

Title: SPECIFICATION FOR BAKEOUT SYSTEM ACCEPTANCE TEST PROCEDURE

**ACCEPTANCE TEST PROCEDURE
FOR BAKEOUT SYSTEM BLANKETS AND CARTS
FOR LIGO VACUUM EQUIPMENT**

Hanford, Washington

and

Livingston, Louisiana

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REV LTR	BY-DATE	APPD. DATE	DESCRIPTION OF CHANGE	
PROCESS SYSTEMS INTERNATIONAL, INC.			SPECIFICATION	
INITIAL APPROVALS	PREPARED	DATE	Approved	DATE
	F. Barb	5-2-96	RES	5/2/96
			Number:	Rev.
			A V049-2-112	1
			LIGO-E970160-01-V	

1.0 PURPOSE

The purpose of this Acceptance Test Procedure (ATP) is to define the overall plan for acceptance testing of the bakeout system blankets and carts in order to demonstrate that they meet the requirements of the LIGO Vacuum Equipment Specification, LIGO-E940002-02-V, Revision 2, dated August 31, 1995.

2.0 GENERAL

- 2.1 The procedure applies to all the stations. *Slight differences among each station will be due to different vacuum equipment, size of the isolatable section sizes, surfaces, volumes, and quantities involved relating to instrumentation, equipment, etc.*
- 2.2 Tests will be performed by PSI personnel, and will be witnessed by an agent designated by LIGO.

3.0 REFERENCE DOCUMENTS

The attached equipment acceptance test data/test verification form shall be filled out when performing the ATP and presented to LIGO.

4.0 RESPONSIBILITY

It shall be the responsibility of the project engineer assigned to this component or subsystem to ensure that all procedures required by this acceptance test procedure are performed, and that a person from LIGO designated as the witnessing agent, and who has signoff authority, shall sign the data sheet/test certification attached to this procedure, verifying that the procedures have been performed, and meet all requirements. The data sheet shall also be signed by the project engineer or by someone designated by the PSI project manager. Any test listed in the data sheet which is not applicable to this component or subsystem shall be noted by writing "N/A" in the appropriate space. Any deviations from the test procedures or parameters shall be noted on this data sheet.

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5.0 FIELD TEST

5.1 Bakeout System Blankets and Carts

- a. All bakeout carts will be tested per PSI fabrication specification V049-2-068 prior to shipment to the site.
- b. All blankets will be tested for continuity and operation at the vendor's shop.
- c. Blanket systems shall be tested for performance during each station bakeout.
- d. Blankets are accepted if they successfully bakeout the station systems.

5.2 Bakeout, heatup and cooldown shall be 1.0°C/hr. maximum. (Note: Large gate valves are the limiting component in the bakeout heating rate.)

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LIGO VACUUM EQUIPMENT ACCEPTANCE TEST DATA/TEST VERIFICATION

Equip. Tag _____ S/N _____

Type of Test	ATP Para.	ATP Req' ment/ Actual Data	Comments	LIGO Witness Sign./date	PSI Sign./date
Visual Inspection		PSI field check			
Labeling Verification		PSI field check			
Blanket Fit Test		PSI field check			
Electrical continuity test		Check at Vendor			
System interlocks test		PSI check at PSI PSI field check			
Functional Test		PSI field check			
Vessel Bakeout					

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