LIGO

LASER INTERFEROMETER GRAVITATIONAL WAVE OBSERVATORY

SPECIFICATION

E0900429 -V1 Drawing No Vers.

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SPECIFICATION FOR RAW MATERIAL HANDLING

APPROVALS	DATE	REV	DCN NO.	BY	CHECK	DCC	DATE
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SPECIFICATION FOR RAW MATERIAL HANDLING

1.0 **Purpose**

The purpose of this procedure is to define the requirements for handling and storing LIGO raw material. The Seller shall incorporate these requirements in their procedures.

2.0 General

This procedure is applicable to all LIGO vacuum boundary and vacuum internal component raw materials.

Contamination of LIGO vacuum surface materials must be prevented during receiving, storage and fabrication in order for the vacuum system to achieve its design goals. Contamination is defined as any foreign material (carbon steel, oil, grease, etc.) which could come in contact with the 304/304L S.S. and aluminum.

3.0 Responsibilities

The receiving department is responsible for preventing contamination during receiving and storage of the raw material.

The manufacturing department is responsible for preventing contamination during the fabrication process.

4.0 **Procedure**

4.1 Receiving

4.1.1 All LIGO Vacuum Boundary Material (304/304L S.S.) shall be handled (i.e. lifted, rolled, etc.) without coming in contact with carbon steel or other contaminants.

4.2 **Storage**

4.2.1 Vacuum Boundary material shall be stored indoors and shall be protected from carbon steel, hydrocarbon and other types of contamination.

4.3 **Fabrication**

Raw materials shall be protected from contamination throughout the fabrication process. All welding and fitting shall be done in clean manufacturing space (Class 100,000 - 200,000) with outside air purge to minimize contamination.

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4.3.2	No solvent wiping, grinding or wire brushing shall be done to the vacuum surfaces.
4.3.3	Smoking is not allowed in any LIGO storage or manufacturing area.