



Statement of Work aLIGO Laser Area Enclosure

The following documents are incorporated into and made a part this Statement of Work (SOW). Click on the following LIGO Document Control Center (DCC) links to access these documents or go on line to the LIGO Public DCC at <https://dcc.ligo.org/> to access the DCC#.

1.0 Terms:

<u>DCC #</u>	<u>Description</u>
C080185-v1	Laser Interferometer Gravitational Wave Observatory (LIGO) Commercial Items or Services Contract General Provisions California Institute of Technology “Institute”, LIGO Rev 11/12/08
F0810001-v4	Technical Direction Memorandum.

2.0 Quality Control:

The supplier shall:

- 1) Meet or exceed all specifications and requirements
- 2) Identify the corresponding sections/paragraphs in their existing QA/QC system or proposed QA/QC plan for each of the boxes checked in the table below.

<u>DCC #</u>	<u>Description</u>
Q0900001-v4	Advanced LIGO Supplier Quality Requirements, dated 2/10/10, describes following contractor/supplier QA/QC actions for this procurement:
<input type="checkbox"/> 3.1 Pre-Award Inspection	<input type="checkbox"/> 3.9 Discrepant Material Storage
<input checked="" type="checkbox"/> 3.2 Supplier In Process Quality Control	<input checked="" type="checkbox"/> 3.10 Quality Records
<input type="checkbox"/> 3.3 In Process Inspection	<input checked="" type="checkbox"/> 3.11 Drawing and Specification Change Control
<input type="checkbox"/> 3.4 Pre-Ship Inspection	<input type="checkbox"/> 3.12 Welding Certification
<input type="checkbox"/> 3.5 Receiving Inspection	<input checked="" type="checkbox"/> 3.13 End Item Data Package (including Certifications of Compliance)
<input type="checkbox"/> 3.6 Discrepant Material	<input checked="" type="checkbox"/> 4.1 Design Verification
<input checked="" type="checkbox"/> 3.7 Material Review Action	<input type="checkbox"/> 4.2 Raw Material Procurement
<input type="checkbox"/> 3.8 Material Review Actions at Contractor	<input type="checkbox"/> 4.3 Traceability of Materials
	<input type="checkbox"/> 4.4 Calibration Program
	<input type="checkbox"/> 4.5 Critical Interface
	<input checked="" type="checkbox"/> 4.6 Cleanliness
	<input type="checkbox"/> 4.7 Packaging
	<input type="checkbox"/> 4.8 Storage
	<input checked="" type="checkbox"/> 4.9 Transport
	<input type="checkbox"/> 4.10 Customs

3.0 End Item Data Package:

At the time of delivery of the parts, the Supplier shall also provide the following data, as a minimum:

- o Clean room performance assessment including air flow rates and particulate levels in both “Service Mode” and “Science mode.”
- o Results of measurements of acoustic attenuation in the Laser Room when operating in “Science Mode”
- o As-built design and fabrication drawings including electrical

4.0 Included Documents:

<u>DCC #</u>	<u>Description</u>
C1000392-v3	PSL Laser Area Enclosure Specifications, Requirements, and Design Considerations
D1000735-v2	Sketch of Laser Area Enclosure room layouts

5.0 Scope:

This SOW is for the design, fabrication, and performance testing of three Laser Area Enclosures consisting of Class 1000 clean room facilities for the aLIGO lasers.

6.0 Quantity Required:

2 ea.	LIGO Hanford Observatory, Richland, WA
1 ea.	LIGO Livingston Observatory, Livingston, LA
