Approval

Approving Authority	*Name*	*Signature*	*Date*
Process Systems Manager	Michael Delgado		3/26/15
Quality Assurance Manager	Steve Washington		3/26/15
V.P. Engineering	Steve Rusconi		3/30/15
Operations Manager	Steve Hansen		3/26/15
President	Joseph Parisi		3/31/15

Revision History

Revision #	*Description of Change*	*Effective Date*	*DCR#*
0	Original	3/3/1997	
1	Modification	5/7/1997	
2	Data Modification	11/19/01	01010
3	Data Modification	3/31/2015	15003

1 Purpose

1.1 To establish a standard procedure for performing duct leakage testing.

2 Scope

2.1 This procedure applies to the all supply, return, makeup, exhaust, and relief, galvanized, stainless duct and fittings. Manufactured equipment and apparatus, such as fans, coils, and VAV boxes are excluded.

3 Reference

3.1 SMACNA HVAC Air Duct Leakage Test Manual, Current Edition.

3.2 NEBB Testing Adjusting Balancing Manual for Technicians, Current Edition.

3.3 NEBB Procedural Standards for Testing Ajustment and Balancing of Environmental Systems, Current Edition.

4 Definition

4.1	CFM	Cubic Feet per Minute
4.2	FPM	Feet Per Minute
4.3	HVAC	Heating, Ventilating, and Air Conditioning
4.4	NEBB	National Environmental Balancing Bureau
4.5	TAB	Test, Adjust, and Balance
4.6	VAV	Variable Air Volume

5 Responsibility

5.1 TAB technician(s) shall record all test readings on Form FN 8.008.1 Air Duct Leakage Test Summary.

5.2 The TAB Department Manager shall monitor and manage the retention of completed testing records.

5.3 All test equipment utilized shall be in calibration in accordance with NEBB Standards and traceable to the National Institute of Standards and Technology (NIST).

6 Materials Requirement

6.1 Temporary seals, sheet metal, plastic plugs or equivalent

7 Test Equipment

7.1 Calibrated Orifice Tube / Air Flow Measuring Device of equal accuracy

7.2 Blower with Volume Control

7.3 Duct Test Pressure Manometer

7.4 Orifice Differential Pressure Manometer.

8 Procedures

8.1 Isolate the duct section to be tested with temporary seals, blank offs, plates, or equivalent.

8.2 Attach a calibrated orifice tube with blower to the duct.

8.3 Connect the duct test pressure manometer to the test section.

8.4 Start the blower on low speed and slowly open the inlet damper until the test pressure is achieved.

8.5 Connect the orifice differential pressure manometer (air) to the orifice tube and record the pressure. Determine the flow rate from the calibration chart for the orifice tube utilized.

8.6 Compare with the maximum percent of allowable leakage. If it does not meet the rate of allowable leakage, repair all audible and other significant leaks. Re-test until the leakage rate is acceptable.

8.7 Record all data on the Form FN 8.008.1 Air Duct Leakage Test Summary.

8.8 Remove all temporary seals and blank offs.

9 Review and Approval

9.1 Return the Form FN 8.008.1 Air Duct Leakage Test Summary to the TAB Department for review.

9.2 TAB Department Manager shall have responsibility to review and accept completed reports. Reviews and acceptance of reports may be delegated to the manager's staff.

9.3 Upon acceptance of test summary, the TAB Department shall file the original documents and distribute copies as needed.