

§ 173.58 Assignment of class and division for new explosives.

(a) *Division 1.1, 1.2, 1.3, and 1.4 explosives.* In addition to the test prescribed in §173.57 of this subchapter, a substance or article in these divisions must be subjected to Test Methods 6(a), 6(b), and 6(c), as described in the UN Manual of Tests and Criteria (IBR, see §171.7 of this subchapter), for assignment to an appropriate division. The criteria for assignment of class and division are as follows:

- (1) Division 1.1 if the major hazard is mass explosion;
- (2) Division 1.2 if the major hazard is dangerous projections;
- (3) Division 1.3 if the major hazard is radiant heat or violent burning, or both, but there is no blast or projection hazard;
- (4) Division 1.4 if there is a small hazard with no mass explosion and no projection of fragments of appreciable size or range;
- (5) Division 1.4 Compatibility Group S (1.4S) if the hazardous effects are confined within the package or the blast and projection effects do not significantly hinder emergency response efforts; or
- (6) Not in the explosive class if the substance or article does not have significant explosive hazard or if the effects of explosion are completely confined within the article.

(b) *Division 1.5 explosive.* Except for ANFO, a substance that has been examined in accordance with the provisions §173.57(a) of this subchapter, must be subjected to the following additional tests: Cap Sensitivity Test, Princess Incendiary Spark Test, DDT Test, and External Fire Test, each as described in the Explosive Test Manual. A material may not be classed as a Division 1.5 explosive if any of the following occurs:

- (1) Detonation occurs in the Cap Sensitivity Test (Test Method 5(a));
- (2) Detonation occurs in the DDT Test (Test Method 5(b)(ii));
- (3) An explosion, evidenced by a loud noise and projection of fragments, occurs in the External Fire Test (Test Method 5(c), or
- (4) Ignition or explosion occurs in the Princess Incendiary Spark Test (Test Method 5(d)).

(c) *Division 1.6 explosive.* (1) In order to be classed as a 1.6 explosive, an article must pass all of the following tests, as prescribed in the Explosive Test Manual:

- (i) The 1.6 Article External Fire Test;
- (ii) The 1.6 Article Slow Cook-off Test;
- (iii) The 1.6 Article Propagation Test; and
- (iv) The 1.6 Article Bullet Impact Test.

(2) A substance intended for use as the explosive load in an article of Division 1.6 must be an extremely insensitive detonating substance (EIDS). In order to determine if a substance is an EIDS, it must be subjected to the tests in paragraphs (c)(2)(i) through (c)(2)(x) of this section, which are described in the Explosive Test Manual. The substance must be tested in the form (i.e., composition, granulation, density, etc.) in which it is to be used in the article. A substance is not an EIDS if it fails any of the following tests:

(i) The Drop Weight Impact Sensitivity Test;

(ii) The Friction Sensitivity Test;

(iii) The Thermal Sensitivity Test at 75 °C (167 °F);

(iv) The Small Scale Burning Test;

(v) The EIDS Cap Test;

(vi) The EIDS Gap Test;

(vii) The Susan Test;

(viii) The EIDS Bullet Impact Test;

(ix) The EIDS External Fire Test; and

(x) The EIDS Slow Cook-off Test.

(d) The Associate Administrator may waive or modify certain test(s) identified in §§173.57 and 173.58 of this subchapter, or require additional testing, if appropriate. In addition, the Associate Administrator may limit the quantity of explosive in a device.

(e) Each explosive is assigned a compatibility group letter by the Associate Administrator based on the criteria prescribed in §173.52(b) of this subchapter.

[Amdt. 173–224, 55 FR 52617 Dec. 21, 1990, as amended at 56 FR 66267, Dec. 20, 1991; 63 FR 52849, Oct. 1, 1998; 66 FR 45379, Aug. 28, 2001; 68 FR 75743, Dec. 31, 2003]