



QA Clause Applied	Quality Clause Requirement Description
NFTQC-01	<p>Documented Quality Assurance Program and Inspection System The Subcontractor shall provide and maintain a documented quality assurance and inspection system acceptable to the NFT Contract Administrator covering the items and services to be furnished under this subcontract. The program shall identify the activities and items to which it applies. The establishment of the program shall include consideration of the technical aspects of the activities affecting quality/safety. The program shall provide control over activities affecting quality/safety to an extent consistent with their level of importance. The program shall be established at the earliest time consistent with the schedule for accomplishing the activities. The program shall provide for the planning and accomplishment of activities affecting quality/safety under suitably controlled conditions. Controlled conditions include the use of appropriate equipment, suitable environmental conditions, and assurance that prerequisites for a given activity have been addressed. The program shall provide for any special controls, processes, test equipment, tools, and skills to attain the required quality/safety level and for verification of quality requirements. Subcontractor shall tender to NFT for acceptance only items and services that have been produced and inspected in accordance with this system. Records of QA inspection by Subcontractor shall be kept complete and available to NFT during the performance of this subcontract and for such longer periods as specified elsewhere herein. NFT may perform reviews and evaluations as reasonably necessary to ascertain compliance with this clause. The right of review, whether exercised or not, does not relieve Subcontractor of the obligations under the subcontract.</p>
NFTQC-02	<p>Manufacturer's Certificate of Conformance The Subcontractor shall provide to NFT, with or prior to each shipment, a "Certificate of Conformance" that is traceable to the shipment stating that the materials conform in all respects with the subcontract requirements. The manufacturer's authorized representative as defined by the manufacturer's quality assurance program documentation shall sign this certificate.</p>
NFTQC-03	<p>Certified Material Test Reports (CMTR) The Subcontractor shall provide to the designated NFT technical representative, with or prior to the first shipment, a Certified Material Test Report (CMTR) for the material(s) supplied. The CMTR shall indicate actual chemical and physical properties and the test(s) performed to the applicable nationally recognized standards. The CMTR shall be signed by the manufacturer's authorized representative as defined by the manufacturer's quality assurance program definition, and the CMTR shall be traceable to the shipment supplied through heat number, batch number, manufacturer's lot numbers etc.</p>
NFTQC-04	<p>Right to Access Contractor shall have right to access seller's facilities and records for inspection and/or audit required.</p>
NFTQC-05	<p>Nonconformance Reporting (NCR) The Subcontractor shall notify the NFT Contract Administrator of each nonconformance against contractually agreed upon engineering, inspection, or test requirements within three (3) working days of occurrence. Notice shall consist of a written description of the nonconformance, an assessment of the cause, and the proposed corrective action.</p>
NFTQC-06	<p>Inspection, Examination, and Test Reports The Subcontractor shall provide to the NFT technical representative designated by the Contract Administrator, with or prior to each shipment and traceable to the shipment, (1) reports of inspections, examinations, and tests, as applicable or required, signed by authorized personnel of manufacturer, and (2) reports of any deviations from the subcontract technical requirements, including quality assurance and inspection provisions, and copies of NFT's written approval for such deviations.</p>
NFTQC-07	<p>Shelf Life Certifications/Storage Requirements The Subcontractor shall provide to the designated NFT technical representative, with or prior to the first shipment a shelf life certification for applicable items, if any that have a limited shelf life. The certification shall list date of manufacture/cure/ assembly; expiration date of shelf life; and inspection/test date for materials/supplies with an assigned shelf life that may be extended after the completion of inspection and/or restorative action.</p>

<p>NFTQC-08</p>	<p>Suspect/Counterfeit Items</p> <ol style="list-style-type: none"> 1. The Subcontractor shall establish and maintain effective controls to prevent the introduction of suspect or counterfeit items (S/CI) to NFT. A suspect Item is one in which there is an indication by visual inspection, testing, or other information that it may not conform to established Government or industry-accepted specifications or national consensus standards. A counterfeit item is a suspect item that is a copy or substitute, without legal right or authority to do so, or one whose material, performance, or characteristics are knowingly misrepresented by the vendor, supplier, distributor, or manufacturer. <ol style="list-style-type: none"> a. Types of material, parts, and components known to have been misrepresented include (but are not limited to) fasteners, such as bolts, nuts, and washers; cranes and hoists, as well as other hoisting, rigging, or lifting equipment; valves; pipe and fittings; flanges; electrical equipment and devices; plates, bars, shapes, channel members, and other structural items; and welding rods and electrodes. b. An item that does not conform to established requirements is not normally considered an S/CI if the nonconformity results from one or more of the following conditions: <ol style="list-style-type: none"> i. Defects resulting from inadequate design or production quality control; ii. Damage during shipping, handling, or storage; iii. Improper installation; iv. Deterioration during service; v. Degradation during removal; vi. Failure resulting from aging or misapplication; or vii. Other similar causes, which do not involve any misrepresentation about nature, quality, form, or function. 2. Notwithstanding any other provisions of this subcontract, the Subcontractor warrants that all items (including their subassemblies, components, and parts) tendered to NFT shall be genuine (i.e., not counterfeit), new and unused, and conform to the requirements of the subcontract, unless otherwise approved in writing by the Contract Administrator prior to delivery. Subcontractor further warrants that all components, parts, materials, and supplies incorporated into NFT equipment by the Subcontractor during performance of work at NFT shall be genuine, new and unused, and original-equipment-manufacturer items, unless otherwise approved by the Contract Administrator in writing as suitable for the intended purpose prior to use. The Subcontractor's warranty also extends to labels and/or trademarks or logos affixed, or designed to be affixed; to items supplied or delivered to NFT; and to certifications, affirmations, information, or documentation related to the authenticity and quality of items supplied or delivered to NFT under this subcontract. 3. Other than claims covered by an applicable "Nuclear Hazards Indemnity Agreement" clause, the Subcontractor shall indemnify NFT, its agents, and third parties for any financial loss, injury, or property damage resulting directly or indirectly from S/CI; items that have been provided under false pretenses; and items that the subcontractor knows, or should know to be defective, materially altered, damaged, deteriorated, degraded, and have nonetheless been tendered as genuine, original, new and unused, or suitable for the intended purpose or use. 4. Because falsification of information or documentation may constitute criminal conduct, NFT may temporarily segregate items, and related paperwork, that are suspected to be S/CI, pending a determination by National Nuclear Security Administration or Department of Energy officials (NNSA/DOE) as to whether the segregated items should be impounded as evidence. <ol style="list-style-type: none"> a. In the event NNSA/DOE directs NFT to impound the segregated items, no liability shall be asserted or enforceable against NFT, NNSA, or DOE because of the impoundment, all such liability being expressly waived by the Subcontractor or any person claiming any right or interest under this subcontract in the impounded items. b. NFT shall incur no liability for failure to return impounded items to the Subcontractor and does not assume any liability for loss or damage to the items impounded or temporarily segregated pursuant to this clause regardless of the circumstances under which said loss or damage may have occurred and whether the impounded or temporarily segregated items are in NFT's possession or under its control. 5. Nothing in this clause shall limit NFT's right to reject S/CI, and related paperwork, as nonconforming, to deny payment for such items, to return such items to the Subcontractor once NNSA/DOE has released the items, or to assert other remedies provided under this subcontract or by law. 6. Unless otherwise authorized by the Contract Administrator in writing, the Subcontractor shall cause this clause, including this paragraph, to be inserted in all lower-tier subcontracts entered into under this subcontract.
------------------------	---

<p>NFTQC-09</p>	<p>Calibration Services When using testing or calibration laboratories that have been accredited by a national or internationally recognized laboratory based on recognition through International Laboratory Accreditation Cooperation (ILAC) or Mutual Recognition Arrangement (MRA). The following is required:</p> <ol style="list-style-type: none"> 1. The accreditation is to ANSI/ISO/IEC 17025. 2. The recognition is through the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA). 3. The scope of accreditation includes the needed testing parameters, ranges, and uncertainties. 4. Traceable standards certificates must be available upon request. 5. Calibration reports shall include the following: <ul style="list-style-type: none"> • Show as received condition of the tool/item prior to adjustment. • Identification of the laboratory equipment/standards used. • Traceability of the calibration to national or internationally recognized laboratory. • Environmental conditions during the calibration actions.
<p>NFTQC-10</p>	<p>Calibration Services (OEM) When using the original equipment manufacturer for testing or calibration services, the calibration program must meet the requirements of a nationally recognized governing standard such as: ISO/IEC 17025, ANSI/NCSL Z540-1, ISO 10012 or have been accredited by a national or internationally recognized laboratory. Traceable standards certificates must be available upon request. Calibration reports shall include the following:</p> <ul style="list-style-type: none"> • Show as received condition of the tool/item prior to adjustment. • Identification of the laboratory equipment/standards used. • Traceability of the calibration to national or internationally recognized laboratory. • Environmental conditions during the calibration actions. • Name of OEM must appear on calibration report.
<p>NFTQC-11</p>	<p>Calibration Services (Other) When using calibration services that are not an OEM or accredited, the calibration service must have a quality program that has been accepted by NFT and meets the guidelines of a nationally recognized governing standard such as: ISO/IEC 17025, ANSI/NCSL Z540-1, ISO 10012. Traceable standards certificates must be available upon request. Calibration reports shall include the following:</p> <ul style="list-style-type: none"> • Show as received condition of the tool/item prior to adjustment. • Identification of the laboratory equipment/standards used. • Traceability of the calibration to national or internationally recognized laboratory. • Environmental conditions during the calibration actions.
<p>NFTQC-12</p>	<p>Testing Services When using testing laboratories that have been accredited by a national or internationally recognized laboratory, the following are required:</p> <ol style="list-style-type: none"> 1. The accreditation is to ANSI/ISO/IEC 17025. 2. Recognition is through the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA). 3. The scope of accreditation includes the needed testing methods. 4. Traceable standards certificates must be available upon request. 5. Test reports shall include the following: <ul style="list-style-type: none"> • Identification of the laboratory equipment/standards used. • Identification of test method used. 6. Supplier must maintain traceability to a recognized national or international laboratory.
<p>NFTQC-13</p>	<p>Product Data Reproducible copies of applicable specifications, drawings, and/or descriptive catalog sheets shall be submitted as required by the Purchase Order. Product data shall include descriptive material, such as catalog data, diagrams, color charts, and other data published by the manufacturer, as well as evidence of compliance with safety and performance standards. To demonstrate conformance to the specified requirements, catalog numbers alone will not be acceptable. The data shall include the name and address of the nearest service and maintenance organization that regularly stocks repair parts. Product data submittals shall reference the applicable specification or drawing, and be complete for each item of work</p>



NFTQC-14	Serialization and Marking The manufacturer shall serialize parts, components, subassemblies, and assemblies as required by drawings, specifications, and the subcontract. The manufacturer's serial number control system shall ensure that the same serial number is not used more than once.
NFTQC-15	Handling, Storage, Shipping, and Packaging The Subcontractor shall control the handling, storage, cleaning, packaging, shipping, and preservation of items to prevent damage or loss and to minimize deterioration. Handling, storage, and shipping of items shall be conducted in accordance with established work and inspection instructions, drawings, specifications, shipment instructions, or other pertinent documents or procedures specified for use in conducting the activity. Items shall be packaged according to size, manufacturer, dimensional and manufacturer lot or heat number. Packages of mixed lots, sizes, or products are not acceptable and will be returned to Subcontractor at Subcontractor's expense. Packages shall be closed and labeled in a manner that identifies the item, dimensions, (where applicable), quality, Subcontractors name, manufacturer's name, CMTR lot or heat number, and the NFT's P.O. number.
NFTQC-16	Corrective Action Reports (CAR) The Subcontractor shall provide written response indicating corrective action taken within five (5) working days of receipt of request for corrective action from NFT. NFT shall request corrective action if it is determined that the Subcontractor has not conformed to a subcontract requirement.
NFTQC-17	Commercial-Grade Dedication Survey The Supplier is required to have procedures and processes in place to control the critical characteristics identified in the purchase order. The Contractor will evaluate the process controls before award of the purchase order. A Certificate of Conformance must be provided with the product(s).
NFTQC-18	Traceability-Item The Subcontractor shall prepare, maintain, and implement a written procedure addressing Subcontractor's capability of tracing items to the raw material from which the item was fabricated. This procedure shall include the identification of all documents and forms used for traceability and a description of how they relate to one another. Such documentation and records shall be available for review by the NFT Contract Administrator upon request.
NFTQC-19	Qualification and Certification of Personnel and Staff The Subcontractor's personnel and staff shall have the qualifications and certifications as defined by the NFT Contract Administrator to perform the processes associated with performance of the subcontract. Qualification and certification records shall be available for review by NFT upon request.
NFTQC-20	Design/Change Control The Subcontractor shall provide a design that is defined, controlled, and verified. Applicable design inputs shall be appropriately specified on a timely basis and correctly translated into design documents. Design interfaces shall be identified and controlled. Persons other than those who designed the item shall verify design adequacy and accuracy. Design changes shall be governed by controlled measures commensurate with those applied to the original design.
NFTQC-21	Inspection and Test Procedures The Subcontractor shall prepare and maintain written, detailed inspection procedures detailing the inspection and testing that will be performed to verify that the items to be supplied conform to the requirements of the subcontract. Before the start of inspection, Subcontractor shall submit the procedure to the NFT quality assurance and technical representative designated by the Contract Administrator for written approval.

<p>NFTQC-22</p>	<p>Special Process Procedures The Subcontractor shall provide to the NFT quality assurance and technical representative designated by the Contract Administrator, Subcontractor's special process procedures as required by NFT' technical specification. Special processes (e.g., welding, brazing, bonding, plating, chemical machining, heat treating, radiographic inspection, ultrasonic testing, pressure leak testing, or waste processing, etc.) shall be performed In accordance with detailed written procedures. These procedures shall specifically describe the exact manner In which the processes are to be performed The Subcontractor shall maintain a system of process sheets, shop travelers, or equivalent means to define the sequence of manufacturing, Inspection, Installation and test activities to be performed, Flow sheets, or equivalent, shall provide for sign-off by designated inspection personnel at specified inspection and test points, including, as required, re-inspection and re-test points, to assure completion as well as proper sequencing of required operations. NFT reserves the right to designate selected manufacturing, inspection, and/or test operations as "witness hold points" The Subcontractor shall provide NFT with five (5) working days' notice In advance of reaching such "witness hold points" during the manufacturing and test cycle of each Item. The Subcontractor shall provide for the qualification of personnel, prior to their assignment, to ensure competence in the use of the special process procedures or specifications. Records of such qualification(s) shall be available to NFT' representative upon request. Only those personnel that have been qualified to perform a specific special process shall be used to perform that process.</p>
<p>NFTQC-23</p>	<p>Certification of Calibration The Subcontractor shall provide to the designated NFT technical representative, with or prior to the first shipment or as designated by the Contract Administrator, a copy of the Certificate of Calibration for all measuring and test equipment utilized under this subcontract. Certificates shall be traceable to a national or internationally recognized laboratory.</p>
<p>NFTQC-24</p>	<p>Welding/Certification Requirements The supplier shall maintain and submit weld history data for each weld, in accordance with this purchase order. Weld history records shall include the following:</p> <ul style="list-style-type: none"> • Welder Qualification • WPS • WPQR • Weld map • Weld date • Weld ID • Weld procedure • Acceptance criteria Fit-up inspection • Welder ID • Filler metal heat number • Base metal heat number • NDE method and results
<p>NFTQC-25</p>	<p>Radiographic Examination Radiographic examinations performed in accordance with the purchase order shall be performed using industrial grade radiographic film. A system of identification shall provide traceability between each radiograph and the specific item and to a positive location on the item to which the radiograph pertains. Radiographs of weld repairs shall be sequentially identifiable for each repair. Indications revealed by radiography shall be recorded on a radiographic interpretation report. Radiographic film, including repair exposures and interpretation reports, shall be submitted as required by this purchase order. Radiographic film submittals shall become the property of the contractor.</p>
<p>NFTQC-26</p>	<p>Manuals/Instructions The Subcontractor shall submit manuals/Instructions that Identify storage guidelines, installation procedures, installation testing procedures, special instructions, operating conditions, preventive and collective maintenance tasks, frequency of tasks, tools and equipment required, operating procedures, and safety precautions, as required for proper storage, installation, maintenance, and operation of the item(s) supplied. The manual/instruction shall recommend the maintenance level of each maintenance task (e.g., operator, field service, Subcontractor's repair facility). The manual/instructions shall be written in clear, concise language readily understandable by a technician or craftsman, and it shall conform to the Industry standards that prevail for the preparation of such documents.</p>
<p>NFTQC-27</p>	<p>Manufacturer's Certificate of Proof Test The Subcontractor shall provide to the designated NFT technical representative, with or prior to each shipment, a "Certificate of Proof Test" that is traceable to the item being shipped. A proof test Is a nondestructive test performed by the manufacturer to verify construction and workmanship of slings or rigging accessories. The manufacturer's authorized representative as defined by the manufacturer's quality assurance program shall sign the certificate.</p>

<p>NFTQC-28</p>	<p>Traceability-Analytical Results/Calibration The Subcontractor shall maintain records that provide traceability of analytical results and instrument calibrations to a national or internationally recognized laboratory for a period of one year from the date of completion of this subcontract. These records shall be maintained for any Instrument used In the production or acceptance of products. Such records shall be available for review by the NFT technical representative designated by the Contract Administrator upon request. Subcontractor shall furnish copies of its latest quality assurance Inspection and test policies and procedures to the NFT technical representative designated by the Contract Administrator. NFT reserves the right to review such documentation to determine the adequacy of the Subcontractor's quality assurance program. Any review and comments regarding the Subcontractor's quality assurance program documentation shall in no way relieve Subcontractor of responsibility for full compliance with subcontract requirements.</p>
<p>NFTQC-29</p>	<p>American Chemical Society (ACS) Certifications The Subcontractor shall provide to the designated NFT employee, with or prior to the first shipment, a certification that ACS specifications are met.</p>
<p>NFTQC-30</p>	<p>UN Test Summary Report The Subcontractor shall provide to the designated NFT technical representative, with or prior to the first shipment, a UN Test Summary Report for the material(s) supplied. The UN Test Summary report, at a minimum must contain the following Information:</p> <ol style="list-style-type: none"> 1. Name and address of test facility: 2. Name and address of applicant (where appropriate): 3. A unique test report identification: 4. Date of the test report; Manufacturer of the packaging: 5. Description of the packaging design type (e.g. dimensions, materials, closures, thickness, etc.), including methods of manufacture (e.g. blow molding) and which may include drawing(s) and/or photograph(s): 6. Maximum capacity: Characteristics of test contents, e g viscosity and relative density for liquids and particle size for solids: 7. Test descriptions and results: and Signed with the name and title of signatory.
<p>NFTQC-31</p>	<p>First Article Inspection/Review In addition to other reviews or inspections by NFT of supplies and services provided by the Subcontractor, NFT may require the Subcontractor to demonstrate to NFT before the start of fabrication of any production lot of Items listed on this subcontract, that the first article conforms to the requirements of the subcontract and obtain NFT's written approval of the article. The manufacturer shall identify this article as the "first article."</p>
<p>NFTQC-32</p>	<p>Source Inspection/Prior to Shipment In addition to other reviews or Inspections by NFT of supplies and services provided by the Subcontractor, NFT may inspect the supplies covered by this subcontract at its source In conjunction with Subcontractor's conduct of final inspection and test. To facilitate this potential source inspection, the Subcontractor shall notify the NFT technical representative designated by the Contract Administrator of its readiness at least five (5) working days before the date on which the final inspection and test is anticipated to begin.</p>
<p>NFTQC-33</p>	<p>Preliminary, Conditional Acceptance NFT reserves the right to perform preliminary, conditional acceptance of supplies and data at manufacturer's facility upon manufacturer's satisfactory completion of the quality assurance, test, and Inspection provisions of the subcontract. To facilitate the preliminary or conditional acceptance, manufacturer shall notify the designated NFT technical representative of its readiness at least five working days before the date on which shipment is anticipated.</p>
<p>NFTQC-34</p>	<p>Subcontractor's Facility (Visit) NFT reserves the right of Its representatives to visit Subcontractor's facilities, on a non-resident basis, for surveillance purposes, to assure/verify Subcontractor's conformance to the technical requirements of this subcontract including quality assurance and test and inspection requirements. Such personnel shall be allowed full access to witness all operations/tests involved in the performance of this subcontract. Reasonable advance notice (minimum 24 hours), in writing, shall be provided to Subcontractor prior to any such visits.</p>

<p>NFTQC-35</p>	<p>Subcontractor's Facility (Resident) NFT, at its discretion, may assign and station resident representatives at Subcontractor's facility to provide program coordination. These representatives will assist in expediting actions between NFT and Subcontractor, maintain program surveillance, and evaluate program progress. The resident representatives shall have access to all areas and all information directly related to the scope of their responsibilities hereunder. Subcontractor agrees to provide appropriate office space, office supplies, secretarial services, and communication facilities for such representatives at no additional cost to NFT.</p>
<p>NFTQC-36</p>	<p>Design Review Prior To Production Before release of the design documents to Subcontractor's manufacturing operation for production, Subcontractor shall provide for a design review by NFT representatives designated by the Contract Administrator and obtain written approval from the Contract Administrator to begin production. To facilitate the design review, Subcontractor shall notify the NFT technical representative designated by the Contract Administrator of its readiness for a design review conference at least five (5) working days before the date on which the conference is scheduled. The notification shall include the proposed conference agenda and one reproducible copy of each document that constitutes the design or helps to demonstrate that the design meets NFT's requirements.</p>
<p>NFTQC-37</p>	<p>Engineering Drawings The Subcontractor shall provide to the designated NFT technical representative, with or prior to the first shipment and traceable to the shipment of any Item, engineering drawings detailing the design of the Items required by the subcontract.</p>
<p>NFTQC-38</p>	<p>10 CFR 21 Reporting Items and/or services supplied under this purchase order are classified as basic components to a facility licensed by the Nuclear Regulatory Commission (NRC) and, as such, are subject to the Code of Federal Regulations, Title 10, Part 21. Supplier shall be subject to audit of the following requirements related to 10 CFR Part 21:</p> <ul style="list-style-type: none"> • Supplier shall post required documents. • The supplier shall implement procedures for evaluating as appropriate, deviations from the technical requirements of this purchase order. Such evaluations may be limited to the critical characteristics of the item and/or service, if the critical characteristics are identified by the purchaser. • The supplier shall implement procedures for notifying the purchaser and/or the NRC of deviations from the technical requirements of the purchase order. Such notifications may be limited to the critical characteristics of the item and/or service, if the critical characteristics are identified by the purchaser. • The supplier shall implement procedures for maintaining records. • The supplier shall maintain records of the purchaser's basic components for 10 years after delivery of the item or service to the purchaser. • The supplier shall flow-down the requirements of 10 CFR Part 21 to lower-tier suppliers of materials, items, and/or services that comprise all or a part of the items or services subject to this clause. • The supplier shall assure that lower-tier suppliers implement the requirements of 10 CFR Part 21 and shall maintain documented evidence of that assurance. • The Supplier shall establish right-of-access to all lower tier suppliers and notify lower-tier suppliers of the Purchaser or Supplier's right to audit, assess, inspect, test, or witness all activities at all reasonable times.
<p>NFTQC-39</p>	<p>Nuclear or Radiological Safety Related Items or Services The item(s) or service(s) identified as deliverables in this subcontract are related to nuclear or radiological safety that may, directly or indirectly, affect the safety of nuclear or radiological facilities or activities. These item(s) or service(s) are regulated by the Department of Energy under the provisions of several Federal Statutes and Regulations including, without limitation, 42 U.S. C. 221 0 and 10 CFR 820 to 835 (collectively, the Price-Anderson Act, as amended). The Subcontractor shall comply with this subcontract and with the statutes and regulations applicable to the work being performed. The Subcontractor shall include this provision in each and every lower tier subcontract so that these terms and conditions will be binding upon each lower-tier subcontractor or vendor.</p>