

**QUALITY CONTROL MANUAL**

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This Manual is approved by the Quality Manager and the Metallurgical Engineer as fully descriptive of the procedures to be followed in controlling the quality of its services.



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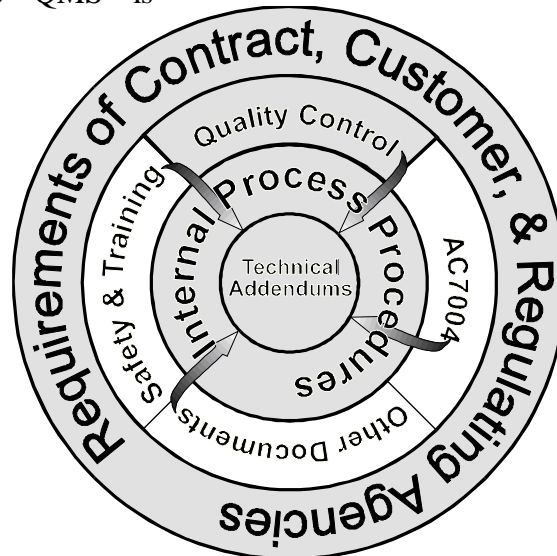
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**1. Quality System Overview**

**1.1 Scope, Mission and Philosophy**

This Manual describes the Quality Management System (QMS) of O&W Heat Treat, a special process supplier providing heat treat and brazing services under controlled conditions. The O&W QMS is a proactive system, the objectives of which are to ensure compliance with all customer and Prime quality and product requirements, for all metallurgical processing and services performed by O&W, while enhancing customer satisfaction. It is intended that this Manual, and its referenced documents, serve as a vehicle for compliance with applicable statutory and regulatory requirements and the requirements of AC 7004. The underlying philosophy of the QMS is Continuous Improvement. By making constructive use of feedback and data from our own processing experiences, customer comments and concerns, and safety, health and administrative issues, we are committing to and improving both the quality of the services we provide and the fiscal health of our own business. This means that our QMS is continuously evolving and changing as we improve and adapt to increasingly stringent industry requirements. It is our goal to ensure that the O&W QMS is designed with sufficient flexibility to meet constantly changing statutory, regulatory, and customer requirements while at the same time maintaining strict compliance to these same requirements. An overview of the QMS is depicted below.



**QUALITY CONTROL MANUAL****1.2 Quality Management System Overview**

As depicted in the preceding diagram, the Quality Control Manual is only one of several documents used to flow down requirements from customers and regulating agencies. All QMS procedures are available at any time to personnel responsible for compliance to requirements defined therein. QMS procedures are also available to customer and regulatory agency representatives upon request. Changes to the QMS shall require an analysis of the purposes of the change and their potential consequences, any impact on the integrity of the QMS, and availability of resources to implement the changes.

- The Quality Control Manual, is the primary vehicle for flow down of requirements related to metallurgical processing. The QC Manual defines control of procedure generation, document control, inspection, measuring and test equipment, heat treating equipment, special processes, critical purchased materials and supplies, quality records, handling, storage, packaging and delivery, employee training and continuous improvement. The QC Manual is available to all employees via network computers located throughout the plant. The QC Manual is also available to customers and regulatory agencies upon request.
- Internal Process Procedures, or IPP's, are internal documents which provide detailed instructions and procedures for performing a variety of tasks and inspections, such as hardness testing, pyrometry, braze joint inspection, purchasing of critical materials, etc. IPP's, as depicted in the diagram, are accessed through the QC Manual, and are referred to frequently throughout the QC Manual. IPP's are available to all employees via network computers located throughout the plant. IPP's are subject to ongoing revision and re-approval, based on new or revised specifications, changes to equipment, changes or improvements in techniques, changes in materials, tooling, etc.
- Technical Addendums, or TA's, are supplemental specifications that are directly tied to their parent IPP's. All baseline requirements of the parent IPP are in force for each of its downstream TA's, unless specifically superseded within a given TA to satisfy a customer specific requirement or other reason. TA's contain specific technical data, requirements or specific technical procedures that may or may not be customer-specific. Technical Addendums provide a convenient, easily undatable receptacle for storage of technical data or

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procedures, without requiring the revision and change of documents further upstream. TA's are filed with their respective IPP's in the Main Office; most are also available to all employees via network computers located throughout the plant.

The Technical Addendum numbering system is tied to the IPP numbering system, e.g., the Technical Addendums for IPP 006, Pyrometry, are designated TA006-1, -2 etc.

**QUALITY CONTROL MANUAL****2. Quality Control Organization and Mission Statement**

O&W's mission is to provide industry-leading heat treating and brazing services with ethics and expertise. Every employee at O&W Heat Treat is a critical member of the Quality Management System (QMS), and has an important contribution to make to its efficient operation, as we work together to ensure that all product leaving this facility is of the highest quality. Accordingly, each employee is required to comply with all aspects of the QMS, and further, is required to conduct themselves in an ethical, courteous and professional manner at all times. All employees will have access to QMS and related documents, and any relevant changes, at any time.

Compliance with the QMS will ensure conformity of our services to customer requirements, as well as ultimate product safety, and will help ensure continued success and growth of the company. Failure to comply with the requirements of the QMS will subject an employee to disciplinary action, as outlined in the Personnel Policy Manual.

It is management's responsibility to determine and provide the infrastructure, resources and environment needed to facilitate operation of our processes, to implement and maintain the quality management system, to continually improve its effectiveness and to ensure that each employee understands and performs their own critical role in that system. For this reason, our quality organization is, in fact, the company organization and a complete description have been detailed in the "Function & Organization Document." That document is available upon request. O&W Heat Treat has assigned the Quality Control Manager the responsibility for communicating, coordinating and directing the policies and directives of this manual and its related documents.

**2.1 Quality Control Manager**

The Quality Control Manager (QCM) is responsible for the establishment and the maintenance of the Quality Management System, shall serve as the Management Representative, and shall have unrestricted access to the President regarding resolution of quality management issues. The QCM is also responsible for ensuring that the QMS and the policies outlined in this manual become an integral part of day to day operations, and consistently achieve their intended results. The QCM has the authority, responsibility and organizational freedom to initiate action to prevent the occurrence of any nonconformance relating to product, process or quality system; to identify and record any problems relating to the product, process and quality system; to initiate, recommend or

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provide solutions through designated channels; to verify the implementation, impact and effectiveness of changes and solutions, and to control further processing or delivery of nonconforming product, as required, until the deficiency or unsatisfactory condition has been corrected. The QCM is responsible for ensuring that processes performed at O&W achieve their intended results.

**2.2 Quality Technicians and Inspectors**

Quality Technicians and Inspectors report to the QCM, and are responsible for ensuring that the procedures and policies that directly affect our customer's parts are properly implemented and executed in day to day operations. Their duties include, but are not limited to: document control; certification review and preparation; receiving inspection; hardness, braze, dimensional, load/shear and other product inspections; pyrometric testing.

**QUALITY CONTROL MANUAL****3. Control of Quality Management System****3.1 Management Review**

The President and the QCM, are accountable for the effectiveness of the Quality Management System, and shall ensure that quality policy and objectives established therein are compatible with the framework and strategic direction of the company. The QMS shall be subject to an annual review by management with executive responsibility to ensure its continuing suitability and effectiveness in satisfying the stated quality policy and objectives. This review shall include a review of the QC Manual and the IPP Manual. An annual sign-off sheet shall appear as an addendum to the QC Manual, and shall be signed-off by the President to indicate that the annual review has been performed. Any changes implemented as a result of this meeting will be documented. On a semi-annual basis, the management team, with representatives of the various work departments as required, shall meet to discuss, review, and plan changes to the overall QMS, to ensure it continues to be dynamic and effective in maintaining customer satisfaction, and services our customers with the highest quality possible.

**3.2 Self - Audit**

The QMS shall be subjected to a Self-Audit, conducted in accordance with IPP 016, Continuous Improvement, by the QC Manager or his designee on an annual basis, or at an increased frequency if necessitated by historical evidence. The auditor(s) may not audit his/her own work. The scope of the Self-Audit shall be at the discretion of the QCM, but shall include portions of all facets of the QMS; all Nadcap elements within the current scope of accreditation shall be addressed. Nonconformances discovered during the audit will be handled via the NMR system defined in IPP 025, Nonconforming Material and Corrective Action. Results of the Self -Audit, which shall include commentary by the QCM identifying opportunities for improvement when applicable, shall be formally reviewed and initialed by the President on an annual basis, indicating concurrence with both the scope and any corrective actions generated by the Audit. The QCM will see that responsible personnel take timely corrective action regarding any deficiencies found during the Self-Audit. The President shall utilize the results of Self-Audits in the planning process as he sees fit to improve the overall QMS. The Self-Audit is an internal document only. However, a summary can be made available upon request.

**QUALITY CONTROL MANUAL****3.3 QC Manual Control**

3.3.1 The QC Manual is under the control of, and shall be maintained by, the QC Manager. The QC Manual, and all new revisions thereof, shall be formally reviewed and released by the QC Manager. Additionally, the President shall review and sign-off the QC Manual after any revisions to the Manual. This review shall be indicated by utilization of a review/release stamp designated for that purpose.

3.3.2 The QC Manual shall be reviewed and signed by all employees. Any significant technical revisions to the QC Manual shall be flowed down to employees via the specification database system. The QC Manual is available to all employees at all times for review or consultation on the Specification Database. The QC Manual and QMS procedures shall be made available to customer/regulatory agencies upon request per IPP 023, Maintenance of Specifications, Documents and Quality Records.

**3.4 Due Date Schedule Variance**

3.4.1 This Quality Manual requires calibration and testing of virtually every aspect of O&W's business, including pyrometry testing of furnaces, dewpoint testing, microstructural testing, braze alloy testing and calibration of test equipment such as hardness testers, micrometers, etc.

Calibration and test frequencies, interval definitions, extension definitions and extension justifications for all applicable requirements of AMS 2750 shall be in accordance with that document - see IPP 006.

O&W required frequencies and allowable extensions for all other items appear in the table below, and are established in TA002-5, the Measurement Management System (MMS) for each item of equipment, test or activity. The MMS will also reflect any customer or Prime special frequency.

Equipment (furnaces, measuring equipment, etc.) that has exceeded its allowable extension shall not be used for production work.

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Required Frequency

Allowable Extension

Daily

None

Weekly

One day

Biweekly

Two days

Monthly

Three days

Bimonthly

Three days

Quarterly

Four days

Semi-annually

Six days

Annually

Twelve days

Biennial

Twenty four days

Every 5 years

Sixty days

**QUALITY CONTROL MANUAL****4. Procedure Planning and Information Control**

All documents and information encountered while working at O&W, including, but not limited to, specifications, blueprints, operation sheets, technical procedures, intellectual property, manuals, miscellaneous work documents and other technical or financial information of any kind, regardless of the media in which it appears, are the sole property of O&W and/or its customers/Prime Contractors, as applicable, and may not be removed, disclosed or disseminated in any way. Further, it must be presumed that all such information described above is protected under Department of Defense/ITAR regulations.

The distribution and control of customer and Prime Contractor specifications as well as all Military, AMS, AS and other Prime specifications, shall be controlled as outlined below. Requirements for Shop Traveler planning and generation for heat treating and brazing processes are also defined below. All internal, external and procedural documents are available for employee review via network computers located throughout the plant.

**4.1 Document Control**

All internal and external specifications, procedures and Shop Travelers are subject to a formal review/release procedure administered by the QC Manager and Engineering. Review/release of internal procedures and specifications shall be conducted by the custodian for the document in question (see TA 023-1). Satisfactory review/release shall be indicated by the use of the review/release stamp (electronic or manual) designated for that purpose, or by initialing and dating the cover page of the document. Shop Travelers shall be approved (electronically or manually) in the block designated for this purpose by both the Engineering and Quality departments. Changes to procedures that may impact customers or Primes will be communicated when appropriate.

Procedures for maintenance and revision control of documents shall be in accordance with IPP 023.

**4.2 Procedure Planning**

Planning, generation and documentation of specific processing procedures for use in the processing of production parts, including frozen processes, and personnel authorized to plan and change production processes, shall be accomplished in accordance with IPP 001, Process and Procedure Planning, and shall be consistent with the quality objectives

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defined in this QC Manual. Prior to any processing, work performed at O&W is subject to the approval of the relevant cognizant organization associated with the design authority when required. Any changes to production processes shall be assessed to verify that the desired effect has been achieved with no impact on product conformity.

**4.3 Quotations**

Evaluation and estimating of customer quotation requests and requirements shall be performed using the guidelines of IPP 001 (which covers generation and documentation of specific procedures for use in the processing, testing, etc.), while remaining consistent with all existing company objectives and requirements.

**QUALITY CONTROL MANUAL****5. Inspection**

Receiving, in-process, and final inspection procedures for production parts to be processed at this facility, including identification, traceability and inspection and test status, shall be conducted in accordance with IPP 002, Processing and Inspection.

**5.1 Receiving Inspection**

All parts received for processing at O&W Heat Treat, Inc. will be subject to a Receiving Inspection per IPP 002. This inspection includes a purchase order/contract review, spot-check of count, cross-check of purchase order vs. blueprint, hidden mechanical damage, processability, cleanliness, and in the case of brazing assemblies, dimensional inspection of braze joint clearances. These procedures are detailed in IPP 002. Orders which are determined to be 'not processable' at O&W, whether for technical reasons, inability to meet delivery requirements, or other reason, shall not be transferred or sub-contracted to another facility for processing. Such orders shall be returned to the customer with 'no work done'.

**5.2 In-Process Inspection**

In-Process Inspection may consist of a visual, peel or shear test examination per IPP 008, Braze Joint Inspection, and/or Hardness Inspection per IPP 003, Hardness Testing. Control of in-process inspection shall be in accordance with IPP 002.

**5.3 Final Inspection**

All processed parts shall be subject to a Final Inspection to verify that processing performed is in compliance with purchase order and/or contract requirements. This inspection may be at 100% frequency or may involve sampling. Those documents referenced in 5.2 are applicable to Final Inspection as well; IPP 002 is the controlling document for Final Inspection.

**5.4 Non-Conforming Material**

Nonconforming Material Reports and Corrective Action analysis, when required, shall be generated in accordance with IPP 025, and may arise from a finding at Receiving, In-Process or Final Inspection. Final disposition of nonconformances shall be in accordance with IPP 025.

**QUALITY CONTROL MANUAL****6. Control of Inspection, Measuring and Testing Equipment****6.1 Calibration Requirements**

Inspection, measuring and test equipment shall conform to the calibration systems control program defined by TA002-5, the O&W Measurement Management System. Calibrations and calibration verifications shall be traceable to internationally or nationally traceable standards. If no such standards exist, the basis or standard used for calibration shall be documented. All calibration of inspection, measuring and testing equipment performed by outside certifying agencies is controlled by IPP 012, Purchasing of Critical Materials and Services (See Section 9). Calibration reports shall be reviewed in accordance with IPP 012 and shall contain quantitative data obtained from calibration.

**6.2 Selection and Calibration of Inspection, Measuring and Test Equipment.**

Inspection, measuring and test equipment in use at O&W shall be selected after a review of the measurements to be made and the accuracy required - equipment capable of meeting the required criteria shall be selected. Inspection, measuring and test equipment which can affect product quality are identified in TA002-5 of IPP 002, and shall be calibrated/verified and adjusted as required, and at the intervals prescribed in that specification, in accordance with paragraph 6.1, above. The calibration intervals specified in TA002-5 are defined by the QC Manager, and are based on purpose, stability, frequency of usage and historical data, unless frequency is otherwise dictated by customer requirements. The QC Manager may, at his discretion, alter the calibration schedule based on the results of previous calibrations.

**6.3 Inspection, Measuring and Test Equipment from Outside Sources**

All inspection, measuring and test equipment borrowed, on loan or supplied by customers or other sources are subject to all the requirements of Section 6 of this manual, and shall be reviewed for up-to-date calibration stickers prior to use at this facility. All such equipment shall be made available for use by the customer as required to determine contract conformance. Customer-owned equipment or fixturing of any kind shall be treated with care and safeguarded from damage while in O&W control, and shall be returned to the customer if damage, inaccuracy or other issue is detected or suspected.

**QUALITY CONTROL MANUAL****6.4 Handling, preservation and storage of inspection, measuring and test equipment**

The handling, preservation and storage of all inspection, measuring and test equipment shall be such that the accuracy and 'fitness for use' of the equipment is maintained. All measurement standards shall be traceable and shall have accuracy, stability, range and resolution as required for the intended use. Unless otherwise specified, the collective uncertainty of measurement standards shall not exceed 25% of the characteristic being calibrated.

Inspection, measuring and test equipment shall be utilized in an environment which has been controlled to the extent necessary to assure continued measurements of the required accuracy. Factors such as temperature, humidity, vibration, cleanliness, etc. shall be controlled to the extent possible and necessary, giving due consideration to the operating location of the equipment in question.

Inspection, measuring and test facilities, including test hardware, shall be safeguarded from adjustments which would invalidate the calibration setting.

**6.5 Identification and Restrictions**

All calibrated inspection, measuring and testing equipment shall be properly identified (e.g., stickered) and dated by the certifying agency, with a specific due date clearly defined. See IPP 012. Section 10 of this manual addresses the maintenance of calibration records for inspection, measuring and test equipment. Any inspection, measuring and test equipment which has calibration restrictions shall be clearly identified regarding said restrictions, to preclude its use for improper acceptance of production parts. Any inspection, measuring and test equipment that is out of calibration or out of service shall be so labeled or identified.

**6.6 Recall System**

TA002-5 of IPP 002 defines a recall system to ensure the timely recall of inspection, test and measurement equipment to assure timely recalibration. TA002-5 also addresses the subject of out-of-tolerance equipment.

**QUALITY CONTROL MANUAL****7. Equipment & Process Control**

The following controls and testing are in force to ensure that all heat treating equipment (furnaces and freezers) conform to AMS 2750 and all customer pyrometry requirements. IPP 006, Pyrometry, is the primary document for pyrometric procedures and guidelines. Furnace operation and maintenance procedures, including thermocouple replacement schedules, shall be in accordance with IPP 004, Furnace Operation and Maintenance. Changes to production or pyrometric equipment which could affect production processes shall be documented and addressed as specified in IPP 004 and IPP 006. Equipment in storage shall be carefully preserved and periodically checked for condition and suitability for its intended purpose. Instruments or processing equipment out of calibration or out of service shall be so labeled or otherwise identified.

**7.1 Instrument Calibration**

Pyrometric instrument calibration shall conform to AMS 2750 and shall be in accordance with IPP 006.

**7.2 Systems Accuracy Check (SAT, LSAT, ASAT)**

This testing shall be performed in accordance with IPP 006 .

**7.3 Temperature Uniformity Surveys (TUS)**

All TUS frequencies, frequency reductions and procedures shall be in accordance with IPP 006.

**7.4 Thermocouples**

Thermocouples for controllers, recorders, overtemperature instruments, SAT, load monitoring and TUS shall conform to the requirements of AMS 2750, and shall be in accordance with IPP 006.

**7.5 Process Control Testing Program**

IPP 014, Process Control Testing (PCT), serves to analyze customer, industry and related processing and control specifications, evaluating each for the required periodic testing and frequency of testing. Processes and testing performed at O&W, as well as subcontracted testing and calibrations directly related to processing, including, but not limited to, destructive testing, NDT and pyrometric testing and calibrations are subject to the PCT program.

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IPP 001 will generate procedures based on a review of each customer specification, as well as a review of the process control testing as outlined by IPP 014. Routine testing may be incorporated in the procedure being generated, while less frequent testing may be identified during a Receiving Inspection review of IPP 014 and the PCT database, and will be so noted on the specific traveler. The intent of this methodology is to validate all verifiable processing via routine monitoring and measuring, e.g., hardness testing, visual examination, microstructural examination, X-Ray, ultrasound, peel testing, load testing, etc.

Metallography and metallographic controls shall be in accordance with IPP 011, Metallography. Unverifiable processes will be validated via ongoing processing and testing in accordance with IPP 004, IPP 005, IPP 006, IPP 014 and IPP 022.

#### 7.6 Heat Treat/Braze Fixtures, Baskets, Tooling etc.

Whether O&W owned or customer owned, care shall be taken to safeguard baskets, tooling, fixturing, graphite plates from damage, wear, deterioration, contamination and any other detrimental condition which could affect the fit/function of the tool or fixture, or which might negatively impact a production part. Any suspect basket, tool, fixture or plate that is O&W owned shall be reviewed by QC prior to returning to production use. Suspect customer-owned items shall be returned to the customer for review. See section 9 regarding additional controls for fixturing and tooling.

**QUALITY CONTROL MANUAL****8. Process & Procedure Approvals**

Specific customer or Prime Contractor approval or certification is required prior to processing of virtually all production parts. This requirement may constitute an annual audit certification, pre-approval of a part-specific procedure, government source control, etc..

**8.1 Certification/Approval**

When government source, Prime Contractor or customer approvals and/or certifications of processes, procedures, equipment or personnel is required by purchase order or contract, such approvals and/or certifications will be verified prior to the planning and processing of production work, in accordance with IPP 001 and IPP 002. Evidence of such approval or certification will be submitted upon request to any duly authorized agent of the customer.

**8.2 Sub-contractor Processing**

When processing is performed by a subcontractor, O&W Heat Treat, Inc. will verify that the source has the necessary certifications and/or approvals on file prior to processing production work. Critical sub-contractor processing shall be procured in accordance with IPP 012 (See Section 9). IPP 012 defines those processing services deemed critical, as well as the procedures for selection and control of suppliers.

**QUALITY CONTROL MANUAL****9. Control of Purchased, Supplied or Fabricated Materials and Services**

Purchased materials and services which are to become part of the finished product or effect the processing performed on the finished product are deemed critical and shall be procured in accordance with IPP 012. Critical Materials and Services include, but are not limited to: thermocouples, braze alloys, pyrometric instrument calibrations, process gases, micrometers, shear gages, hardness testers and sub-contracted processing (e.g., plating, welding, NDT, etc.). Management will perform ongoing risk analysis and evaluation to identify purchased services and materials that, if nonconforming, would put O&W processing and/or customer product at risk. Based on this ongoing analysis, controls are in place (dewpoint testing, brazeability studies, etc.) to detect nonconformances and mitigate potential risk.

**9.1 Control of Materials and Tooling/Fixturing**

Customer-supplied critical materials such as braze alloy or tooling/fixturing shall be reviewed in accordance with IPP 012 by the Quality Manager, or his designee, prior to release for production work to ensure that: a.) braze materials are accompanied by proper material certifications (or the braze alloy lot is identified on the customer's paperwork) and b.) calibration controlled tooling/fixturing (i.e., tooling or fixturing with calibration stickers) has up-to-date calibration stickers. Customer-supplied tooling/fixturing must be properly identified with part number, Prime and owner, as applicable. Out of calibration or suspect tooling/fixturing shall be returned to the customer for recalibration prior to use on production hardware, or shall be identified as out of calibration or out of service - it need not be immediately returned for calibration, but must be recalibrated prior to production use. No customer supplied fixture or tool may be modified, repaired or adjusted by O&W personnel without specific purchase order or other written instructions.

A tooling/fixturing log will be maintained in the braze room, which will be used to facilitate tracking, status, and ownership of tooling, including O&W fabricated tooling. Part number specific induction coils and fixturing shall be stored in clearly labeled boxes in the induction area. Care shall be taken to safeguard all tooling/fixturing and coils from damage, wear deterioration, contamination and any other detrimental condition which could effect the fit/function of the tool or fixture, or which might negatively impact a

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production part. Tooling/fixtures in storage shall be periodically checked as required to verify condition and suitability.

Braze material which arrives pre-assembled by the customer must be so noted on the purchase order, including braze specification and lot number. A material certification for the braze alloy is not required in such an instance, but do not process purchase orders which are missing the braze specification and lot number.

Unassembled, supplied braze materials shall be stored and maintained as would O&W braze materials, in accordance with IPP 018, Brazing-Furnace, Induction, Torch.

Supplied materials / tooling which are damaged, lost or otherwise unsuitable for use will be addressed via IPP 025, and reported to the customer.

**QUALITY CONTROL MANUAL****10. Quality Control Records**

All information recorded on internally generated Quality Control Records shall be recorded neatly, precisely, legibly, accurately, completely and in ink, and shall include identification of the person recording the information and the date the information was recorded. Corrections (cross-outs), when necessary, shall be made with a single line, leaving the original information legible. Refer to IPP 020, Signature and Stamp Control and Authorization Matrix and IPP 023 for additional details and requirements. When applicable, Quality Control Records shall be traceable to the production job involved.

**10.1 Internal Quality Control Records**

Internal Quality Control Records include, but are not limited to: Furnace Charts, Certifications, Processing Travelers, Customer-Approved Processes and Procedures, Personnel Approved for Special Processes, Nonconforming Material Reports and Corrective Action Reports, Log Book entries, Test Reports, Temperature Uniformity Surveys, System Accuracy Checks, Dewpoint and Leak-Up Rate Logs, Customer Satisfaction Surveys, Calibration Verifications and Reports, Management Review Records, Self-Audits, Supplier Audits, Evaluations and Verifications and this Quality Manual.

**10.2 External Quality Control Records**

External Quality Control Records include, but are not limited to: Process Gas Certifications, Braze Alloy Certifications, Calibration Certifications, X-Ray reports, etc.

**10.3 Quality Record Maintenance**

All Quality Control Records shall be maintained in accordance with IPP 023. See IPP 023 for Special Record Retention requirements (e.g., Flight Safety parts, etc.)

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**11. Handling, Storing, Packaging & Delivery**

Handling, packaging, storage and delivery of all parts shall be in accordance with IPP 009, Packaging and Shipping.

**QUALITY CONTROL MANUAL****12. Employee Training and Safety**

A formal, ongoing training program has been established for all employees. This program shall be administered in accordance with IPP 022. The program is designed to ensure that all employees involved in work relating to the conformance to all customer, product and regulatory requirements, are competent and aware of the relevance and importance of their activities, and of how they contribute to the achievement of the QMS objectives. Additional training requirements are detailed in various IPP's (e.g., IPP 003, Hardness Testing). Technical Training Topics (TTTs), as administered via IPP 022, constitute a part of our overall plant procedures unless superceded by Shop Traveler, purchase order, B/P or specification requirement.

IPP 013, Safety and Communications, as well as the Safety Database, are available and applicable to all employees via any shop computer terminal, for activities performed on the grounds, or while performing duties for O&W off-site, without exception. The Safety DB contains SDS/MSDS information for all substances used at O&W. IPP 013 details a variety of safety programs for many activities throughout the shop, including, but not limited to, compressed gas cylinder safety, electrical safety and lock out/tag out (LOTO) procedures, forklift safety, solvent and chemical safety, hot work safety, furnace operation safety and manual brazer safety. All employees are required to comply with all safety programs flowed down via IPP 013 as well as detailed safety information that may be included in IPP's, Safety Manuals, Safety Database, TA's, TTT's and general safety pamphlets, signs and notifications throughout the shop. Employees are further required to immediately cease work in the effected area and to notify a supervisor should they detect or suspect an unsafe working condition of any kind.

**QUALITY CONTROL MANUAL****13. Continuous Improvement**

The Continuous Improvement program shall be administered in accordance with IPP 016. The intent of this program is to gather external and internal insights, perspectives, strategic and tactical inputs and data, from all areas and aspects of the company's operations. This information is then evaluated, with a goal of continuously improving the QMS and overall efficiency, as well as the effectiveness of the business, and take positive action where appropriate to implement necessary or desirable changes. The impacts of these changes will also be analyzed to insure that the implementation is fully integrated with all other aspects of the QMS as required. The resources available to the company will be used for the upgrade or acquisition of improved systems and processing equipment and/or the manpower necessary to achieve those goals or changes. Areas which contribute data to Continuous Improvement evaluations include, but are not limited to:

- Nonconforming material reports generated at Final, In-Process or Receiving Inspection.
- Performance and maintenance logs and reports.
- Customer feedback, including rejections, suggestions, surveys, or other commentary.
- Customer satisfaction as a function of conformance to requirements, scheduling, quality, pricing, and technical support.
- Self-audits, Prime, customer, and third party audits.
- Pyrometric observations related to Heat Treating Equipment Control.
- Purchased materials and supplies where they affect quality of process, cost of process, etc..
- Health and Safety issues including ergonomic issues.
- Production hardness or other processing-related data.
- Specifications and Supplier Quality Requirements from Prime contractors and customers.
- Statutory and regulatory requirement from all sources.
- Quality Management Reviews and Management Meetings.

**QUALITY CONTROL MANUAL****14. Conduct, Ethics and Fraudulent Activity**

14.1 Employees of O&W are our ambassadors to our customers. All employees are expected and required to behave in an ethical, courteous, friendly, prompt and helpful manner as regards the attention accorded both customers and fellow employees. Employees are also required to work in an efficient and productive manner, and to conduct themselves in full compliance with all local, state and federal laws. Fraudulent and unethical activity is prohibited at O&W - this policy is applicable to all employees. Fraudulent activity is defined as deceit, trickery, dishonest practice, or breach of confidence, intentionally perpetrated for profit or to gain some unfair or dishonest advantage. This includes, but is not limited, to falsification of information, intentional omission, false pretenses, and deliberate misuse of qualified resources or certification/qualification/authorization.

The relationship between O&W and its customers is a professional one and is strictly confidential, both ethically and legally. An employee, in due course of their employment, may acquire certain facts, both technical and financial, about our customers and/or O&W. This information includes, but is not limited to: O&W, customer and prime specifications, operation sheets, travelers, intellectual property, techniques, software, electronic records, price lists, quotations, customer lists, etc. Much of this information is ITAR protected; however, all such information is considered strictly proprietary and confidential. Under no circumstance shall technical or financial information of any kind belonging to O&W or a customer/Prime of O&W, be disclosed or disseminated to any outside party.

Any transfer of confidential information or company property without prior authorization, regardless of whether the employee receives any personal gain from such action, constitutes unacceptable conduct.

Any employee who engages in unprofessional, unacceptable or illegal conduct (see Personnel Policy Manual for additional detail), fraudulent activity or unethical activity will be subject to disciplinary action up to and including termination.

Discovery of fraudulent activity at the individual or company level regarding hardware still in-house will be immediately reported to the President, who will take appropriate action as outlined below, including consultation with the QC Department. Discovery of fraudulent activity regarding hardware already shipped will be immediately reported to the customer and applicable external bodies in question.

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Discovery of fraudulent activity affecting purchased goods or services (e.g., counterfeit or misrepresented) will immediately be reported to the upper management of the supplier, and if applicable, the cognizant external bodies .

- 14.2 The QC department, via formal, annual self-audits, ongoing observational audits and spot-check audits, shall utilize the audit process as necessary to discover, investigate and disclose fraudulent activity to customers and external bodies.

These audits shall include verification of proper use of O&W's Acceptance Authority Media (AAM) (e.g., digital signatures on certifications), including detection of potential AAM errors, misrepresentation (e.g., uncertified personnel) and training deficiencies (proper use of AAM).