:

9.3.2.1.1. Company NDE personnel.

9.3.2.1.2. Subcontracted NDE personnel.

9.4. Procedures

9.4.1. Company performed NDE:

9.4.1.1. Personnel shall be qualified and certified in accordance with the following Company NDE written practice and written procedures:

9.4.1.1.1. Written Practice Number WP-1 – Qualification and Certification of NDE Personnel, latest revision.

9.4.1.1.2. Procedure Number PT-1 – Liquid Penetrant Examination, latest revision.

9.4.1.1.3. Procedure Number MT-1 – Magnetic Particle Examination, latest revision.

9.4.1.1.4. Procedure Number VT-1 – Visual Examination, latest revision.

9.4.1.2. Vision Acuity:

9.4.1.2.1. Personnel performing NDE shall possess vision, with correction as necessary, capable of:

9.4.1.2.1.1. Reading a Jaeger Number 1 or equivalent type and size letter at a distance not less than 12".

9.4.1.2.1.2. Distinguishing and differentiating contrast among colors used in this procedure.

9.4.1.2.2. Vision acuity and color contrast differentiation capability shall be verified annually and recorded on a Vision Acuity Examination Record (Form 14).

9.4.1.3. The Company's NDE documentation and personnel records shall be made available to the Authorized Inspector. The Authorized Inspector may request procedure requalification, personnel requalification, or re-examination.

9.4.2. Subcontracted NDE:

9.4.2.1. NDE functions may be performed by qualified NDE subcontractors, whose written practice, written procedures, equipment calibration, personnel qualifications, and personnel certifications have been reviewed and accepted by the Project Quality Control Manager. This acceptance shall be documented by either letter to file or signature and date on the cover page of each document.

9.4.2.1.1. The Project Quality Control Manager may, as needed, request the assistance of the Company subcontracted NDE Level III Representation to resolve any disagreements that may arise concerning a subcontractor

NDE written practice or written procedure. This request for assistance shall be coordinated through the Quality Manager.

9.4.2.2. Subcontractor's NDE written procedures shall meet the requirements of ASME, BPVC, Section V – Nondestructive Examination.

9.4.2.3. Subcontractor's personnel qualification and certification shall be in accordance with their written practice, which shall conform to the American Society for Nondestructive Testing, recommended practice number SNT-TC-1A, latest Code accepted edition.

9.4.2.4. Subcontractor's NDE documentation and personnel records shall be made available to the Authorized Inspector. The Authorized Inspector may request procedure requalification, personnel requalification, or re-examination.

9.4.3. The Project Quality Control Manager shall review NDE reports and sign off the applicable PCS or JPCS sequence.

9.5. Records

9.5.1. NDE reports shall be retained in accordance with Section 12 of this Manual.

BILFINGER

10.1. Policy

10.1.1. It is Company policy to strictly conform to the requirements of the governing Codes, welding procedures, and engineering requirements applicable to the heat treatment of welds.

10.2. Procedure

10.2.1. Preparation, selection, review, approval, and distribution of Post Weld Heat Treat (PWHT) procedures, when required by Code, shall be the responsibility of the Project Quality Control Manager. PWHT shall be listed as a sequence on the applicable Process Control Sheet (Form 5) or Joint Process Control Sheet (Form 6).

10.2.1.1. The Project Quality Control Manager shall be responsible for surveillance of all PWHT processes.

10.2.2. PWHT may be subcontracted after obtaining approval of the vendor by the Project Quality Control Manager.

10.2.3. Heat treatment charts indicating metal temperature shall be marked with:

10.2.3.1. Project identification.

10.2.3.2. Heat treatment procedures with revision.

10.2.3.3. Signature of operator or subcontractor personnel.

10.2.4. The Project Quality Control Manager shall sign and date each heat treatment chart to signify the recorded data conforms to the actual heat treatment and that the heat treating operations conformed to the procedures specified and the Code.

10.2.5. The Project Quality Control Manager shall make applicable heat treatment charts available to the Authorized Inspector for review and acceptance.

10.2.6. The Project Quality Control Manager shall sign off the PCS for the particular heat treatment sequence.

10.2.7. Heat treatment charts shall be filed with records, in accordance with Section 12 of this manual, by the Project Quality Control Manager.

10.2.8. The Project Quality Control Manager shall review and file current calibration certificates of heat treatment equipment used in this process.

10.2.8.1. Items sent from the fabrication site shall be clearly identified.

10.2.8.2. Items returning to fabrication site shall be inspected for damages and identification.

BILFINGER

11.1. Purpose

11.1.1. This Section describes the control and calibration of tools, gauges, and instruments.

11.2. General

11.2.1. This section does not intend to imply the need for special calibration and control measures on rules, tape measures, levels, and similar devices when commercial practices provide adequate accuracy for the application.

11.2.2. The Project Quality Control Manager shall initiate and maintain the Measuring and Test Equipment Calibration Log (Form 15) for tools, gauges, and instruments at the site which are to be included in the calibration program. Each tool, gauge or instrument falling under the calibration program shall have the identification, the frequency of the calibration, date in service, and date out of service shown on the Measuring and Test Equipment Calibration Log (Form 15).

11.2.2.1. Gauges and instruments shall be calibrated prior to their use at the beginning of each project. Calibration shall expire after one year. Items shall be calibrated against a national standard utilizing approved calibration equipment, a deadweight tester, or calibrated master gauge.

11.2.2.2. A Calibration Tag (Form 16) shall be affixed to each tool, gauge, instrument, or container listed on the Measuring and Test Equipment Calibration Log, showing as a minimum, the equipment number, who performed the calibration, calibration date, and calibration due date.

11.2.2.3. The Project Quality Control Manager shall be responsible for maintaining traceability of calibrated tools, gauges, and instruments used for measuring.

11.2.2.4. The Project Quality Control Manager shall determine the required corrective action when a gauge or measurement instrument is found out of calibration. Materials or components, measured by the gauge or instrument in question since the last valid calibration, shall be considered unacceptable and treated as nonconforming until the Project Quality Control Manager has determined that the applicable requirements have been met.

11.2.2.5. "As-found" accuracy shall be reported, as well as accuracy after calibration.

11.2.2.6. Personal tools shall not be used for final inspection.

11.2.2.7. Records for this section shall be made available to the Authorized Inspector.

11.3. Calibration Subcontractor

11.3.1. The Project Quality Control Manager may subcontract calibration. The Project Quality Control Manager shall be responsible for assuring that instruments and gauges are identified when sent to the subcontractor and for review and acceptance of subcontractor calibration records.

12.1. Policy

12.1.1. It is Company policy to maintain all Quality Control and Code related documents necessary to provide the Authorized Inspector with specific information needed for conducting inspections during fabrication or installation, provide a working source of information for quality control activities, and to provide adequate and safe storage facilities for these records in the field during the course of the project and in the Quality Manager's office after completion of the project.

12.2. Documentation Retention

12.2.1. For S stamped items, radiographs and reader sheets, ultrasonic examination reports, and Manufacturer's Data Reports shall be maintained for five (5) years.

12.2.2. For U stamped items, the following records shall be forwarded to the Quality Manager and retained for three (3) years:

12.2.2.1. Manufacturer's Data Reports and Manufacturer's Partial Data Reports.

12.2.2.2. Manufacturing drawings.

12.2.2.3. Design calculations.

12.2.2.4. Material test reports or material certifications.

12.2.2.5. Welding Procedure Specifications and Procedure Qualification Records.

12.2.2.6. Welder/Welding Operator Qualification Records, Welder/Welding Operator Logs, and Welder/Welding Operator Continuity Logs.

12.2.2.7. Radiograph examination and ultrasonic examination reports.

12.2.2.8. Repair Procedures and Records.

12.2.2.9. Process Control Sheets and Joint Process Control Sheets.

12.2.2.10. Heat treatment records and test results.

12.2.2.11. Post weld heat treatment records.

12.2.2.12. Nonconformances and dispositions.

12.2.2.13. Hydrostatic test reports (Form 8 – System Data Test Report).

12.2.3. When required by the PRI Owner or Jurisdiction, Manufacturer's Data Reports shall be registered with the National Board. The Project Quality Control Manager shall forward the original Manufacturer's Data Reports to the National Board for registration within 30 days of certification date on Data Reports.

12.2.4. National Board Serial Numbers shall be controlled and issued by the Quality Manager, who shall maintain a record of issuance showing date issued, type of vessel to be used upon, and manufacturer's serial number, and date mailed.

12.2.5. Copies of the documentation package shall be transmitted to the PRI Owner, the Company Quality Manager's office, and copies of Manufacturer's Data Reports provided to the Boiler Manufacturer, PRI Owner/User, Jurisdiction, and the Authorized Inspector as required.

12.3. Code Stamping

12.3.1. The Project Quality Control Manager shall be responsible for the preparation and verification of correctness of the Manufacturer's Data Reports, nameplates, and stamping.

12.3.2. Upon completion of a fabricated Code item, the Manufacturer's Data Report shall be completed from the final records and certified in ink by the Project Quality Control Manager.

12.3.3. The completed Manufacturer's Data Report, together with the final records, shall be presented to the Authorized Inspector for review. When the Authorized Inspector is satisfied all Code requirements have been met, the Authorized Inspector shall sign and date the Manufacturer's Data Report and authorize and witness the application of the ASME certification mark to the nameplate, installation of the nameplate, or stamping on the Code item.

12.3.4. When Code pressure parts require the stamping of the Company Name, Bilfinger Industrial Services Inc., it shall be permitted to stamp the approved abbreviation: BIS Inc.

12.3.5. The Quality Manager shall have custody and control of the ASME certification mark and NB stamp. The Quality Manager shall issue the required Certification marks and R-stamp(s) to field sites when requested using the Request for Certification Mark / R Stamp and Nameplate (Form 17). The Quality Manager shall utilize the Notice of Shipping of Certification Mark / R Stamp and Nameplate (Form 18) to transmit Certification mark / R stamp(s) and nameplate(s) to the field sites. The field site Project Quality Control Manager shall maintain custody and control of the certification marks and R stamp(s) and shall return them to the Quality Manager upon completion of field fabrication utilizing the Notice of Return of Certification Mark / R Stamp (Form 19).

BILFINGER

13.1. Procedure

13.1.1. The Authorized Inspector is the third party inspector with a current and valid National Board AI Commission. The Authorized Inspector shall be employed by an ASME and National Board accredited Authorized Inspection Agency (AIA) with which the Company has an agreement to provide inspection services required by the Code. All required inspections are to be performed by the AIA of Record.

13.1.1.1. If there is a cancellation or change in the agreement with the Authorized Inspection Agency, the Quality Manager shall notify the ASME and the National Board.

13.1.2. The Authorized Inspector's hold points shall be inserted on the Process Control Sheet or Joint Process Control Sheet for those operations the Authorized Inspector wishes to witness or verify before fabrication proceeds. Work shall not proceed beyond the Authorized Inspector's hold points.

13.1.3. The Project Quality Control Manager shall be the Company's liaison with the Authorized Inspector and shall be responsible for keeping the Authorized Inspector advised of the work progress so the Authorized Inspector may make designated inspections.

13.1.4. The Authorized Inspector shall be furnished with drawings, calculations, specifications, procedures, process sheets, repair procedures, records, test results, and any other documents necessary to perform required duties.

13.1.5. NCR reports for Code deviations shall be submitted to the Authorized Inspector for acceptance.

13.1.6. All NDE procedures shall be demonstrated to the satisfaction of the Authorized Inspector.

13.1.7. The Project Quality Control Manager shall notify the Authorized Inspector sufficiently in advance of hydrostatic tests and other hold points so that the Authorized Inspector may witness the operation.

13.1.8. The final records, together with the completed Manufacturer's Data Report signed by the Project Quality Control Manager, shall be submitted to the Authorized Inspector for review and signature. When satisfied all Code requirements have been met, the Authorized Inspector shall authorize application of the ASME Certification Mark.

13.1.9. A controlled copy of this Manual shall be available for use by the Authorized Inspector.

13.1.10. The Authorized Inspector and Supervisor shall be provided free access to the project site where Code work is performed and to such parts of all project sites and suppliers' facilities when requested.

13.1.11. The Quality Manager shall provide any assistance requested by the Authorized Inspector Supervisor during the annual required audits and by the Authorized Inspector during required monitoring of the quality control system.

14.1. Procedure

14.1.1. The method of performing repairs or alterations shall be handled as described throughout this Manual. Repair and alteration activities requiring third party inspection shall be performed by a National Board commissioned Repair Inspector. The Repair Inspector (Inspector) shall be an individual who is currently employed by an Authorized Inspection Agency and either;

a. holds both an active National Board In-service Inspector Commission and an R Endorsement, or

b. holds both an active National Board Authorized Inspector Commission and an R Endorsement.

The Inspector shall perform the duties, and have all the opportunities described throughout this manual for the Authorized Inspector, to ensure compliance with the National Board Inspection Code (NBIC) and all applicable Jurisdictional rules.

14.1.2. Field repairs or alterations to pressure vessels, boilers, pressure piping, when required by the PRI Owner, shall be made in accordance with the requirements of the NBIC, the Code of Construction, the Jurisdiction, and this Manual.

14.1.3. For routine repairs, as defined below, the Inspector and the Jurisdiction, if applicable, shall be notified in advance that the repair project is to be undertaken. Routine repairs shall be performed using all the requirements of this manual; however, the Inspector's involvement shall not be required except for the final signing of the Manufacturer's Data Report. Routine repairs shall be defined as:

14.1.3.1. Routine Repairs - Repairs defined as routine repairs by the NBIC, with the acceptance of the Jurisdiction, may be given prior approval and performed without the in process involvement of the Inspector. The requirements for stamping may be waived. In the remarks section of Form R-1, the phrase "Routine Repair" shall be noted. Routine repairs shall be carried out utilizing a written procedure that has been reviewed and accepted by the Inspector or the repair method shall be discussed with the Inspector prior to performing the work. The Inspector shall be notified of the routine repair by the Project Quality Control Manager. All documentation addressed throughout this manual shall be prepared including Form R-1. The job package and Form R-1 shall be presented to the Inspector following completion for review and sign-off. Routine repairs shall be limited to four categories:

14.1.3.1.1. Welded repairs or replacements of valves, fittings, tubes, or pipes NPS 5 (DN 125) in diameter and smaller, or sections thereof, where neither postweld heat treatment nor NDE other than visual is required by the original code of construction. This includes their attachments such as clips, lugs, skirts, etc., but does not include nozzles to pressure retaining items.

14.1.3.1.2. The addition or repair of nonload bearing attachments to pressure-retaining items where postweld heat treatment is not required.

14.1.3.1.3. Weld buildup of wasted areas in heads and shells not exceeding an area 100 sq. in. (64,520 sq. mm) or a thickness 25% of nominal wall thickness or ½ inch (13 mm), whichever is less.

14.1.3.1.4. Corrosion resistance overlay not exceeding 100 sq. in. (64,520 sq. mm).

14.1.4. It shall be the responsibility of the Project Quality Control Manager to assure compliance with the Manual for repairs or alterations.

14.1.5. Repairs or alterations shall be subject to the acceptance of the Jurisdiction and Inspector as referenced in NBIC, who may require that evidence of prior acceptance of the method and extent of repair by the Jurisdiction or insurance carrier be provided by the PRI Owner.

14.1.6. The Project Quality Control Manager shall, prior to the start of work, provide the Inspector with drawings, calculations, procedures, Process Control Sheets, Joint Process Control Sheets, written repair plan, and any other documents, including a copy of the original Manufacturer's Data Report for the item if available, necessary for the Inspector to accept the repair/alteration and designate required hold points. When the original Manufacturer's Data Report cannot be obtained, agreements on the method of establishing design basis for the repair or alteration shall be obtained from the Inspector and the Jurisdiction, when required. The Project Quality Control Manager is responsible to have chemical analysis and hardness testing performed to verify its weldability and strength for unknown material, as a minimum.

14.1.7. The Project Quality Control Manager shall, if required by the Inspector, arrange for the Inspector's access to make such inspections of the items deemed necessary in order to accept the repair/alteration.

14.1.8. The Project Quality Control Manager shall keep the Inspector advised of the progress and completion of the work, so that the Inspector may be present to make designated inspections and accept the repair/alteration after final inspection.

14.1.8.1. Nondestructive examinations and tests required by the original Code of Construction of the pressure retaining item are required for the repair or alteration. If it is not possible or practical, alternative methods acceptable to the Inspector and Jurisdiction may be used, where required.

14.1.9. If, during the repair or alteration of an item, it becomes necessary to remove the original Manufacturer's nameplate or stamping, the Inspector shall, subject to the approval of the Jurisdiction, if applicable, witness the making of a facsimile or rubbing of the stamping, obliteration of the stamping, and the transfer of the nameplate or stamping to the new location on the vessel. The Code certification mark and designator shall not be re-stamped unless as allowed by the Code of construction.

14.1.10. Welding of repairs and alterations shall be performed in accordance with Section 8 of this Manual and the original Code of Construction.

14.1.11. Repairs and alterations shall be pressure-tested in accordance with the NBIC. In lieu of a pressure test, examinations and tests that verify the integrity of the repair and/or alteration may be used subject to acceptance of the Inspector and where required acceptance of the Jurisdiction.

14.1.12. Post weld heat treatment, when required, shall be performed in accordance with Section 10 of this Manual or the NBIC.

14.1.13. When authorized and witnessed by the Inspector, the stamping of or attachment of a nameplate to a repaired or altered vessel shall be adjacent to the original manufacturer's nameplate or stamping and shall comply with requirements of the NBIC. The Quality Control Manager shall have custody of the R stamp.

14.1.14. The repair or alteration, including a description of the relocation of the nameplate or stamping when required, shall be documented on the current NBIC form. The NBIC form shall be completed and signed by the Project Quality Control Manager.

14.1.15. The final records, together with the completed NBIC form and applicable Manufacturer's Partial Data Reports, Form R-3 (Report of Parts Fabricated by Welding – for non-ASME applications), and the original Manufacturer's Data Report if available shall be presented to the Inspector for review and signature on the appropriate Form R when satisfied that all Code and NBIC Code requirements have been met.

14.1.15.1. The final record package shall be assembled in accordance with the Assembly Checklist for NBIC Form "R" Packages (Form 20).

14.1.16. One copy of Form R-1 (Report of Repair) for welded repairs, with attachments, shall be distributed to PRI Owner, Inspector, Project File, the Inspection Agency responsible for in-service inspection, and when required, the Jurisdictional Authority by the Project Quality Control Manager. The NBBI shall receive an original of the report when required by the Jurisdiction or PRI Owner.

14.1.17. One copy of Form R-2 (Report of Alteration), with attachments, shall be distributed to the PRI Owner, Inspector, Project File, the Authorized Inspection Agency responsible for the in-service inspection of the vessel, and the Jurisdictional Authority. The NBBI shall receive an original copy of the report when so registered.

14.1.18. The Quality Control Manager shall maintain all NB Form "R" Reports and all supporting records and documentation substantiating the summary of the work. Records referenced in this Section of the Manual shall be available for review by the Inspector, easily retrievable and maintained in a storage file or the applicable job file for a minimum period of five years.

14.1.19. The Quality Control Manager shall maintain a single log identifying unique and sequentially numbered NB Form "R" Reports that are registered with the National Board. As a minimum, the Form R Log shall include:

14.1.19.1. Number issued.

14.1.19.2. Date assigned.

14.1.19.3. Description of item.

14.1.19.4. National Board Number.

BILFINGER

Form Number	Title	Revision Number	Date
1	Quality Control Manual Distribution Log	0	07/26/17
2	Drawing, Specification, and Vendor Print Control Log	0	07/26/17
3	Material Receiving Inspection Report	0	07/26/17
4	Approved Material Tag	0	07/26/17
5	Process Control Sheet	0	07/26/17
5A	Process Control Sheet – Continuation Sheet	0	07/26/17
6	Joint Process Control Sheet	0	07/26/17
7	Joint Process Control Sheet – Continuation Sheet	0	07/26/17
8	System Data Test Report	0	07/26/17
9	Nonconformance Report	0	07/26/17
10	Nonconformance Report Log	0	07/26/17
11	Hold Tag	0	07/26/17
12	Welder/Welding Operator Continuity Log	0	07/26/17
13	Weld Material Control Log	0	07/26/17
14	Vision Acuity Examination Record	0	07/26/17
15	Measuring and Test Equipment Calibration Log	0	07/26/17
16	Calibration Tag	0	07/26/17
17	Request for Certification Mark / R Stamp and Nameplate	0	07/26/17
18	Notice of Shipping of Certification Mark / R Stamp and Nameplate	0	07/26/17
19	Notice of Return of Certification Mark / R Stamp	0	07/26/17
20	Assembly Checklist for NBIC Form "R" Packages	0	07/26/17
21	Manual Transmittal Page	0	07/26/17
Supplemental Forms			
S1	Requisition	0	07/26/17
S2	Purchase Order	0	07/26/17

Form 1: Quality Control Manual Distribution Log

No.	Edition	Project Number	Owner	City	State	SM/QC Manager	Issue Date	By	Comment

Bilfinger Industrial Services Inc.
Quality Control Manual – Volume 2
Form 2: Drawing, Specification, and Vendor Print Control Log

BILFINGER

Project Information					
Prepared By	______	Date	______	Page	______ of ______
Project Location	______	Project Name/Number	______	Equipment Name/Number	______

Drawing/Specification/Vendor Print Number	Date Received	Rev. No.	No. of Copies	Distribution To	Date Issued	No. of Copies	Comments

Bilfinger Industrial Services Inc.
Quality Control Manual – Volume 2
Form 3: Material Receiving Inspection Report

BILFINGER

Project Information

Project Name/Number _____ Project Location _____ Page _____ of _____

MRIR Number _____ Purchase Order Number _____ Drawing Number _____

Specification Number _____ Equipment Number _____ Vendor/Manufacturer _____

Ordered Material _____

Markings as Received _____

Mill Test Report/Heat No. _____

Item/Part Number _____

Inspection Items

Description	A	CA	H	R	N/A	Comments
Legend: A = Approved, CA = Conditionally Accepted, H = Hold, R = Rejected, N/A = Not Applicable						
Identification and markings						
Physical damage						
Protection covers and seals						
Cleanliness						
Coatings and preservatives						
Insert gas blanket						
Desiccant						
Initial storage						
Documentation review						
Physical properties						
Dimensions						
Weld preparations						
Workmanship						
Lubricants and oils						
Electrical insulation						
Impact test acceptable						

Inspection Authorizations

Received By _____ Received Date _____ Inspected By _____ Inspection Date _____

Recommended Disposition _____

Corrective Action Required _____

Reinspected By _____ Reinspection Date _____ Reinspection Comments _____

BILFINGER

APPROVED MATERIAL TAG

Project Location _____

Project Name/Number _____

Equipment/Vessel/Tank _____

MRIR Number _____

Inspected By _____

Inspected Date _____

BILFINGER INDUSTRIAL SERVICES INC., BALLWIN, MISSOURI

Bilfinger Industrial Services Inc.
Quality Control Manual – Volume 2
Form 5: Process Control Sheet

BILFINGER

Project Information

Project Name/Number _____ Project Location _____ PCS Number _____

Drawing Number _____ Date _____ Page _____ of _____

Inspection Items

Function Performed	Completed (Initial & Date)		Comments
	QC	AI	
Authorized Inspector Notification			
Drawings & Calculations			
Material Inspection & Verification			
Pressure Test			
Manufacturer's Data Report			
Nameplate Stamping			

Seq. No.	Activity Description	Hold Point	Qty. of Welds	Pipe or Tube Size	Material Type	NDE Req'd		NDE Type	PWHT Req'd		WPS Number and Revision Number	Completed (Initial & Date)	
						Yes	No		Yes	No		QC	AI

* Designates Authorized Inspector Hold Point # Designates Customer Hold Point

Inspection Authorizations

Quality Inspector	Signature	Date	Authorized Inspector	Signature	Date

BILFINGER

Project Information

PCS Number _____ Date _____ Page _____ of _____

Inspection Items

Seq. No.	Activity Description	Hold Point	Qty. of Welds	Pipe or Tube Size	Material Type	NDE Req'd		NDE Type	PWHT Req'd		WPS Number and Revision Number	Completed (Initial & Date)	
						Yes	No		Yes	No		QC	AI

*** Designates Authorized Inspector Hold Point** **# Designates Customer Hold Point**

Inspection Authorizations

Quality Inspector	Signature	Date	Authorized Inspector	Signature	Date

Bilfinger Industrial Services Inc.
Quality Control Manual – Volume 2
Form 6: Joint Process Control Sheet

BILFINGER

Project Information

Project Name/Number		Project Location		JPCS Number	
PCS Number		PCS Sequence Number		Drawing Number	
WPS Number		WPS Revision Number		Page	of

Material Form	Joint Design	Weld Pass	Welding Process					Material	Comments
			FCAW	GMAW	GTAW	SMAW	Other	"P" No. to "P" No.	
☐ Piping ☐ Plate ☐ Other	☐ Butt ☐ Insert ☐ Fillet ☐ Backing ☐ Socket ☐ Open	Root Fill Cap							

Weld Number	Welder ID Number	Fit-Up		Root Pass		Cap Pass		NDE			Repair Acceptance				NCR Number
		QC	AI	QC	AI	QC	AI	Method	Pass	Fail	QC	AI	QC	AI	
		(Initial and Date)									(Initial and Date)				

*** Designates Authorized Inspector Hold Point # Designates Customer Hold Point**

Quality Inspector	Signature	Date	Authorized Inspector	Signature	Date

Bilfinger Industrial Services Inc.
Quality Control Manual – Volume 2
Form 7: Joint Process Control Sheet – Continuation Sheet

BILFINGER

Project Information

JPCS Number _____ Date _____ Page _____ of _____

Weld Number	Welder ID Number	Fit-Up		Root Pass		Cap Pass		NDE			Repair Acceptance				NCR Number
		QC	AI	QC	AI	QC	AI	Method	Pass	Fail	QC	AI	QC	AI	
		(Initial and Date)									(Initial and Date)				

*** Designates Authorized Inspector Hold Point # Designates Customer Hold Point**

Quality Inspector	Signature	Date	Authorized Inspector	Signature	Date

BILFINGER

Project Information

Date _____ Page _____ of _____

Project Name/Number _____ Project Location _____

Vessel/Tank/Equipment Details

Reference Drawing/Documents

Test Details

Test Number _____ Test Method _____

Test Medium _____ Test Pressure (PSIG) _____

Test Gauge Number _____ Gauge Calibration Date _____

Temperature @ Start (°F) _____ Temperature @ End (°F) _____

Pressure @ Start (PSIG) _____ Pressure @ End (PSIG) _____

Pressure Drop (PSIG) _____ Duration Pressure Held _____

Corrective Measures _____

Comments _____

Test Acceptance

Owner Representative	**Signature**	**Date**
Quality Inspector	**Signature**	**Date**
Authorized Inspector	**Signature**	**Date**

Bilfinger Industrial Services Inc.
Quality Control Manual – Volume 2
Form 9: Nonconformance Report

BILFINGER

Project Information			
Project Location		Project Name/Number	
Purchase Order Number		Drawing Number	
Specification Number		Manufacturer/Vendor	
Building/Area Number		Hold Tag Number	
Manufacturer/Vendor		Equipment/I.D. Number	
NCR Number		Date	

Nonconformance Cause – Organization

☐ Designer ☐ Fabricator ☐ Vendor ☐ Transportation

Nonconformance Cause – Type

☐ Error ☐ Omission ☐ Other

Nonconformance – Time of Detection

☐ Receipt Inspection ☐ Before Installation ☐ During Installation ☐ Other

Nonconformance Description

Attachments ☐ Yes ☐ No

Quality Inspector _____ **Signature** _____ **Date** _____

Authorized Inspector _____ **Signature** _____ **Date** _____

Recommended Disposition

☐ Use-As-Is _____
☐ Repair/Rework _____
☐ Scrap/Return _____

Quality Inspector _____ **Signature** _____ **Date** _____

Authorized Inspector _____ **Signature** _____ **Date** _____

Owner Review/Approval of Disposition

☐ Disposition Approved _____
☐ Disposition Revised _____

Quality Inspector _____ **Signature** _____ **Date** _____

Authorized Inspector _____ **Signature** _____ **Date** _____

Disposition Completed

☐ Accept _____
☐ Reject _____
☐ Hold Tag Removed _____

Quality Inspector _____ **Signature** _____ **Date** _____

Authorized Inspector _____ **Signature** _____ **Date** _____

Bilfinger Industrial Services Inc.
Quality Control Manual – Volume 2
Form 10: Nonconformance Report Log

BiLFINGER

Project Information			
Date	____________	Page	______ of ______
Project Name/Number	____________	Project Location	____________

NCR No.	Date Initiated	Nonconforming Item	Date Resolved	Date Signed-Off

BILFINGER

HOLD TAG

Project Location _____

Project Name/Number _____

Equipment/Vessel/Tank _____

NCR Number _____

Hold By _____

Hold Date _____

BILFINGER INDUSTRIAL SERVICES INC., BALLWIN, MISSOURI

Bilfinger Industrial Services Inc.
Quality Control Manual – Volume 2
Form 12: Welder/Welding Operator Continuity Log

BILFINGER

Project Information

Date ____________________
Page ________ of ________
Project Name/Number ____________________
Project Location ____________________
Welder Name ____________________
Employee Number ____________________
Welder Stencil Number ____________________
Other ____________________

Weld Process		Date	Verified By	Weld Process		Date	Verified By	Weld Process		Date	Verified By	Weld Process		Date	Verified By
SMAW				SMAW				SMAW				SMAW			
GTAW				GTAW				GTAW				GTAW			
FCAW				FCAW				FCAW				FCAW			
GMAW				GMAW				GMAW				GMAW			
Weld Process		Date	Verified By	Weld Process		Date	Verified By	Weld Process		Date	Verified By	Weld Process		Date	Verified By
SMAW				SMAW				SMAW				SMAW			
GTAW				GTAW				GTAW				GTAW			
FCAW				FCAW				FCAW				FCAW			
GMAW				GMAW				GMAW				GMAW			
Weld Process		Date	Verified By	Weld Process		Date	Verified By	Weld Process		Date	Verified By	Weld Process		Date	Verified By
SMAW				SMAW				SMAW				SMAW			
GTAW				GTAW				GTAW				GTAW			
FCAW				FCAW				FCAW				FCAW			
GMAW				GMAW				GMAW				GMAW			
Weld Process		Date	Verified By	Weld Process		Date	Verified By	Weld Process		Date	Verified By	Weld Process		Date	Verified By
SMAW				SMAW				SMAW				SMAW			
GTAW				GTAW				GTAW				GTAW			
FCAW				FCAW				FCAW				FCAW			
GMAW				GMAW				GMAW				GMAW			
Weld Process		Date	Verified By	Weld Process		Date	Verified By	Weld Process		Date	Verified By	Weld Process		Date	Verified By
SMAW				SMAW				SMAW				SMAW			
GTAW				GTAW				GTAW				GTAW			
FCAW				FCAW				FCAW				FCAW			
GMAW				GMAW				GMAW				GMAW			
Weld Process		Date	Verified By	Weld Process		Date	Verified By	Weld Process		Date	Verified By	Weld Process		Date	Verified By
SMAW				SMAW				SMAW				SMAW			
GTAW				GTAW				GTAW				GTAW			
FCAW				FCAW				FCAW				FCAW			
GMAW				GMAW				GMAW				GMAW			

Bilfinger Industrial Services Inc.
Quality Control Manual – Volume 2

Form 13: Welding Material Control Log

BILFINGER

Project Information

Project Name/Number ____________________
PCS Number ____________________
Drawing Number ____________________
Project Location ____________________
PCS Sequence Number ____________________
WPS Number ____________________
Page ________ of ________
JPCS Number ____________________
WPS Revision Number ____________________

Date	Welder/Welding Operator Name and Symbol		Base Material P Numbers			P.O. Number	Classification	Heat Number	Size	Quantity Issued	Issued By	Quantity Returned	Received By
				to									
				to									
				to									
				to									
				to									
				to									
				to									
				to									
				to									
				to									
				to									
				to									
				to									
				to									
				to									
				to									
				to									
				to									
				to									

Comments

____
____
____

Material Controls Manager	**Signature**	**Date**	**Quality Inspector**	**Signature**	**Date**

Bilfinger Industrial Services Inc.
Quality Control Manual – Volume 2
Form 14: Vision Acuity Examination Record

BILFINGER

Project Information			
Project Location	_____	Project Name/Number	_____
Employee Name	_____	Employee Number	_____

Employee Instructions

The eye examination shall be administered by an Ophthalmologist, Optometrist, Medical Doctor, Registered Nurse, Certified Physician's Assistant, or by other ophthalmic medical personnel, and must include the state license number.

Eye Examiner Instructions

1. Verify patient's close vision acuity to Jaeger J1 at 12 inches or greater. Check one of the following for each eye.

L	R	
☐	☐	Requires corrected vision to read Jaeger J1 at 12 inches or greater.
☐	☐	No correction is required to read Jaeger J1 at 12 inches or greater.
☐	☐	Unable to read Jaeger J1 at 12 inches or greater even with attempt at correction.

2. Verify, through a color perception examination, if patient is colorblind. Check one of the following for each eye.

L	R	
☐	☐	Patient is not colorblind.
☐	☐	Patient is colorblind.

3. Patient and Examiner Information

Patient's Name _____ Date of Examination _____

Examiner's Name _____ Telephone Number _____

Examiner's Address _____

City _____ State _____ Zip Code _____

4. Examiner's professional status – check only one.

☐ Ophthalmologist ☐ Optometrist ☐ Medical Doctor ☐ Registered Nurse ☐ Certified Physician's Assistant

Examiner's Signature _____ State License Number _____

Form 15: Measuring and Test Equipment Calibration Log

BILFINGER

Project Information

Prepared By ____________ Date ____________ Page ______ of ______
Project Location ____________ Project Name/Number ____________ Log Revision Number ______

Equipment Description	Manufacturer	Equipment Number	Function	Range	Calibrated By	Calibration Date	Calibration Due

BILFINGER

CALIBRATION TAG

Item _____

Item Number _____

Manufacturer/Model No. _____

Calibrated By _____

Calibration Date _____

Calibration Due Date _____

BILFINGER INDUSTRIAL SERVICES INC., BALLWIN, MISSOURI

Bilfinger Industrial Services Inc.
Quality Control Manual – Volume 2
Form 17: Request for Certification Mark / R Stamp and Nameplate

BILFINGER

Project Information	
Date	
Project Location	
Project Name/Number	
To	Gary Cooper, Quality Manager
From	

Requested Items

Request the following ASME/NBBI Code symbol stamp(s) and nameplate(s) be shipped to the above noted project location via overnight delivery.

- ☐ Certification mark and "S" designator
- ☐ Certification mark and "U" designator
- ☐ NBBI "NB" stamp
- ☐ NBBI "R" stamp
- ☐ NBIC Form R-1 "Repaired By" Nameplate
- ☐ NBIC Form R-2 "Altered By" Nameplate

The ASME/NBBI Certification mark / R stamps(s) shall be used for the below described work.

Work Description

Bilfinger Industrial Services Inc.
Quality Control Manual – Volume 2
Form 18: Notice of Shipping of Certification Mark / R Stamp and Nameplate

BILFINGER

Project Information	
Date	
Project Location	
Project Name/Number	
To	Gary Cooper, Quality Manager
From	

Requested Items

Per your request of XX/XX/XX, the following ASME/NBBI Code symbol stamp(s) and nameplate(s) have been shipped to your attention via overnight delivery.

- ☐ Certification mark and "S" designator
- ☐ Certification mark and "U" designator
- ☐ NBBI "NB" stamp
- ☐ NBBI "R" stamp
- ☐ NBIC Form R-1 "Repaired By" Nameplate
- ☐ NBIC Form R-2 "Altered By" Nameplate

The ASME/NBBI certification mark / R stamp(s) shall only be used on systems requiring Code control and work performed by Bilfinger Industrial Services, Inc. in accordance with applicable ASME/NBBI Code sections.

Comments

BILFINGER

Project Information	
Date	
Project Location	
Project Name/Number	
To	Gary Cooper, Quality Manager
From	

Requested Items

The following ASME/NBBI Code symbol stamp(s) have been returned to your attention via overnight delivery.

- ☐ Certification mark and "S" designator
- ☐ Certification mark and "U" designator
- ☐ NBBI "NB" Stamp
- ☐ NBBI "R" Stamp

Comments

Bilfinger Industrial Services Inc.
Quality Control Manual – Volume 2
Form 20: Assembly Checklist for NBIC Form "R" Packages

BILFINGER

Project Information			
Project Location _____		Project Name/Number _____	
NBIC Form R Package Type ☐ Form R-1 – Repair		☐ Form R-2 – Alternation	☐ Form R-3 – Fabricated Parts
Required "Form R" Package Documents – In Order of Package Assembly		**Q.C. Initials**	**Date**
NBIC Form R Report – Applicable R-1/R-2/R-3/R-4 Form(s)			
NBBI "R" Certificate of Authorization – Copy of Current Certificate			
Repair Plan			
Form 2 (Drawings, Specifications, and Vendor Print Control Log) and Attachments			
Design Calculations			
Manufacturers Original Data Report and Original Drawings			
Original Nameplate (Picture or Rubbing of Original Nameplate)			
Form 3 (Material Receiving Inspection Report) and Supporting Documentation			
Form 5 (Process Control Sheet)			
Form 6 (Joint Process Control Sheet)			
Form 7 (Joint Process Control Sheet – Continuation Sheet)			
Welding Documentation – WPS's/PQR's/WPQ's			
Form 12 (Welder Continuity Log) for Assigned Welders			
Form 13 (Welding Material Control Log) and Supporting Documentation			
Post Weld Heat Treatment Procedures and Supporting Documentation			
Non Destructive Examination Procedures and Technician Certifications			
Non Destructive Examination Reports			
Form 15 (Measuring & Test Equipment Calibration Log) and Supporting Documentation			
Form 8 (System Data Test Report) and Supporting Test Package(s)			
New Nameplate (Picture of New Nameplate or Picture/Rubbing of New Stamping)			
Final Package Assembly Acceptance: _____ **Quality Inspector**	_____ **Signature**		_____ **Date**

BILFINGER

Issued To (Site Manager)		**Issued By**	
Issue Date		**Manual Number**	
Controlled/Uncontrolled		**Project Location**	
Project Location Number		**Project Owner**	
Transmittal Reason			

Receipt Confirmation

With respect to controlled copies of this Quality Control Manual, the previous version must be returned to the Bilfinger Industrial Services Inc. Quality Manager or destroyed. The preference is for the recipient to destroy the previous version at the project location noted above. After destroying the manual, confirm its destruction by signing/dating below and e-mailing a scanned copy to the Bilfinger Industrial Services Inc. Quality Manager.

☐ **Acknowledgement of Receipt of Manual Number** ☐ _____ **Date** _____

☐ **Acknowledgement of Destruction of Manual Number** ☐ _____ **Date** _____

Requisition

FORM S1: REQUISITION, R1, 07/17/14

BILFINGER

REQ'N NO. _____

JOB NO. _____ REQ'N DATE _____

LOCATION _____

INQUIRY ☐ PURCHASE ☐ DATE REQUIRED: _____

ITEM	QTY.	DESCRIPTION (FULL DETAIL)	CODE

REQ'D FOR: _____ COST ESTIMATE $ _____

_____ ESTIMATED BY: _____

DELIVER TO & NOTIFY: _____

OTHER INSTRUCTIONS: _____

REQ'N ORIGINATED BY: _____ CODED BY: _____

REVIEWED BY: _____ DATE: _____

SUBSTITUTIONS AUTHORIZED BY: _____

PARTIAL ORDER O.K. ☐ NO ☐ BACK ORDER O.K. ☐ NO ☐

APPROVED FOR PURCHASE BY: _____ DATE: _____

P.O. NO.						
VENDOR						
ADDRESS						
TEL NO.						
UNIT	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
TOTAL						
F.O.B.						
TAX INCL.?						
TERMS						
SHIP DATE						
VIA						
FROM						
QUOTE BY						
DATE						

PURCHASED BY: _____ DATE: _____

ORIGINAL ☐ CONFIRMING ☐ PAGE ____ OF ____

FORM S-2: PURCHASE ORDER, REVISION 2, 06/12/2017

Bilfinger Industrial Services Inc.

PURCHASE ORDER DOCUMENT

BILFINGER

PO Number: FI426992
Amendment: 0
Jobsite - Job #: Home Office - Finance 70020
REQ Title: Welding Filler Metals
Project Name: 2017 Demonstration Vessel
Order Date: 5/4/2017

VENDOR: JONES WELDING & INDUSTRIAL SUPPLY P.O. DRAWER 71826 ALBANY, GA 31708 Quoted By: Kevin Wade Phone: 229-888-3917 Fax: 229-883-2445 E-Mail:	**VENDOR #:** 223298 **MBE %:** 100.00 **SHIP DATE:** 5/5/2017 **DELIVERY DATE:** 5/8/2017 **SHIPPED FROM:** Vendor **SHIPPED VIA:** Vendor Truck **F.O.B.:** Jobsite **TERMS:** Net 30 from receipt of invoice **TAXABILITY:** Taxable ☐ Tax On Freight **REQ NUMBER:** REQ-FI-431106
SHIPPING ADDRESS: Bilfinger Industrial Services Inc. 2000 Liberty Expressway SE Albany, GA 31705	**INVOICE ADDRESS:** Bilfinger Industrial Services Inc. PO Box 29227 St. Louis, MO 63126 BF-invoices@dataserv-stl.com

Instructions to Vendor

This material is for ASME Code use and shall be accompanied by certified material test reports at the time of shipment. All items shall have heat and lot numbers clearly marked on exposed surface. Soiled, marred, rusted, or old inventory will not be accepted.

		Phone	Fax
Buyer:	Trina Basler	636-391-4467	636-547-2200
Expeditor:	Trina Basler	636-391-4467	636-547-2200
Originator:	Gary Cooper	229-344-7240	229-430-1266

Terms and Conditions:

Please quote pricing and availability. Please make note of the DATE REQUIRED and quote accordingly. Also, please include estimated freight charge if applicable! Bilfinger Industrial Services Inc. Terms & Conditions and Code of Conduct located at http://www.is-usa.bilfinger.com/company/suppliers/ apply to this purchase order.

Order Items for PO-FI-426992

Item#	Quantity	Units	Catalog ID	Description	Order Type	PH. Cost Code	Taxable	Unit Price	Totals
1.	20	Lb		Welding electrode, 1/8" diameter, ASME SFA 5.5, Class E7018, F Number 4, A Number 2, electrode classification markings per ASME SFA 5.5, packaged in hermetically sealed containers. MTRs may be emailed to: gary.cooper@bisis-usa.com		1.20170001	☑	1.9706	39.41
2.	20	Lb		Welding electrode, 3/32" diameter, ASME SFA 5.5, Class E7018, F Number 4, A Number 2, electrode classification markings per ASME SFA 5.5, packaged in hermetically sealed containers MTRs may be emailed to: gary.cooper@bisis-usa.com		1.20170001	☑	2.0294	40.59
3.	10	Lb		Bare welding rod, 1/8" diameter X 36" straight lengths, ASME SFA 5.18, Class ER70S-2, F Number 6, A Number 1, classification markings per ASME SFA 5.18 – on end MTRs may be emailed to: gary.cooper@bisis-usa.com		1.20170001	☑	1.8382	18.38

	Sub Total:	98.38
	Sales Tax at 7.0000%	6.89
	Local Tax (if any) at 0.0000%	0.00
	Freight Cost:	0.00
PO-FI-426992	**Total:**	105.27

Seller Acceptance: _____ Date

Buyer: _____ Date