

NCSX

Statement of Work For the Vacuum Vessel System (WBS 12) Coolant Tubes

NCSX-SOW-123-01-00

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Controlled Document

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1 SCOPE

This SOW defines the production of vacuum vessel coolant tubes (Tubes) by the Seller. The Seller shall deliver the Tubes and constituent components to the Princeton Plasma Physics Laboratory (PPPL). The Seller will not be responsible for providing mounting hardware for the Tubes. All of the labor for the final installation, mounting, and assembly of the Tubes will be supplied by the PPPL. The Tubes are defined in a product specification (NCSX-CSPEC-123-01). The due dates for all deliverables are defined in the Subcontract.

2 APPLICABLE DOCUMENTS

The applicable version of the product specification (NCSX-CSPEC-123-01) can be found at:

ftp://ftp.pppl.gov/pub/ncsx/manuf/vv_coolant_tubes/

3 REQUIREMENTS

3.1 General

3.1.1 Plans and Procedures

3.1.1.1 Tube Segmentation Plan

If the Seller elects to segment the Tubes, the Seller shall provide a Tube segmentation plan for PPPL approval per Section 3.2.3 – Tube Segmentation of the product specification.

3.1.1.2 Cleaning Procedure

The Seller shall provide a Tube cleaning procedure for PPPL approval per Section 3.3.2 – Cleaning in the product specification.

3.1.1.3 Procedure for Verification of Free Flow

The Seller shall provide a procedure to verify free flow for PPPL approval per Section 4.2.3 – Verification of Free Flow of the product specification.

3.1.2 Hardware

The supplier shall manufacture, clean, inspect, and deliver to PPPL Tubes that conform to the applicable version of the product specification (NCSX-CSPEC-123-01).

3.1.3 Process Documentation

The Seller shall provide all process documentation per Section 4.4.

3.2 Quality Assurance Requirements

3.2.1 Inspection/ Surveillance/Audit by PPPL

Authorized representatives of PPPL and the U. S. Government shall have the right at all reasonable times to visit the Seller's premises and those of Seller's suppliers during the performance of the Subcontract for the purposes of inspection, surveillance, audit and/or obtaining any required information as may be necessary to assure that items or services are being furnished in accordance with specified requirements. Such visits shall be coordinated with the Seller's personnel to minimize interference with the normal operations of said premises. The Seller shall make

available records and documentation necessary for this function and shall provide all reasonable facilities and assistance for the safety and convenience of PPPL and/or U. S. Government representatives in the performance of their duties. PPPL and the U. S. Government recognize the Seller's right to withhold information concerning proprietary processes. The Seller agrees to insert the paragraph above in each lower-tier procurement issued hereunder.

3.2.2 Seller's Responsibility for Conformance

Neither PPPL review and/or approval of Seller's documents nor PPPL inspection of Seller's items or services shall relieve the Seller of responsibility for full compliance with requirements of the Subcontract. The Seller is responsible for assuring that all requirements and restrictions are imposed on any sub-tier suppliers.

3.2.3 Nonconforming Items

Nonconforming items shall be positively identified, and, where possible, segregated to prevent use. PPPL must be notified of nonconforming items within five (5) business days. The Seller shall document each nonconformance, identifying the extent and location of the nonconformance and proposing a disposition. The written concurrence of PPPL is required prior to implementing the disposition.

3.2.4 Seller's Quality Assurance Program

The Seller shall maintain an effective Quality Assurance Program to assure that the Seller's work meets the required quality and is performed in accordance with contractual requirements. Seller's quality assurance function shall be actively involved in the planning, processing oversight, problem resolution, and determination of acceptability of all work under this SOW. The function shall be organized to have sufficient authority and independence to identify quality problems, verify conformance of supplied items or services to specified requirements and obtain satisfactory resolution of conflicts involving quality.

3.2.5 Inspections and Tests

Inspections and tests shall be performed in accordance with written procedures referencing criteria for acceptance or rejection. Except where specifically stated otherwise, actual data and accept/reject status for each inspection and test shall be documented. Reports shall clearly identify the item inspected, the locations or areas covered by the report, the performing individual, the date performed, equipment used (with calibration status), and the signature of the authorized individual.

3.2.6 Equipment/Material Identification and Status

Material identification shall be maintained throughout the program and be traceable to records. Status of acceptability shall be readily discernible through the Seller's use of tags, stamps, serial numbers or other positive means.

3.2.7 Calibration of Test and Measuring Equipment

Inspections and tests shall be performed using properly calibrated measuring and test equipment. Seller shall have in its possession the necessary equipment to perform the required inspections and tests. Calibration standards shall be traceable to the National Institute for Standards and Technology (NIST) or equivalent acceptable to PPPL and shall not be used for shop inspections, but instead be protected against damage or degradation.

3.2.8 Control of Special Processes

Seller shall use trained and qualified personnel and qualified written procedures in accordance with specified requirements for the performance of certain special processes, including but not limited to, welding, dimensional inspection, heat treatment, nondestructive examination, etc.

3.2.9 PPPL Receiving and Inspection

PPPL will perform Receiving Inspection on items supplied by Seller.

4 DELIVERABLES

4.1 Plans and Procedures

Prior to release for fabrication, the Seller shall provide the following plans and procedures for PPPL approval.

4.1.1 Tube Segmentation Plan

If the Seller elects to segment the Tubes, the Seller shall provide a Tube segmentation plan (indicating the number and location of breaks in each segmented Tube) per Section 3.2.3 – Tube Segmentation of the product specification for PPPL approval.

4.1.2 Cleaning Procedure

The Seller shall provide a Tube cleaning procedure per Section 3.3.2 – Cleaning in the product specification for PPPL approval.

4.1.3 Procedure for Verification of Free Flow

The Seller shall provide a procedure outlining the steps to verify free flow per Section 4.2.3 – Verification of Free Flow of the product specification for PPPL approval.

4.2 Tubes

The Seller shall provide Tubes which conform to the requirements in the product specification.

4.3 Shipping Release Form

Prior to shipment of components, the Seller must have submitted to PPPL a completed and signed “Product Quality Certification and Shipping Release” form (Attachment 1), along with a copy of the process history (Section 4.4), and received from PPPL written acceptance to ship.

4.4 Process History

Seller shall provide to PPPL one (1) "paper" copy or one (1) "electronic" copy of the Process History, which includes a compilation of documents, detailing the objective evidence of the acceptability of the work performed. The Process History shall be complete and available at the time the Seller requests Release for Shipment. The Process History shall include as a minimum, but not be limited to:

- Material certifications
- Completed nonconformance reports
- Validated inspection and test reports indicating compliance of each Tube to the product specification and drawings
- Signed Shipping Release

ATTACHMENT 1 – SHIPPING RELEASE FORM

PRINCETON UNIVERSITY

PLASMA PHYSICS LABORATORY—PPPL

PRODUCT QUALITY CERTIFICATION AND SHIPPING RELEASE					
PROJECT	ITEM DESCRIPTION			SHIPMENT NUMBER	
PPPL Subcontract / Order No.	REV.	ITEM NO.	SELLER REFERENCE NO.	REV.	QUANTITY SHIPPED
<p>SELLER'S CERTIFICATION</p> <p>This is to certify that the products and services identified herein have been produced under a controlled quality assurance program and are in conformance with the procurement requirements including applicable codes, standards and specifications as identified in the above-referenced documents unless noted below. Any supporting documentation will be retained in accordance with the procurement requirements.</p> <p>SIGNED: _____ DATE: _____</p> <p>TITLE: _____ COMPANY: _____</p>					
<p>PPPL (AUTHORIZED REPRESENTATIVE) SHIPPING RELEASE</p> <p>This is to certify that evidence supporting the above Seller's Certification statement has been audited and no product/service nonconformances from procurement requirements have been found unless noted below. This product/service is hereby released for shipment.</p> <p>This section serves as the Quality Assurance release for the above described product for shipment. It does not constitute an acceptance thereof and does not relieve the Vendor, Manufacturer or Seller of any and all responsibility or obligation imposed by the purchase contract. It does not waive any rights the Purchaser may have under the purchase contract, including the Purchaser's right to reject the above described material upon discovery of any deviations from requirements of the purchase contract, drawings and specifications.</p>					
<p>NONCONFORMANCES FROM PROCUREMENT QUALITY REQUIREMENTS:</p>					
<p>REMARKS/PRODUCT SERIAL NUMBERS:</p>					
<p>BY PPPL QA REPRESENTATIVE (OR DESIGNEE)</p>				<p>DATE</p>	