



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

MAR 24 2003

DOT-E 11850
(FIFTH REVISION)

EXPIRATION DATE: December 31, 2004

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. **GRANTEE:** Members of Air Transport Association (ATA)

(See Appendix A of this exemption for a list of ATA members)
2. **PURPOSE AND LIMITATION:** This exemption authorizes an alternative inspection program utilizing acoustic emission (AE) testing in lieu of that required in § 180.205 for certain DOT specification and non-DOT specification cylinders used as components in aircraft fire suppressant systems. This exemption provides no relief from any regulation other than as specifically stated herein.
3. **REGULATORY SYSTEM AFFECTED:** 49 CFR Parts 106, 107 and 171-180.
4. **REGULATIONS FROM WHICH EXEMPTED:** 49 CFR § 172.301(c) in that the marking requirements are waived; 180.205(c), (f), (g) and 180.215(b)(2) in that the acoustic emission test is performed in place of the hydrostatic test and the internal visual inspection.
5. **BASIS:** This exemption is based on the application of ATA dated August 7, 2001, submitted in accordance with § 107.109 and additional information dated February 19, 2003.
6. **HAZARDOUS MATERIALS (49 CFR § 172.101):**

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Fire Extinguisher	2.2	UN1044	N/A

MAR 24 2003

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a DOT 4DA or 4DS specification cylinder, or a cylinder manufactured in accordance with DOT Exemption E-5861, E-6071, E-7026, E-7945 or E-8495 that is fabricated from a stainless steel, Nitronic 40 alloy, 4130 steel or titanium used as components of aircraft fire suppression systems, having maximum service pressure of 900 psi. The cylinder contains Bromotrifluoromethane R13B1, 2.2, UN1009. In lieu of the hydrostatic pressure test and internal visual examination prescribed in §180.205(c), (f), and (g), each cylinder must be examined in accordance with the test procedures specified in the application for exemption on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA) and as prescribed in this exemption.

b. TESTING: Each cylinder must be externally inspected in accordance with § 180.205(f) and meet the requirements of this section before being AE tested. The AE processor threshold level must be set at not greater than 25 dB. A cylinder fails when any of the following occurs:

(1) A cylinder has a cluster containing 35 or more events. A cluster is defined as all events located within a circle on the sphere which has a radius equal to 15 degrees of arc of the great circle (0.262 times the radius of the sphere) of the sphere; or

(2) A cylinder which has a cluster containing 18 or more events and has a ratio, R, equal to 3.0 or greater. The ratio R is defined as following:

$$R=N2/N1$$

N1 = number of events which occurred in the temperature range of 110° F to 130° F

N2 = number of events which occurred in the temperature range of 130° F to test temperature (a temperature which corresponds to the minimum required test pressure for AE testing).

A cylinder which fails the visual inspection or the AE test, must be removed from service and stamped condemned as specified in § 180.205(i).

MAR 24 2003

c. Equipment performance: The AE test equipment must be automated and capable of performing the following:

- (1) Pre and post system calibration using automated sensor testing (AST).
- (2) Starting and stopping the oven for proper pressurization of the cylinders during the test cycle.
- (3) Initiation and termination of the test cycle.
- (4) Collecting and analyzing the AE events during the test.
- (5) Determination of acceptance or rejection of a cylinder in accordance with the AE test criteria specified in paragraph 7.b. and the ATA application for exemption on file with OHMEA.

d. Personnel Qualifications and Responsibilities: Each facility where testing is to be performed must be under the managerial direction of a Senior NDT Review Technician.

- (1) A Senior NDT Review Technician must define the overall test program, provide supervisory training and technical guidance to operators, review and certify test results and maintain proof of qualifications for each "qualified tester". A Senior NDT Review Technician must have a Level III Certification in AE or UT, in accordance with the American Society for Nondestructive Testing (ASNT) Recommended Practice SNT-TC-1A and a thorough understanding of the AE testing and Hazardous Materials Regulations (49 CFR) pertaining to the qualification and use of DOT cylinders and this exemption. The Senior NDT Review Technician must submit an annual summary to the ATA and certify that the AE program is being operated in accordance with the requirements of this exemption. The summary must include the test results for each cylinder tested and the name and qualification document of each tester for each location where AE testing is being conducted under this exemption.

(2) The person performing cylinder testing, the "qualified tester", must at the minimum be a qualified Level I, AE tester in accordance with ASNT-TC-1A. He may perform system startup, calibrate the system, and review and validate the test results. Each "qualified tester" must have written procedures for conducting inspections, for operation of equipment, valid copies of this exemption, the HMR and other reference material required by the applicable sections of § 180.205 and this exemption, proof of his qualifications and records of all tests performed under this exemption at the facility where testing is performed.

8. SPECIAL PROVISIONS:

a. USE: Persons may use the cylinders tested in accordance with the terms of this exemption for the transportation of those hazardous materials identified in paragraph 6 of this exemption provided no modifications or changes are made to the packages, all terms of this exemption are complied with, and a current copy of this exemption is maintained at each facility from which such reoffering occurs.

b. MARKING:

(1) The exterior of each cylinder passing retest under the provisions of this exemption must be marked as prescribed in § 180.213(d) and as required in the original manufacturing specification or manufacturing exemption. In addition, each cylinder must be marked with the letters AE following the year of the retest (example 01 xx 98 AE).

(2) The marking requirements of § 172.301(c) are waived.

c. APPROVAL OF AE FACILITY: Each retest facility for AE testing must be approved as provided in Subpart I of Part 107 of the HMR except that staff of OHMEA will perform the functions of the IIA until such time as OHMEA determines that qualified IIAs can assume the function.

MAR 24 2003

Continuation of DOT-E 11850 (5th Rev.)

Page 5

9. MODES OF TRANSPORTATION AUTHORIZED: Cylinders retested under this exemption may be transported by the modes authorized in the manufacturing specification or manufacturing exemption subject to the restrictions applicable to the hazardous material being transported.
10. MODAL REQUIREMENTS: The modal requirements are the same as set forth in the manufacturing specification or manufacturing exemption subject to the restrictions applicable to the hazardous material being transported.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
 - o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS:
 - a. Each ATA member that chooses to operate a facility under this exemption will provide the ATA with a listing of test facilities including the names of Senior NDT technicians and the names of "qualified testers" for each facility. The ATA must provide a listing of operating test facilities to The Office of Hazardous Materials Exemptions and Approvals annually.

b. Each holder (ATA member) is required to report any incident involving packaging failure or loss of packaging contents, while in transportation, to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued in Washington, D.C.:



Roberts A. McGuire
for Associate Administrator
for Hazardous Materials Safety

MAR 24 2003

(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.
Attention: DHM-31.

Copies of this exemption may be obtained by accessing the Hazardous Materials Safety Homepage at <http://hazmat.dot.gov/exemptions> Photo reproductions and legible reductions of this exemption are permitted. Any alternation of this exemption is prohibited.

PO:MToughiry/sln

MAR 24 2003

ATA MEMBER AIRLINES

Airborne Express

P.O. Box 662
Seattle, WA 98111-0662
206-285-4600 (phone)

Alaska Airlines

P.O. Box 68900
Seattle-Tacoma International Airport
Seattle, WA 98168-0900
206-433-3200 (phone)
206-431-7253 (fax)

Aloha Airlines

P.O. Box 30028
Honolulu, HI 96820-0228
808-836-4101 (phone)
808-833-3100 (fax)

America West Airlines

4000 E. Sky Harbor Blvd.
Phoenix, AZ 85034
602-693-0800 (phone)
602-693-5517 (fax)

American Airline

P.O. Box 619616
DFW Airport, TX 75261-9616
817-963-1234 (phone)
817-967-4162 (fax)

American Trans Air

P.O. Box 51609
Indianapolis International Airport
Indianapolis, IN 46251-0609
317-247-4000 (phone)
317-240-7211 (fax)

Atlas Air

538 Commons Dr.
Golden, CO 80401
303-526-5050 (phone)
303-526-5051 (fax)

Continental Airlines

P.O. Box 4607
Houston, TX 77210-4607
713-324-5000 (phone)
713-523-2831 (fax)

Delta Air Lines

Hartsfield-Atlanta International Airport
Atlanta, GA 30320-9998
404-715-2600 (phone)
404-715-5494 (fax)

DHL Airways

333 Twin Dolphin Drive
Redwood City, CA 94065-1496
650-593-7474 (phone)
650-802-4783 (fax)

Emery Worldwide

One Lagoon Drive, Suite 400
Redwood City, CA 94065
650-596-9600 (phone)
650-596-7901 (fax)

Evergreen International

3850 Three Mile Lane
McMinnville, OR 97128-9496
503-472-0011 (phone)
503-434-4210 (fax)

Federal Express

P.O. Box 727
Memphis, TN 38132
901-369-3600 (phone)
901-398-1111 (fax)

Hawaiian Airlines

P.O. Box 30008
Honolulu International Airport
Honolulu, HI 96820-0008
808-835-3700 (phone)
808-835-3690 (fax)

Midwest Express

6744 S. Howell Avenue
Oak Creek, WI 53154
414-570-4000 (phone)
414-570-0080 (fax)

Northwest Airlines

Minn-St. Paul Internat'l Airport
St. Paul, MN 55111-3075
612-726-2111 (phone)
612-726-0622 (fax)

Polar Air Cargo

100 Oceangate, 15th Floor
Long Beach, CA 90802
310-436-7471 (phone)
310-624-2740 (fax)

Reeve Aleutian Airlines

4700 West Internat'l Airport Road
Anchorage, AK 99502-1091
907-243-1112 (phone)
907-249-2317 (fax)

Southwest Airlines

P.O. Box 36611
Love Field
Dallas, TX 75235-1625
214-904-4000 (phone)
214-792-4011 (fax)

United Airlines

P.O. Box 66100
Chicago, IL 60666-0100
847-700-4000 (phone)
847-700-7347 (fax)

United Parcel Service

55 Glen Lake Parkway, NE
Atlanta, GA 30328
404-828-6238 (phone)
404-828-6619 (fax)

US Airways

2345 Crystal Drive
Crystal Park 4
Arlington, VA 22227
703-418-7000 (phone)
703-418-7304 (fax)

Associate Members**Aeromexico**

Reforma 445 "A", 12 Piso
Calle Cuauhtemoc, 06500
Mexico City, DF, Mexico
+52-5-327-4000 (phone)
+52-5-511-5359 (fax)

Air Canada

P.O. Box 14000
Air Canada Center
St Laurent, Quebec
Canada H4Y 1H4
514-422-5000 (phone)
514-422-5799 (fax)

Air Jamaica

72-76 Harbour Street
Kingston, Jamaica
876-922-3460 (phone)
876-967-3125 (fax)

KLM - Royal Dutch Airlines

Amsterdamseweg 55
Schiphol Airport
1182 GP Amstelveen
The Netherlands
+31-20-649-9123 (phone)
+31-20-649-3001 (fax)

Mexicana Airlines

P.O. Box 12-813
Av. Xola 535
Piso 28, 03100
Mexico City, DF, Mexico
+52-5-227-0260 (phone)
+52-5-523-2364 (fax)