U.S. Department
of Transportation

Federal Aviation Administration

**Transport Airplane Directorate
Los Angeles Aircraft
Certification Office**

3960 Paramount Boulevard
Lakewood, California 90712-4137

February 22, 2013

In reply refer to: 140L-13-44

AMETEK Ameron, LLC
dba MASS Systems
Attn: Mr. John Navarro
Engineering Manager
4750 Littlejohn Street
Baldwin Park, CA 91706

Subject: FAA Approval of the Fire Extinguisher Gas Chromatograph System (FGC00100-1)
FAA Project PM13992LA-T

Dear Mr. Navarro,

We have completed our review of the MASS Systems Qualification Test Report QTR-FGC00100-01 titled "*Fire Extinguisher Gas Chromatograph (FGC)",* Revision NC, dated September 25, 2012, and find it acceptable for use as described within the documentation for Halon 1301 and HFC-125. Approval must be obtained from the local Aircraft Certification Office which should coordinate this activity with the FAA Technical Center and Transport Airplane Directorate for use on other extinguishing agents.

We hereby approve use of the Fire Extinguisher Chromatograph FGC00100-1 for determining fire extinguishing agent concentration aboard aircraft within the accuracy identified in your AMETEK Ameron document TDS-FGC00100-1, Revision N/C, dated February 12, 2013, or later FAA approved revisions. When conducting fire extinguishing agent distribution and concentration tests, the instrument is to have a daily test calibration with the critical concentration of agent being used.

We have enclosed for your records an FAA approved Top Drawing, Document TDS-FGC00100-1, Revision N/C, dated February 12, 2013, and the cover page of the following documents:

1. Acceptance Test Procedure: Document No. ATP-FGC00100 "N/C"
2. Flight Check List (Operation Procedures): Document No. FCL-FGC00100-1 "A"
3. Electrical Schematic: Drawing No. FGC00211-1 "N/C"
4. Software Configuration Management: Document No. SCM-FGC00215-1 "N/C"

Any changes to the above documents or drawings must be submitted to the Los Angeles Aircraft Certification Office (LAACO) for approval prior to incorporation.

We accept that you will be providing more than one Firex Gas Chromatograph (FGC) and the additional units will be checked by the Acceptance Test Procedure, Document No. ATP-FGC00100 "N/C" or later FAA approved revisions. As identified in the certification report, you have evaluated and calibrated two different agents, Halon 1301 and HFC-125, both of which have defined minimum volumetric concentration requirements established by the FAA for use in certification.

Please provide a copy of this letter to the FAA project ACO when involved in a fire extinguishing certification project.

If there any questions, please contact Mr. William Bond, ANM-140L, at (562) 627-5253

Sincerely,

Thomas A. Enyart

Thomas A. Enyart
Manager, Propulsion Branch

Enclosures