



Designation: F3315 – 18

Standard Guide for Training of Abandoned or Inactive Mine Search and Rescue Team Member¹

This standard is issued under the fixed designation F3315; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This guide establishes the minimum training required for personnel who take part in search and rescue (SAR) operations in abandoned or inactive mines.

1.2 An abandoned or inactive mine search and rescue team member will be able to perform all general land search and rescue functions.

1.3 An abandoned or inactive mine search and rescue team member is not trained for SAR operations in surface mines, tunnels, or caves.

1.4 This guide applies to underground mines only. It does not apply to surface mines, tunnels, or caves.

1.5 This guide does not apply to search and rescue operations on, or in, bodies of water within abandoned or inactive mines.

1.6 In accordance with Classification **F1993**, an abandoned or inactive mine search and rescue team member shall be classified as part of any of the following resources:

1.6.1 *Category*—Land search.

1.6.1.1 *Kind*—Non-wilderness;

1.6.1.2 *Kind*—Wilderness;

1.6.1.3 *Duration*—12 h.

1.6.2 *Category*—Land rescue and land search and rescue.

1.6.2.1 *Kind*—Non-wilderness;

1.6.2.2 *Kind*—Wilderness;

1.6.2.3 *Duration*—12 h.

1.6.3 *Category*—Rope rescue crew (or team).

1.6.3.1 *Kind*—Non-wilderness;

1.6.3.2 *Kind*—Wilderness;

1.6.3.3 *Duration*—12 h.

1.7 Other training may be required before an endorsed abandoned or inactive mine search and rescue team member can fully participate as part of a particular category and kind of team or crew, based on specific local needs, regulations, or policies.

¹ This test method is under the jurisdiction of ASTM Committee **F32** on Search and Rescue and is the direct responsibility of Subcommittee **F32.03** on Personnel, Training and Education.

Current edition approved April 1, 2018. Published May 2018. DOI: 10.1520/F3315-18.

1.8 This guide has references specific to use in the United States of America, but it may be adapted for use in other countries.

1.9 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.10 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:

F1773 Terminology Relating to Climbing, Mountaineering, Search and Rescue Equipment and Practices

F1993 Classification System of Human Land Search and Rescue Resources

F2209 Guide for Training of Land Search Team Member

F2751 Guide for Training of a Land Search and Rescue Team Member

F2752 Guide for Training for Level I Rope Rescue (R1) Rescuer Endorsement

F2890 Guide for Hazard Awareness for Search and Rescue Personnel

F3068 Guide for Contents and Use of a Position Task Book (PTB)

F3222 Terminology Relating to F32 Land Search and Rescue Standards and Guides

2.2 Other Documents:

NWCG PMS 307 Work Capacity Testing for Wildland Firefighters²

Title 30 of the Code of Federal Regulations (30 CFR)³ Chapter I, Subchapter H, Part 49, Mine Rescue Teams

² An electronic copy of the publication is available at: <https://www.nwcg.gov/sites/default/files/publications/pms307.pdf>

³ Available from U.S. Government Printing Office, Superintendent of Documents, 732 N. Capitol St., NW, Washington, DC 20401-0001, <http://www.access.gpo.gov>.

Title 42 of the Code of Federal Regulations (42 CFR)³ Chapter I, Subchapter G, Part 84, Subpart H, Self-Contained Breathing Apparatus

Title 42 of the Code of Federal Regulations (42 CFR)³ Chapter I, Subchapter G, Part 84, Subpart O, Closed-Circuit Escape Respirators

3. Terminology

3.1 Acronyms:

- 3.1.1 *AHJ*—Authority Having Jurisdiction.
- 3.1.2 *CCER*—Closed-Circuit Escape Respirator.
- 3.1.3 *CFR*—Code of Federal Regulations.
- 3.1.4 *IDLH*—Immediately Dangerous to Life or Health.
- 3.1.5 *MSHA*—Mine Safety and Health Administration.
- 3.1.6 *NPS*—National Park Service.
- 3.1.7 *NWCG*—National Wildfire Coordinating Group.
- 3.1.8 *OSHA*—Occupational Safety and Health Administration.
- 3.1.9 *PPE*—Personal Protective Equipment.
- 3.1.10 *PTB*—Position Task Book
- 3.1.11 *SAR*—(1) Search and Rescue; (2) Supplied Air Respirator.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *abandoned mine, n*—a mine is considered abandoned if there is no identifiable owner or operator for the facility, or if the facility has reverted to federal ownership.⁴

3.2.2 *closed circuit breathing apparatus, n*—system for providing breathable air in which the exhalation is rebreathed by the wearer after the carbon dioxide has been effectively removed and a suitable oxygen concentration restored from a source of compressed, chemical, or liquid oxygen. Also known as a *rebreather*. **42 CFR 84.70**

3.2.3 *closed-circuit escape respirator (CCER), n*—self-contained closed circuit breathing apparatus, worn by the user, which provides breathable air to the user, allowing the user to escape from a location with an IDLH atmosphere. Also referred to as *self-rescue unit*, *self-contained self-rescuer (SCSR)*, emergency escape breathing device (EEBD), emergency escape breathing apparatus (EEBA), escape cylinder, or escape bottle.

3.2.4 *inactive mine, n*—a mine is considered to be inactive if there is an identifiable owner or operator of the facility but the facility is not currently operating and there are no approved authorizations or permits to operate.⁴

3.2.5 *IDLH, n*—Immediately Dangerous to Life or Health; an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere. **29 CFR 1910.134 (b)**

3.2.6 *open circuit breathing apparatus, n*—a breathing apparatus, worn by the user, which provides breathable air from a compressed air supply, exhausting exhaled air outside the system.

3.2.7 *supplied air respirator, n*—a partial or full face mask that provides breathable air to the user via a hose from an external source.

3.3 Refer to Guides **F1993**, **F2209**, **F2751**, **F2752** and Terminologies **F1773** and **F3222** for definitions of search and rescue terms used in this guide.

4. Significance and Use

4.1 This guide establishes a minimum standard for training of abandoned or inactive mine SAR team members as it relates to their general, field, and abandoned or inactive mine search and rescue specific knowledge. No other advanced skills are included or implied.

4.2 Every person who is identified as an abandoned or inactive mine SAR team member shall have met the requirements of this guide.

4.3 Certain specialized environments may require other capabilities or endorsements or further training depending on the regulations and policies of the AHJ.

4.4 Abandoned or inactive mine SAR team members trained as defined in this guide shall not be assumed to possess adequate field skills or knowledge to make mission-critical decisions. Abandoned or inactive mine SAR team members are qualified to perform SAR operations in abandoned or inactive mines under qualified supervision designated by the incident commander in accordance with AHJ policies.

4.5 This guide is an outline of the topics required for training or evaluating abandoned or inactive mine SAR Team Members. It may, however, be used to assist in the development of, or to complement, a complete training document or program.

4.6 This guide can be used to evaluate a training document or program to determine if its content includes the topics necessary for training an abandoned or inactive mine SAR team member.

4.7 This guide does not stand alone and must be used with the referenced documents to identify the knowledge, skills, and abilities required of an abandoned or inactive mine SAR team member.

4.8 Because SAR operations in and around abandoned or inactive underground mines are inherently hazardous, regional and national safety standards shall be included in the policies and procedures of the AHJ.

4.9 Practitioners shall complete all activities based on a sound analysis of risk versus benefit, and shall follow all federal, tribal, state, provincial, local, regional, and other safety standards which apply to SAR operations in abandoned or inactive mines.

4.10 This guide by itself is not a training document. It is an outline of the topics required for training or evaluating an abandoned or inactive mine SAR team member.

⁴ Montana Bureau of Mines and Geology, Environmental Assessment, <http://www.mbgm.mtech.edu/env/env-abdmines.asp#mines>