

NFPA 2001 Clean Agent Enclosure Integrity Test

Conducted by:

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May 15, 2002

XYZ On Line Services, Computer Room (EIT Digital SAMPLE REPORT)

ENCLOSURE INTEGRITY TEST REPORT

XYZ On Line Services, Computer Room (EIT Digital SAMPLE REPORT)

Date of Test: **May 15, 2002** Time: **11:29 AM**
Tested by: **Mark Weathersby**
Job ID: **XYZ On Line Services, Computer Room (EIT Digital SAMPLE REPORT)**

Company

Name: **XYZ On Line Services, Inc.**
Address: **1234 Washington Blvd.**
Any Town OZ 00923

Telephone: **123-456-7890** Facsimile: **123-456-7899**
E-mail: **mail@xyzonlineservices.com**
Contact: **Mr. Jon Gates**

Location

Name: **XYZ On Line Services, Inc.**
Address: **890 Westpark Dr.**
Any Town OZ 00926

Telephone: **123-654-0987** Facsimile: **123-654-0988**
E-mail: **computer@xyzonlineservices.com**
Contact: **Mr. Tom Berry**

Zone Number: **Computer room, number 107**
Zone Location: **First floor**
Zone Description: **Computer and server room**

High Hazard: **HVAC Equipment**
Height of High Hazard: **7.50 feet**
Minimum Protected Height: **8.00 feet**
Per: **AHJ**

Comments:

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Zone Data

Protected Volume: **18000.00 cu ft**
Maximum protected height: **12.00 ft** (includes protected subfloor, if any)
Minimum Protected height: **8.00 ft**
Temperature inside zone: **68 F**
Temperature outside zone: **72 F**
Suppression Gas: **FM-200**
Gas design concentration: **7.00%**
Weight/Volume of gas: **0.0 lbs**

Maximum acceptable leakage area for 10 minute hold time: **483.10 sq in 3.35 sq ft**

Test Checklist

Tanks disconnected? **Y**
Free return air flow path? **Y**
Outside air pressure tube connected? **Y**
HVAC system off? **Y**
Panel in discharge mode? **Y**
Dampers activated? **Y**
Static pressure present? **N**

Test Data

Static pressure: **0.0 pa**
Zone depressurization: **15.5 pa**
Air flow volume: **1627 cfm**
Orifice plate ratio: **1.00**
Indicated leakage area (depressurization): **384.25 sq in 2.67 sq ft**
Zone pressurization: **15.7 pa**
Air flow volume: **1650 cfm**
Orifice plate ratio: **1.00**
Indicated leakage area (pressurization): **387.19 sq in 2.69 sq ft**

NFPA 2001, 2000 edition, Appendix C, Enclosure Integrity Test Procedure Leakage Area calculation results:

Leakage area: **385.72 sq in 2.68 sq ft** Predicted hold time at **8.00 ft** is **12.52 minutes.**

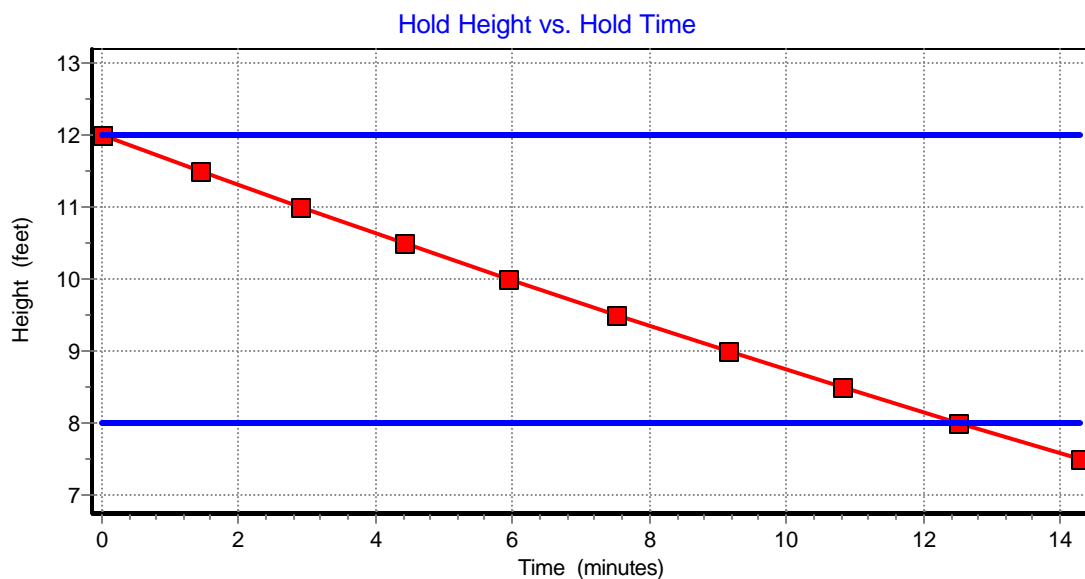
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Hold Height

Hold Time

12.00	0.00
12.00	0.00
11.50	1.44
11.00	2.91
10.50	4.41
10.00	5.95
9.50	7.52
9.00	9.14
8.50	10.81
8.00	12.52
7.50	14.29



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Leakage Survey

<u>Problem Area</u>	<u>Rsp</u>	<u>Cor</u>	<u>Comments</u>
Walls floor to deck?	Yes		
Walls caulked at floor?	Yes		
Walls caulked at deck?	Par		Pockets on west wall need to be sealed
Doors weather-stipped?	Yes		
Door, drop seals?	Yes		Metal thresholds need to be installed
Door closers installed and adjusted?	Yes		
Windows caulked?	None		
Exiting conduits sealed?	RY		
Exiting cables sealed?	RY		
Cable trays sealed?	None		
All holes, penetrations sealed?	Yes		
Floor drains trapped and filled?	None		
Dampers installed on all exiting ducts?	RY		
Dampers working and adjusted?	RY		
Block walls painted?	N/A		
Ceiling tiles clipped?	Yes		
HVAC shut down?	Yes		
Gas exhaust dampered?	None		
Gas exhaust damper closed?	None		

Rsp = Response

Cor = Corrected

Par = Partial

RY = Reported Yes

? = Unknown

N/A = Not Applicable

I/A = Inaccessible

ENCLOSURE INTEGRITY TEST REPORT

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Authority Having Jurisdiction

Name: **Lt. Stan Carr**
Title: **Inspector, Fire Prevention Division**
Company: **Any Town Fire Department**
Telephone: **123-678-4321** Facsimile: **123-678-4322**
E-mail: **carr@anytownfd.org**

Attendance

Mr. John Gates	XYZ On Line Services, Inc
Mr. Tom Barry	XYZ On Line Services, Inc.
Mr. Jerry Wolf	Wolf Contracting, Inc.

Conditions

This test is a calculated prediction of the hold time and is based on the NFPA Enclosure Integrity Procedure, Appendix B, NFPA 12A, 1992 edition and Appendix C, NFPA 2001, 2000 edition and on the condition of the room at the time of the test. This test was conducted in accordance with the NFPA procedure.

The Software was produced by Fire Safety Technology division of Worldwide Trade & Services, Inc. and is based on the equations and calculations in the above cited NFPA standards.

The Fire Safety Technology division nor Worldwide Trade & Services, Inc. assumes no responsibility or liability for the passage of a discharge test or for maintaining the concentration of the suppression gas for the predicted time in case of an actual emergency.

To assure the sealing integrity of the zone, NFPA 2001, 2000 edition Section 4-4 requires an annual inspection and possible retesting of the zone.

Test conducted by:

Mark Weathersby

ATTENTION

This room is protected with a clean agent gaseous fire extinguishing system.

To be effective in a fire emergency the fire suppression agent must be retained in the room.

Upon installation of this system, all doors were equipped with automatic closers, weather stripping and floor seals; all cables and conduits leading in or out of the room were sealed (including those above the ceiling or under the raised floor); and all leaks or cracks were sealed. As required, the room was tested per NFPA 2001, 2000 edition, Appendix C, Enclosure Integrity Procedure to assure it was properly sealed to retain the fire suppression agent.

For the safety of the occupants and equipment in this room:

1. Doors must not be blocked open.
2. All weather stripping and seals must be maintained in good operating condition.
3. Any new cables or conduits leading in or out of the room must be caulked and sealed.
4. Any holes or penetrations through the walls must be repaired and sealed.

To assure the sealing integrity of this room, NFPA 2001, 2000 edition, Section 4-4 requires an annual inspection and possible retesting of this room.

Test results:

Date: **May 15, 2002**

Leakage Area: **2.679 sq m**

Minimum Hold Height: **8.00 m**

Hold Time: **12.52 minutes**

Next Inspection due one year from Test Date.

For more information or to schedule an inspection contact:

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