



U.S. Department
of Transportation

Research and
Special Programs
Administration

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

APPROVAL CA-9709009 (Second Revision)
ISSUED BY THE COMPETENT AUTHORITY OF THE UNITED STATES

EXPIRATION DATE: June 30, 2004

1. **APPROVAL HOLDER:** Mine Safety Appliances Company
Pittsburgh, PA
2. **REGULATORY AUTHORITY:** 49 CFR § 172.102(c)(1), Special
Provision 60 - Approval of chemical oxygen generators for
transportation.
3. **SYNOPSIS:** Mine Safety Appliances Company is authorized to
offer for transportation chemical oxygen generators as
"Oxygen generator, chemical, UN3356" in accordance with the
provisions of this approval.
4. **BASIS:** This approval is issued in response to Mine Safety
Appliances Company's application of August 22, 1997 and
revised on June 16, 1999.
5. **PERIOD OF VALIDITY AND CONDITIONS OF APPROVAL:** This
approval does not provide relief from any requirements of
the Hazardous Materials Regulations except as stated herein.
This approval is valid until June 30, 2004 or until
terminated by the Associate Administrator for Hazardous
Materials Safety.
 - a. **Approved Materials:** Oxygen generators and protective
breathing equipment that are authorized by the Associate
Administrator to be described as "Oxygen generator,
chemical, 5.1, UN3356" may be transported under the terms of
this approval.
 - b. **Safety Controls:**
 - (1) Oxygen generator, other than protective breathing
equipment, must incorporate one of the following means
of preventing inadvertent actuation:
 - (a) Mechanically Actuated Devices:

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(i) Two pins, installed so that each is independently capable of preventing the actuator from striking the primer.

(ii) One pin and one retaining ring, each installed so that each is independently capable of preventing the actuator from striking the primer.

(iii) A cover securely installed over the primer and a pin installed so as to prevent the actuator from striking the primer and cover.

(b) Electrically Actuated Devices: The electrical leads must be mechanically shorted and the mechanical short must be shielded in metal foil.

(c) Devices with No Means of Actuation Attached: Devices that have no actuating mechanism must have a protective cover over the primer to prevent actuation from external impact.

(2) Oxygen generators installed in protective breathing equipment (PBE): A finished PBE (Oxygen generator, hood, etc) must be placed in a protective bag, pouch, case or cover that fully encloses the PBE in such a manner that prevents unintentional actuation of the oxygen generator.

c. Testing: Oxygen generator, without packaging, must be capable of withstanding a 1.8 meter drop onto a rigid, non-resilient, flat and horizontal surface, in the position most likely to cause damage, with no loss of contents or actuation.

d. Preparing Packages for Transportation by Motor Vehicle, Rail Freight, and Cargo Vessel:

(1) Oxygen generators, oxygen generators installed in equipment, or PBEs must be packaged in accordance with § 173.212 or ATA Specification No. 300 - Packaging for Airline Supplies, published by the Air Transport Association of America;

(2) If an oxygen generator is inside a piece of equipment which is sealed or difficult to determine if

an oxygen generator is present, for example - a closed sealed passenger service unit, then a warning sign must be visible attached to the piece of equipment stating "THIS ITEM CONTAINS AN OXYGEN GENERATOR"; and

(3) Each package, and overpack if used, must be plainly marked with the approval number and the following statement:

**THIS PACKAGE IS NOT AUTHORIZED FOR TRANSPORTATION
ABOARD AIRCRAFT**

e. Preparing Packages for Transportation by Cargo Aircraft:

(1) Oxygen generators, oxygen generators installed in equipment, or PBEs must be packaged in accordance with 49 CFR § 173.212 or Packaging for Airline Supplies - ATA Specification No. 300, published by the Air Transport Association of America;

(2) If an oxygen generator is inside a piece of equipment which is sealed or difficult to determine if an oxygen generator is present, for example - a closed sealed passenger service unit, then a warning sign must be visible attached to the piece of equipment stating "THIS ITEM CONTAINS AN OXYGEN GENERATOR";

(3) Each package must meet the following additional requirements when a generator in the package is actuated:

(a) Other generators in the package may not actuate;

(b) The packaging materials may not ignite; and

(c) The outside surface temperature of the package may not exceed 100°C; and

(4) Each package, and overpack if used, must be plainly marked with the approval number and the following statement in close proximity to the cargo only aircraft label:

**THIS PACKAGE IS NOT AUTHORIZED FOR TRANSPORTATION
ABOARD AIRCRAFT IF IT HAS BEEN OPENED**

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6. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, and cargo aircraft only.
7. SPECIAL PROVISIONS:
- a. A copy of this approval must be maintained at each facility from which shipments of oxygen generators are offered for transportation under the terms of this approval.
- b. Any person who receives a package covered by this approval may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this approval and the HMR.
- c. If a package that was prepared for transportation by cargo aircraft is opened subsequent to its offering for transportation, then that package, if otherwise unaltered, may only be transported by surface modes. Any marking or label (including a "Cargo Aircraft Only" label) indicating it may be offered for transportation by air must be removed or covered.
8. GENERAL PROVISIONS:
- a. Failure by any person to comply with the terms and conditions of this approval and the Hazardous Materials Regulations, 49 CFR Parts 171-180, may result in the suspension or revocation of that person's authority to use this approval. Failure to comply may also subject that person to penalties prescribed by 49 U.S.C. § 5123 and 5124. This approval may be modified, suspended or terminated in its entirety if that action is justified in light of changes in circumstances, including additional information not available when this approval was issued. Unless immediate modification, suspension or termination is necessary to avoid imminent material harm to person or property, before action is taken, that person will be notified and provided with an opportunity to show why the proposed action should not be taken.
- b. Each "Hazmat employee", as defined in 49 CFR § 171.8, who performs a function subject to this approval must be provided training on the requirements and conditions of this approval in addition to the training required by 49 CFR §§ 172.700 through 172.704.

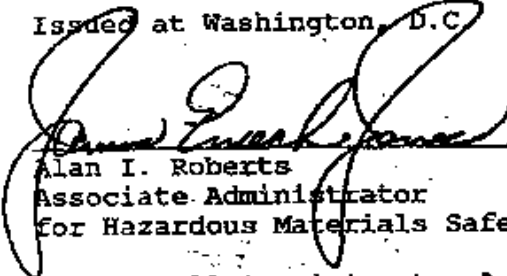
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9. **Application for Renewal:** Each application for renewal of an approval must:
- a. Be submitted to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration to the attention of the Office of Approvals, DHM-32;
 - b. Identify by number the approval for which renewal is requested;
 - c. State the name, street and mailing addresses, and telephone number of the applicant; if the applicant is not an individual, state the name, street and mailing addresses, and telephone number of an individual designated as an agent of the applicant for all purposes related to the application;
 - d. Include a certification by the applicant that the original or revised approval, remains accurate and complete.
 - e. Include a statement describing all relevant shipping and incident experience in connection with the approval since its issuance or most recent renewal.
 - f. If at least 60 days before an existing approval expires the holder files an application for renewal that is complete and conforms to the requirements of this section, the approval will not expire until final administrative action on the application for renewal has been taken.

Issued at Washington, D.C.

JUL 15 1999



Alan I. Roberts
Associate Administrator
for Hazardous Materials Safety

(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-32

Dist: FAA
PO: RDT(99)