



TTR Leak Check Procedure for Test Chambers

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Abstract:

This procedure is to establish general requirements for leak checking the Test Chambers before beginning normal operations.

SSC LABORATORY PROCEDURE	NUMBER GEM-TN-92-155	REV	PAGE 1 of 2
	EFFECTIVE DATE	SUPERSEDES	
	SPONSORING FUNCTION GEM		
	APPROVED BY DRAFT		
SUBJECT TTR Leak Check Procedure for Test Chambers			

1.0 PURPOSE

This procedure is to establish general requirements for leak checking the Test Chambers before beginning normal operation.

2.0 SCOPE

The scope of this procedure is limited to the routine operation of the TTR and the Test Chambers. It prepares the Test Chambers for the safe initiation of the flow of test gases and high voltage.

3.0 DEFINITIONS

Test Chamber - one of many detection chambers that are to used in the TTR
TTR - Texas Test Rig

4.0 PROCEDURE

The following are the general procedures for leak checking one of the test technologies for the TTR.

Note: GEM-TN-92-152, TTR Emergency Procedures, will be followed as the situation warrants.

4.1 The Test Chambers shall be leak checked when any of the following applies:

- a. Initial operation of the chambers, or
- b. Chambers that have been inactive for more than four weeks, or
- c. Significant modification or maintenance action has been made to the Test Chambers, or
- d. Operational indications that a leak may exist.

4.1.1 Leak checking is not required for minor maintenance actions which are not leak related.

4.1.2 Leak check may be performed in conjunction with the GEM-TN-92-154, TTR Purging Procedures for the same test chamber.

WARNING: Failure to leak check, with associated repairs, may result in a potential flammable mixture in test area.

4.2 Ensure all electrical systems electrical power disconnected or turned off.

WARNING: Failure to remove electrical power may result in a potential shock hazard.

4.3 Allow gas to flow at a pressure and volumetric flow rate appropriate for the test technology being leak checked.

4.3.1 Pressure and flow rate depend on the technology being tested.

4.3.2 If leak check is performed during purging procedures, the pressure and flow rate shall be sufficiently above normal operating pressure to verify the integrity of the gas lines.

4.3.3 If leak check is performed during operation of test chamber, then operating pressure and flow rate shall not exceed normal test chamber operating conditions.

4.4 Using approved leak detection solution or electronic detector, inspect entire gas system or suspected leak area.

4.5 If a leak is detected, shut down gas flow and repair.

4.6 After repairs have been accomplished, perform another leak check prior to returning the test chamber to service.

4.7 Record system, test technology, that inert gas was used, pressure, volumetric flow, date and person(s) performing the procedure. This record may be an entry in the appropriate TTR Test Chamber Log Book. Record shall include signature of person performing work and one witness to the work performed.

5.0 RESPONSIBILITIES

It is the sole responsibility of the TTR Project Manager to ensure the proper implementation of this procedure.

6.0 REFERENCES

GEM-TN-92-154 TTR Purging Procedures
GEM-TN-92-152 TTR Emergency Procedures
Applicable TTR Test Chamber Log Book