

Title: SPECIFICATION FOR SITE PIPING CLEANING PROCEDURE

SPECIFICATION FOR
 SITE PIPING CLEANING PROCEDURE
 FOR
 LIGO VACUUM EQUIPMENT

Hanford, Washington
 and
 Livingston, Louisiana

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1.0 PURPOSE

This specification covers the minimum requirements for the on-site cleaning of piping for the LIGO vacuum system.

2.0 GENERAL

- 2.1 Vacuum piping is bought in a clean state (white pickled) and is prespooled at PSI. Therefore, full site cleaning should not normally be required.
- 2.2 Vacuum piping spools shall not be unsealed until the end is protected by a Class 100 cleanroom.
- 2.3 Utility piping shall be cleaned by a procedure submitted by the site installation contractor and approved by the buyer

3.0 RESPONSIBILITIES

- 3.1 Cleaning shall be performed by contractor personnel familiar with this procedure and the cleaning area systems and equipment.
- 3.2 This procedure shall be maintained and modified as required by the cognizant engineer.

4.0 PROCEDURE

- 4.1 Before installing a piping spool, the exterior shall be wiped with a clean, lint-free cloth.
- 4.2 Piping shall be installed in sections, with the open end protected by a Class 100 cleanroom.
- 4.3 After completion of installation of a run of piping, it shall be blown out with clean, dry nitrogen gas.

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4.4 If after testing the piping proves to require recleaning, it shall be removed off-site to be flushed with hot water and detergent(Oakite Impro-Clean 1300), flushed with city water for 5 minutes, and flushed with DI water for 5 minutes.

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