



Statement of Work PS-140 aLIGO H2 PSL Laser Diode and Chiller Rooms

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 the 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 type="checkbox"/> 3.2 Supplier In Process Quality Control	<input type="checkbox"/> 3.10 Quality Records
<input checked="" 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 type="checkbox"/> 3.13 End Item Data Package (including Certifications of Compliance)
<input type="checkbox"/> 3.6 Discrepant Material	<input type="checkbox"/> 4.1 Design Verification
<input 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 Included Documents:

<u>DCC #</u>	<u>Description</u>
D1101098-v1 (two sheets)	H2 Laser Diode Room and Chiller Room Drawings

4.0 Scope:

This SOW is for the fabrication of the Laser Diode Room and the Chiller Room for the H2 interferometer at the LIGO Hanford Observatory. The structures are to be fabricated as shown in the “Required Drawings” in Section 3.0.

Constraints:

- 1) Welded, sheet vinyl flooring is in place and must be protected from damage during construction.
- 2) Laser protective eyewear, supplied by LIGO, may be required inside the LVEA.
- 3) Rooms to be constructed inside the Lasers and Vacuum Equipment Area (LVEA), a cleanroom facility. All cutting of components, framing members, gypsum wall board, etc., must take place outside the LVEA. No sanding of gypsum wall board, trowel finish on gypsum wall board joints. Brushing and rolling of paint only, no spray painting, inside the LVEA. Exceptions, along with particulate mitigation plans must be approved by LIGO in advance.

5.0 Construction time window:

Construction is to begin on July 25, 2011 and to complete by August 5, 2011.