

ICC-ES Evaluation Report

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ESR-3230

Issued May 2014

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DIVISION: 21 00 00—FIRE SUPRESSION Section: 21 22 18—Fixed Condensed Aerosol Extinguishing System Units

REPORT HOLDER:

FIREAWAY INC. 5852 BAKER ROAD MINNETONKA, MINNESOTA 55345 (952) 935-9745 www.statx.com agee@statx.com

EVALUATION SUBJECT:

STAT-X[®] FIXED CONDENSED AEROSOL FIRE-EXTINGUISHING SYSTEM

ADDITIONAL PRIVATE LABEL LISTEE:

PERIPHERAL MANUFACTURING, INC. (AERO-K) 2171 S. TRENTON WAY, SUITE 207 DENVER, COLORADO 80231 (303) 371-8651 www.periphman.com

1.0 EVALUATION SCOPE

Compliance with the following codes:

2012 and 2009 International Fire Code[®] (IFC)

Property evaluated:

Fire suppression

2.0 USES

Stat- X^{\otimes} fixed condensed aerosol fire-extinguishing systems are used in normally unoccupied and unoccupied spaces as a total flooding fire suppression system for Class A (surface), Class B and Class C fires, to protect specific materials (especially hazardous materials) housed in fixed enclosures. The systems are alternatives to the Halon fire-extinguishing systems specified in Section 904.9 of the IFC.

3.0 DESCRIPTION

3.1 General:

Stat- X^{\otimes} fixed condensed aerosol fire-extinguishing systems are total flooding systems that consist of a condensed aerosol generator and an actuating mechanism. The systems comply with UL Subject 2775 and NFPA 2010. The systems do not require a piping distribution system.

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The generator stores the solid aerosol forming compound and discharges the fire-extinguishing agent through discharge ports that are integral with the generator.

3.2 Models:

Stat- X^{\otimes} Models are given in Table 1 with maximum volume of coverage, maximum area coverage, maximum mounting height and minimum separation. Table 1 provides maximum specified coverage parameters for the electrically operated generators, the system must be designed in accordance with Section 4.1 to properly size the system.

4.0 DESIGN AND INSTALLATION

4.1 Design:

The Stat- X^{\otimes} fixed condensed aerosol fire-extinguishing systems must be designed by trained and certified distributors authorized by Fireaway Inc. using design calculations and methods described in the Fireaway Inc. Stat-X[®] Fire Suppression Systems, Design, Installation, Operation and Maintenance Manual Version 1.3.4, dated November 2011. The design manual must use data on dimensions, areas of leakage and location of uncloseable openings, along with fire class and other factors, to arrive at system-specific requirements. When required by the code official, when design calculations are performed using the Fireaway proprietary computer-aided design program, a sample report for the program must be submitted to the code official for evaluation to compare with the calculations and methods described in the design manual. The calculated minimum design agent quantity shall be the same or higher than that described in the manual.

4.2 Installation:

 $Stat-X^{\text{@}}$ fixed condensed aerosol fire-extinguishing systems must be installed in accordance with the manufacturer's published installation instructions, Section 904 of the IFC, NFPA 2010 and this report. The equipment must be installed to facilitate proper operation, inspection, testing and maintenance.

5.0 CONDITIONS OF USE

The *Stat-X*[®] Fixed Condensed Aerosol Extinguishing System Units described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 Fixed condensed aerosol fire-extinguishing systems must be installed, inspected, tested and maintained in accordance with this report, the *Stat-X*[®] listing, Section 904 of the IFC, and NFPA 2010.

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- **5.2** Fire detection systems for fixed condensed aerosol fire-extinguishing systems must be designed, installed, tested and maintained in accordance with the applicable requirements of NFPA 70 and NFPA 72.
- **5.3** Fixed condensed aerosol fire-extinguishing systems are limited to suppression of Class A (surface), Class B and Class C fires in normally unoccupied and unoccupied spaces as limited in accordance with NFPA 2010. Testing to the satisfaction of the code official is required for suppression of specific materials listed in NFPA 2010.
- **5.4** A system design and drawings showing compliance with this report must be submitted to the code official. The design must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. (Refer to Section 4.1).
- **5.5** In total flooding installations in normally unoccupied spaces where personnel may be present, a 30-second time delay must be installed to insure egress time prior to system discharge and a system isolate

switch shall be installed outside the hazard area to insure that activation of the system is "manual only" when personnel are present.

5.6 *Stat-X*[®] Fixed Condensed Aerosol Extinguishing System Units are produced at Minnetonka, MN, under a quality control program with inspections by ICC-ES and UL LLC (AA-668).

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Fixed Condensed Aerosol Fire-Extinguishing Systems (AC432), dated June 2011 (editorially revised March 2014).

7.0 IDENTIFICATION

Stat-X[®] Fixed Condensed Aerosol Extinguishing System Units and components must be labeled with the report holder's name (Fireaway Inc.) and address or the additional private label listee's name (Peripheral Manufacturing) and address, the product name (*Stat-X*[®] or *Aero-K*), the evaluation report number (ESR-3230), and the name and/or mark of UL LLC.

Model		Maximum Volume Coverage		Maximum Area Coverage		Maximum Mounting Height	
Stat-X	Aero-K	M ³	Ft ³	meter	feet	meter	feet
30 E	G 30	0.45	15.89	1.2 x 1.2	3.95 x 3.95	1.22	4.0
60 E	G 60	0.90	31.78	1.70 x 1.70	5.60 x 5.60	2.00	6.6
60 E Long Tube	N/A	0.90	31.78	1.70 x 1.70	5.60 x 5.60	2.00	6.6
100 E	G 100	1.49	52.71	2.18 x 2.18	7.20 x 7.20	2.50	8.2
250 E	G 250	3.73	131.8	3.45 x 3.45	11.3 x 11.3	2.75	9.0
500 E	G 500	7.46	263.5	4.88 x 4.88	16.0 x 16.0	3.50	11.5
1000 E	G 1000	14.9	527.1	4.88 x 4.88	16.0 x 16.0	5.00	16.0
1500 E	G 1500	22.4	790.6	4.88 x 4.88	16.0 x 16.0	5.00	16.0
2500 E	G 2500	37.3	1371.7	4.88 x 4.88	16.0 x 16.0	5.00	16.0

TABLE 1—STAT-X[®] AND AERO-K MODELS—COVERAGE PARAMETERS¹

Notes:

¹Table 1 provides maximum specified coverage parameters for the electrically operated generators; the system must be designed in accordance with Section 4.1 to properly size the system. Maximum coverage is based on an enclosure using an adjustment factor of $K_1 = 1.0$, $K_2 = 1.0$ and $K_3 = 1.0$. Refer to the design manual for definition and application of the K factors.