

Statement of Work – SNS Magnetic Shielding
CRM9000000-1014



Thomas Jefferson National Accelerator Facility
12000 Jefferson Avenue
Newport News, VA 23606

SPECIFICATION NO:
CRM9000000-1014

TITLE: Statement of Work – SNS Magnetic Shielding	
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1. SCOPE

1.1. Overview

This Statement of Work (SOW) defines the requirements for magnetic shielding assemblies to be used in the Spallation Neutron Source (SNS) medium and high Beta cryomodules. The subcontractor shall provide all labor, materials, equipment, tools and facilities necessary to meet the specifications and accomplish the requirements of this subcontract.

1.2. Deliverables to JLAB

1.2.1. Subcontractor shall provide prior to contract award:

- 1.2.1.1. A general plan or outline of the manufacturing and annealing process used to produce the magnetic shielding assemblies
- 1.2.1.2. A production schedule
- 1.2.1.3. All documentation according to Section 4.0 of this SOW

1.2.2. Magnetic shield assemblies in accordance with JLab drawings:

- 1.2.2.1. CRM9005020-0001 Rev -
- 1.2.2.2. CRM9005020-0002 Rev -
- 1.2.2.3. CRM9005020-0003 Rev -
- 1.2.2.4. CRM9005020-0004 Rev -

1.3. JLAB/Government Furnished Equipment/Material

1.3.1. None.

2. APPLICABLE DOCUMENTS

2.1. Dimensional Control Drawing Baseline Design

The following drawings represent an acceptable configuration for the medium and high Beta magnetic shield assemblies respectively. Overall dimensions and noted requirements are mandatory.

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2.2. Design Specifications

The following specification is to be used in the manufacturing of the magnetic shielding assemblies.

2.2.1. 1141S0035 Rev -- General Cleaning and Handling Specification

2.2.2. 22633S001 Rev A - Welding Specification for U.H.V. Components

3. **Requirements**

3.1. General

The Subcontractor is required to produce and deliver magnetic shielding assemblies and documentation as specified in this SOW. No substitutions or deviations may be made to magnetic shielding assemblies without the written consent of JLab. However, the Subcontractor is invited to suggest to JLab improvements to the design that may increase manufacturing efficiency or increase the performance of the magnetic shielding.

3.2. Conflicts

Any and all conflicts among the drawings or specifications are to be brought to the attention of JLab for resolution prior to the continuation of work. Under no circumstances is the Subcontractor to take any initiative without this resolution.

3.3. Subcontractor Inspection and Testing

Visual inspection shall show that the magnetic shield assemblies are structurally sound and free of fluids, scale, cracks, splits, inclusion porosity or any defect that could cause undesired magnetic shielding or structural effects.

3.4. JLAB Inspection and Acceptance

JLab will visually inspect all magnetic shielding assemblies and parts delivered from the Subcontractor to ensure magnetic shielding assemblies and parts conform to the requirements stated in Section 3.3. of this SOW.

3.5. Marking

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- 4.1.1. The Subcontractor shall prepare a quality assurance program for JLab's approval with their proposal. The Subcontractor shall conduct quality control procedures and tests, which will guarantee that the product to be furnished by the Subcontractor is in full conformance with these specifications.
- 4.1.2. The consistent quality of the items defined by the specification is to be ensured by a continuing surveillance program that shall be carried on by the Subcontractor for the full term of the work associated with these specifications.
- 4.1.3. This program shall contain (when applicable) the mechanism for:
 - 4.1.3.1. Inspection of all materials received from the Subcontractor's suppliers and subcontractors and the recording of this information.
 - 4.1.3.2. Obtaining and recording of all CMTRs.
 - 4.1.3.3. The calibration and identification of standards and instrumentation used; the intervals between calibrations are also to be defined.
 - 4.1.3.4. Establishment of inspection points during the production process, which will measure critical parameters.
 - 4.1.3.5. The recording of all inspection data in such a manner so that the history of an item can be readily traced.
 - 4.1.3.6. The submittal to JLab of all data related to the above.
- 4.1.4. JLab shall have unannounced access to the Subcontractor's plant, during regular business hours, for the purpose of conducting Quality Assurance Audits.

5. PREPARATION FOR DELIVERY

5.1. JLab Inspection

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The Subcontractor shall ship the specified equipment properly packaged, to ensure that damage to assemblies and or parts are not incurred during shipment, in accordance with transportation industry standards.

5.3. Marking

All parts and assemblies shall be bagged and sealed to maintain cleanliness. Individually bagged parts and assemblies shall be marked with the appropriate drawing number on the out side of the bag. The Subcontractor shall provide records traceable to the Certifiable Material Test Reports (CMTR) to JLab with each delivery.

The outside of the shipping container shall be clearly and legibly marked as stated below:

SNS Medium (or High) Beta Magnetic Shielding
Quantity: X of Y
Attention: T. Hiatt