

December 23, 2019

Siex 2001 S. L. Mr. Jairo González Pol. Ind. Villalonquejar C / Meindad de Montija No. 6 090001, Burgos SPAIN

Reference: File GMFZ.EX27491

Subject: Status of Investigation FK-5-1-12 and HFC-227ea Self-contained Automatic Extinguisher Units Utilizing Heat Detection Tubing.

Dear Mr. González:

This is a status report as of the date of this letter concerning the investigation being conducted under the referenced File number.

This investigation was established to determine UL Certification for Automatic type Extinguishing Units, utilizing Siex's Clean Agent Extinguishing System components in accordance with the requirements in the Standard for Safety, Halocarbon Clean Agent Extinguishing System Units, UL 2166.

The testing was conducted for these units and Siex has provided UL with draft copies of the Design, Operation, Installation and Maintenance Manual. As part of UL's visit to Siex during January 15th through the 17th, we will be reviewing these Manuals with Siex's staff so we can complete this aspect of the investigation which will allow these extinguishing system units to be eligible for UL Certification.

It is understood that your Application constitutes your agreement not to use the name of UL LLC (UL), any abbreviation thereof, or symbol thereof, nor to permit such use by others, in connection with the release, publication, or other dissemination, of the information obtained in this letter, unless specifically authorized in writing by UL. In no event shall UL be responsible to anyone for whatever use or non-use is made of the information contained in this letter and in no event shall UL, its employees or its agents incur any obligations or liabilities for damage, including, but not limited to, consequential damages arising out of or in connection with the use, or ability to use, the information contained in this letter. References to UL in association with your products can be made only once you are authorized by UL to use the appropriate UL Mark on your product.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

If there is any additional information that we may provide to you about the investigation or UL's other services, please do not hesitate to contact us.

Sincerely,

Stephen J. Angeliu Staff Engineer Tel: 847-664-3687 E-mail: Stephen.J.Angeliu@ul.com

APPENDIX A

Products Submitted under the Subject Investigation:

ENGINEERED UNITS, Model SIEX-TRACE 1230, FK-5-1-12 Self-contained Automatic Extinguisher Units, stored pressure type, having nominal charging capacities of 13 L. The units are super pressurized to 15 bar and 25 bar at 21°C with operating temperatures of 0 °C to +50 °C. The units are designed for total flooding protection against Class A surface burning, Class B flammable liquid and Class C fires occurring within an enclosure.

ENGINEERED UNITS, Model SIEX-TRACE 227, HFC-227ea Self-contained Automatic Extinguisher Units, stored pressure type, having nominal charging capacities of 13 L. The units are super pressurized to 15 bar and 25 bar at 21°C with operating temperatures of -20 °C to +50 °C. The units are designed for total flooding protection against Class A surface burning, Class B flammable liquid and Class C fires occurring within an enclosure.

APPENDIX B

Standard For Safety For Halocarbon Clean Agent Extinguishing System Units, ANSI/CAN/UL/ULC 2166 - Fourth Edition, dated October 17, 2018

Test Designation	Section	UL Project Number	Status
30-Day Elevated Temperature	27	4787951772	Completed 2019-11-22
Temperature Cycling	28	4787951772	Completed 2019-11-22
One-Year Time Leakage	33	4787951772	Completed 2019-11-22
Functional Testing		13CA34232	Completed 2013-06-28
Hydrostatic Strength		13CA19941	Completed 2013-05-21
		13CA34232	Completed 2013-06-28
Leakage Test		13CA19941	Completed 2013-05-21
		13CA34232	Completed 2013-06-28
500 Cycle Operation	30	13CA19941	Completed 2013-05-21
Burst Disc Testing		13CA55458	Completed 2014-03-14
Elastomeric Material Testing		14CA40752	Completed 2014-03-14
Aging Test – Plastic Material Test		13CA46027	Completed 2013-11-15
Corrosion Tests:			
-Salt spray corrosion test		13CA55176	Completed 2014-02-28
-10 Days moist ammonia stress cracking			
Class A and B Fire Clean Agent Ext.	35	4786257918	Completed 2014-07-14
Nozzle Distribution Verification	36	4787635682	Completed 2016-12-27
Automatic Extinguisher Unit Fire Test	36	4787711807	Completed 2017-01-02
Heat Automatic Fire Detector - Component	-		
Fire Detector Tubing		4788466644	Completed 2019-03-18
Approval No. UQGS2.S36180			