

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



# CITY OF PORTLAND BUILDING PERMIT



**This is to certify that**

UNUM CORP /Dean & Allyn Inc.

**Located at**

2211 CONGRESS ST

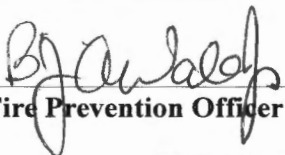
**PERMIT ID:** 2012-50151

**CBL:** 215 B002001

has permission to **install Novec 1230 Clean Agent System in LAN and telephone switching rooms.** provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise clsoed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be procured prior to occupancy.

  
Fire Prevention Officer

58

Code Enforcement Officer / Plan Reviewer

**THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY  
THERE IS A PENALTY FOR REMOVING THIS CARD**

**BUILDING PERMIT INSPECTION PROCEDURES**  
Please call 874-8703 (ONLY)  
or email: [buildinginspections@portlandmaine.gov](mailto:buildinginspections@portlandmaine.gov)

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

**REQUIRED INSPECTIONS:**

Final - Fire

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.

**City of Portland, Maine - Building or Use Permit**

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

<b>Permit No:</b> 201250151	<b>Date Applied For:</b> 11/13/2012	<b>CBL:</b> 215 B002001
--------------------------------	--	----------------------------

<b>Location of Construction:</b> 2211 CONGRESS ST	<b>Owner Name:</b> UNUM CORP	<b>Owner Address:</b> 2211 CONGRESS ST	<b>Phone:</b>
<b>Business Name:</b>	<b>Contractor Name:</b> Dean & Allyn Inc.	<b>Contractor Address:</b> P.O. Box 709 Gray	<b>Phone</b> (207) 657-5646
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Fire Suppression Non-Water Based	

<b>Proposed Use:</b> non water based fire suppression system	<b>Proposed Project Description:</b> install Novec 1230 Clean Agent System in LAN and telephone switching rooms.
---	---

<b>Dept:</b> Zoning	<b>Status:</b> Approved	<b>Reviewer:</b> Marge Schmuckal	<b>Approval Date:</b> 11/14/2012
<b>Note:</b>	<b>Ok to Issue:</b> <input checked="" type="checkbox"/>		

<b>Dept:</b> Fire	<b>Status:</b> Approved w/Conditions	<b>Reviewer:</b> Ben Wallace Jr	<b>Approval Date:</b> 12/24/2012
<b>Note:</b>	<b>Ok to Issue:</b> <input checked="" type="checkbox"/>		
<ol style="list-style-type: none"> <li>1) A letter of compliance is required for the extinguishing system and a fire alarm system record of completion is required for the fire alarm component.</li> <li>2) Records cabinet, FACP, annunciator(s), and pull stations shall be keyed alike.</li> <li>3) A Knox Box is required for the building.</li> <li>4) All fire alarm records required by NFPA 72 should be stored in an approved cabinet located at the FACP labeled "FIRE ALARM RECORDS".</li> <li>5) System acceptance and commissioning must be coordinated with alarm and suppression system contractors and the Fire Department. Call 874-8703 to schedule.</li> <li>6) The fire alarm system shall be certified by a master fire alarm company and have a new fire alarm inspection sticker.</li> <li>7) The installation shall comply with the following:  City of Portland Chapter 10, Fire Prevention and Protection;  NFPA 2001, Standard on Clean Agent Fire Extinguishing Systems (2008 edition);  City of Portland Fire Department Rules and Regulations;  NFPA 72, National Fire Alarm and Signaling Code (2010 edition), as amended by Fire Department Rules and Regulations; and  NFPA 70, National Electrical Code (2011 edition) as amended by the State of Maine.</li> </ol>			



emailed  
electronic copies

2012 11 5 387



# Non-Water-Based Fire Suppression System Permit

If you or the property owner owes real estate or property taxes or user charges on any property within the city, payment arrangements must be made before permits of any kind are accepted.

Installation address: 2211 CONGRESS ST CBL: 015 3002

Exact location: (within structure) UNUM HO1 LAN/TELEPHONE SWITCH ROOM Ground Fl

Type of occupancy(s) (NFPA & ICC): LIGHT HAZARD

Building owner: UNUM

Managing Supervisor: HILLER NEW ENGLAND License No: N/A

Supervisor phone: 1-800-510-9621 E-mail: JEFF.LIDD@HILLERNE.COM

Installing contractor: DEAN & ALLYN License No: 262

Contractor phone: 207-657-5646 E-mail: DSTEWART@DEANANDALLYN.COM

The suppression work to be done will be: New:  Renovation:  Addition to existing system:

This is an amendment to an existing permit: Yes:  NO:  Permit no: \_\_\_\_\_

System Type: NOVEC 1230 CLEAN AGENT

NFPA Standard: 2001 Edition: 2012

\*Non-NFPA systems are not approved for use within the City of Portland.

Download a new copy of this document from [www.portlandmaine.gov/fire](http://www.portlandmaine.gov/fire) for every submittal. Attach all working documents as required on electronic PDF's in addition to full sized plans.

<p>COST OF WORK: <u>75,367</u></p> <p>PERMIT FEE: <u>\$780</u>  <small>(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)</small></p> <p style="text-align: center;"><b>RECEIVED</b></p> <p style="text-align: center;"><b>NOV 13 2012</b></p> <p style="text-align: center;">Dept. of Building Inspections City of Portland Maine</p>
---

Submit all information to the Building Inspections Department, 389 Congress Street, Room 315, Portland, Maine 04101.

Prior to acceptance of any fire protection system, a complete commissioning and acceptance test must be coordinated with all fire system contractors and the Fire Department, and proper documentation of such test(s) provided.

All installation(s) must comply with NFPA and the Fire Department Technical Standard(s).

Applicant signature: [Signature] Date: 1/13/12



**Hiller New England Fire Protection, Inc.**

240 Ballardvale St.  
Wilmington, MA 01887  
engineering@hillerne.com  
www.hillerne.com  
Phone: (978) 657-5550 FAX: (978) 657-0016  
Sapphire™ Designer Program - ANSL3.61b  
UL: EX4510 FM: 3014140  
Project: Telephone Switch Room  
File Name: A-2576-2r0; Telephone Switch Room.FLC

**Consolidated Report  
Customer Information**

Company Name: Unum  
Address: 2211 Congress St.  
Portland, ME

Phone:  
Contact:  
Title:

**Project Data**

Project Name: Telephone Switch Room  
Designer: Engineering Department  
Number: NE2576  
Account:  
Location:  
Description:



## Consolidated Report Enclosure Information

Elevation: 0 ft (relative to sea level)  
Atmospheric Correction Factor: 1

---

Enclosure Number: 1  
Name: Telephone Switch Room  
Enclosure Temperature...  
Minimum: 65 F  
Maximum: 75 F  
Maximum Concentration: 4.818 %  
Design Concentration...  
Adjusted: 4.723 %  
Minimum: 4.700 %  
Minimum Agent Required: 286.6 lbs  
Width: 40.0 ft  
Length: 17.8 ft  
Height: 9.4 ft

---

Volume: 6692.8 cubic ft  
Non-permeable: 56.4 cubic ft

---

Total Volume: 6636.4 cubic ft  
Adjusted Agent Required: 288.0 lbs  
Number of Nozzles: 2



## Consolidated Report Agent Information

Agent: Novec / Propellant N2  
(Novec is a trademark of 3M)

Adjusted Agent Required: 288.0 lbs  
Container Name: 390 lb Cylinder Assembly  
Container Part Number: 570640  
Number of Main Containers: 1  
Number of Reserve Containers: 0  
Manifold: No Manifold  
  
Starting Pressure: 360 psig  
Pipe Take Off Direction: Horizontal  
Agent Per Container: 288.0 lbs  
Fill Density: 55.5 lbs / cubic ft  
Container Empty Weight: 198.2 lbs  
Weight, All Containers + Agent: 486.2 lbs  
Floor Area Per Container: 1.40 square ft  
Floor Loading Per Container: 348 lbs / square ft

### Pipe Network

#### Part 1 - Pipe

Description	Start	End	Type	Diameter	Length	Elevation
Main Cyl. X 1	0	1		2 in	4.44 ft	4.44 ft
Adaptor	1	2		2 in	0.28 ft	0.00 ft
Pipe	2	3	40T	1-1/2 in	8.33 ft	8.33 ft
Pipe	3	4	40T	1-1/2 in	5.33 ft	0.00 ft
Pipe	4	5	40T	1-1/2 in	2.75 ft	0.00 ft
Pipe	5	6	40T	1-1/4 in	1.20 ft	0.00 ft
Pipe	6	7	40T	1-1/4 in	14.00 ft	0.00 ft
Pipe	7	8	40T	1-1/4 in	3.60 ft	0.00 ft
Pipe/E1-N2	8	9	40T	1-1/4 in	3.50 ft	-3.50 ft
Pipe	5	10	40T	1-1/2 in	14.25 ft	0.00 ft

Page: 3 of 6

Calculation Date/Time: Thursday, November 08, 2012, 9:45:48 AM  
Copyright (c) Hughes Associates, Inc. Licensed to: Ansul Incorporated





## Consolidated Report

### Part 1 - Pipe

Description	Start	End	Type	Diameter	Length	Elevation
Pipe/E1-N1	10	11	40T	1-1/2 in	3.50 ft	-3.50 ft

### Part 2 - Equivalent Length

Start	End	90	45	Thru	Side Union	Other	Added	Total
0	1	0	0	0	0	0	0.00 ft	35.0 ft
1	2	0	0	0	0	0 2inadap	0.00 ft	1.2 ft
2	3	1	0	0	0	0	0.00 ft	12.6 ft
3	4	1	0	0	0	0	0.00 ft	9.6 ft
4	5	1	0	0	0	0	0.00 ft	7.1 ft
5	6	0	0	0	1	0	0.00 ft	8.7 ft
6	7	1	0	0	0	0	0.00 ft	17.7 ft
7	8	1	0	0	0	0	0.00 ft	7.3 ft
8	9	1	0	0	0	0	0.00 ft	7.2 ft
5	10	0	0	0	1	0	0.00 ft	23.0 ft
10	11	1	0	0	0	0	0.00 ft	7.8 ft

### Part 3 - Nozzles

Start	End	Flow	Name	Size	Type	Nozzle Area
0	1	288.0 lbs				
1	2	288.0 lbs				
2	3	288.0 lbs				
3	4	288.0 lbs				
4	5	288.0 lbs				
5	6	115.2 lbs				
6	7	115.2 lbs				
7	8	115.2 lbs				
8	9	115.2 lbs	E1-N2	1-1/4 in	7 Port - BR	0.5870 square in
5	10	172.8 lbs				
10	11	172.8 lbs	E1-N1	1-1/2 in	7 Port - BR	0.8866 square in

### Parts Information



## Consolidated Report

Total Agent Required: 288.0 lbs  
Container Name: 390 lb Cylinder Assembly (Part: 570640)  
Number Of Containers: 1  
Field1

Nozzle	Type	Diameter	Nozzle Area	Part Number
E1-N1	7 Port - BR	1-1/2 in	0.8866 square in	570519
E1-N2	7 Port - BR	1-1/4 in	0.5870 square in	570518

Nozzle	Drill Diameter	Drill Size
E1-N1	0.4016 inches	10.20 mm
E1-N2	0.3268 inches	8.30 mm

Pipe:	Type	Diameter	Length
	40T	1-1/4 in	22.30 ft
	40T	1-1/2 in	34.16 ft

'Other' Items:  
1 - 2 in Union Adaptor (Part: 570558)

List of 90 degree elbows:  
4 - 1-1/2 in  
3 - 1-1/4 in

List of Tees:  
1 - 1-1/2 in

### System Acceptance

System Discharge Time: 9.3 seconds  
Percent Agent In Pipe: 28.7%  
Percent Agent Before First Tee: 11.9%  
Enclosure Number: 1  
Enclosure Name: Telephone Switch Room  
Minimum Design Concentration: 4.700%  
Adjusted Design Concentration: 4.723%  
Predicted Concentration: 4.723%

Page: 5 of 6

Calculation Date/Time: Thursday, November 08, 2012, 9:45:48 AM  
Copyright (c) Hughes Associates, Inc. Licensed to: Ansul Incorporated

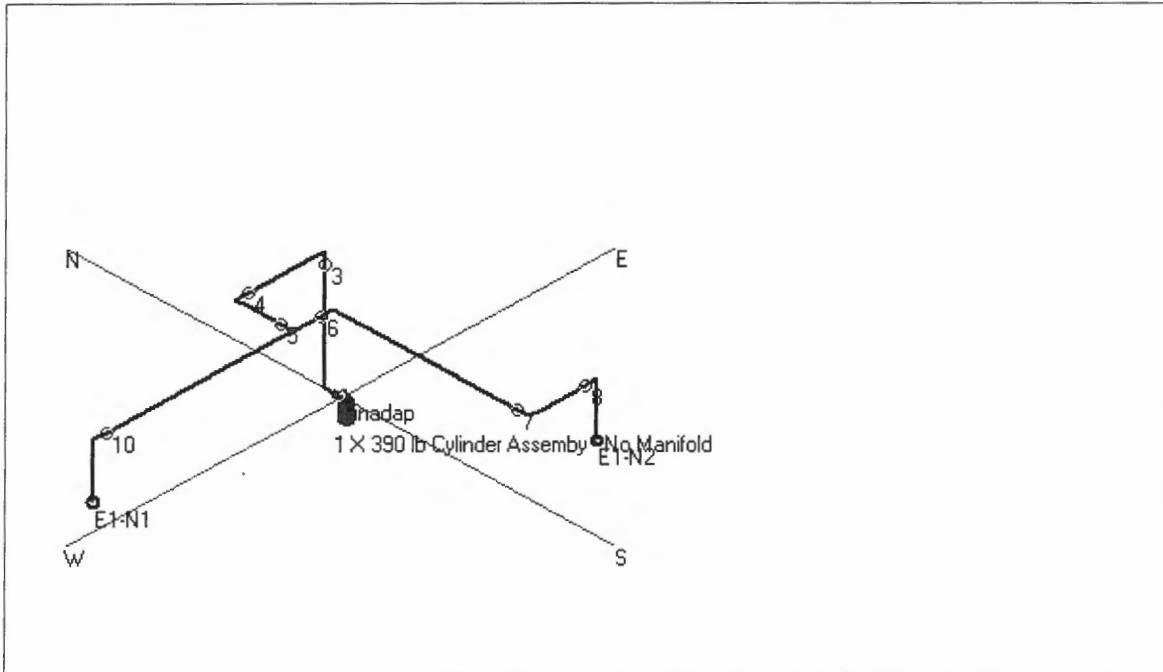


### Consolidated Report

Maximum Expected Agent Concentration: 4.818% (At 75 F)

Nozzle	Minimum Agent Required	Adjusted Agent Required	Predicted Agent Delivered	Nozzle Pressure (Average)
E1-N1	172.0 lbs	172.8 lbs	172.2 lbs	96 psig
E1-N2	114.6 lbs	115.2 lbs	115.8 lbs	90 psig

Drawing View: 1





**Hiller New England Fire Protection, Inc.**

240 Ballardvale St.  
Wilmington, MA 01887  
engineering@hillerne.com  
www.hillerne.com  
Phone: (978) 657-5550 FAX: (978) 657-0016  
Sapphire™ Designer Program - ANSL3.61b  
UL: EX4510 FM: 3014140  
Project: Lan Room  
File Name: A-2576-1r0; Lan Room.FLC

**Consolidated Report  
Customer Information**

Company Name: Unum  
Address: 2211 Congress St.  
Portland, ME

Phone:  
Contact:  
Title:

**Project Data**

Project Name: Lan Room  
Designer: Engineering Department  
Number: NE2576  
Account:  
Location:  
Description:



## Consolidated Report

Total Agent Required: 379.0 lbs  
Container Name: 850 lb Cylinder Assembly (Part: 570586)  
Number Of Containers: 1  
Field1

Nozzle	Type	Diameter	Nozzle Area	Part Number
E1-N1	16 Port - BR	1-1/4 in	0.5471 square in	570605
E1-N2	16 Port - BR	1-1/2 in	0.9273 square in	570606

Nozzle	Drill Diameter	Drill Size
E1-N1	0.2087 inches	5.30 mm
E1-N2	0.2717 inches	6.90 mm

Pipe:	Type	Diameter	Length
	40T	1-1/4 in	6.00 ft
	40T	1-1/2 in	72.83 ft

'Other' Items:

1 - 3 in Flared to NPT Valve Adapter (Part: 69470)

List of 90 degree elbows:

6 - 1-1/2 in

1 - 1-1/4 in

List of Tees:

1 - 1-1/2 in

### System Acceptance

System Discharge Time: 9.8 seconds

Percent Agent In Pipe: 36.0%

Percent Agent Before First Tee: 23.9%

Enclosure Number: 1

Enclosure Name: Lan Room

Minimum Design Concentration: 4.700%

Adjusted Design Concentration: 4.773%

Predicted Concentration: 4.773%

Page: 5 of 6

Calculation Date/Time: Thursday, November 08, 2012, 9:44:39 AM

Copyright (c) Hughes Associates, Inc. Licensed to: Ansul Incorporated

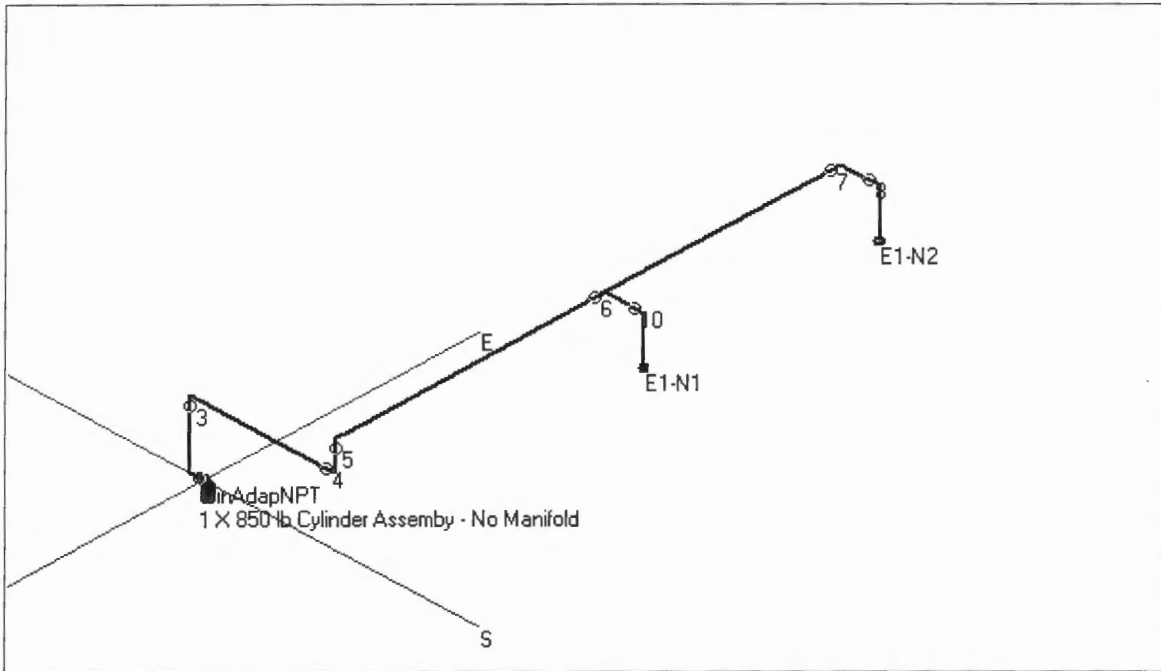


### Consolidated Report

Maximum Expected Agent Concentration: 4.869% (At 75 F)

Nozzle	Minimum Agent Required	Adjusted Agent Required	Predicted Agent Delivered	Nozzle Pressure (Average)
E1-N1	112.2 lbs	114.0 lbs	113.4 lbs	126 psig
E1-N2	260.7 lbs	265.0 lbs	265.6 lbs	109 psig

Drawing View: 1





# PORTLAND MAINE

*Strengthening a Remarkable City, Building a Community for Life • [www.portlandmaine.gov](http://www.portlandmaine.gov)*

## Receipts Details:

**Tender Information:** Check , BusinessName: mastercard, Check Number: 7484\$30.00

**Tender Amount:** 30.00

## Receipt Header:

**Cashier Id:** gguertin

**Receipt Date:** 11/14/2012

**Receipt Number:** 50204

## Receipt Details:

Referance ID:	8716	Fee Type:	BP-Constr
Receipt Number:	0	Payment Date:	
Transaction Amount:	30.00	Charge Amount:	30.00
Job ID: Job ID: 2012-11-5387-FAFS - non water based fire suppression system			
Additional Comments: 2211 congress			

Thank You for your Payment!



# PORTLAND MAINE

*Strengthening a Remarkable City, Building a Community for Life* • [www.portlandmaine.gov](http://www.portlandmaine.gov)

Receipts Details:

**Tender Information:** Check , BusinessName: mastercard, Check Number: 7484\$30.00

**Tender Amount:** 30.00

Receipt Header:

**Cashier Id:** gguertin

**Receipt Date:** 11/14/2012

**Receipt Number:** 50204

Receipt Details:

Referance ID:	8716	Fee Type:	BP-Constr
Receipt Number:	0	Payment Date:	
Transaction Amount:	30.00	Charge Amount:	30.00
Job ID: Job ID: 2012-11-5387-FAFS - non water based fire suppression system			
Additional Comments: 2211 congress			

Thank You for your Payment!