



# TENANT DIRECTIVE

**BWI:** 803.1  
**DATE:** Revised August 18, 2006  
**DISTRIBUTION:** A

**TITLE:** **EXPLOSIVE SHIPMENTS**

## **I. REFERENCES**

- A. Code of Maryland Regulations, 11.03.01.03-1, Dangerous Articles.
- B. Code of Maryland Regulations, 29.06.01, Fire Prevention Code.
- C. National Fire Protection Association, NFPA 495, Manufacture, Transportation, Storage and Use of Explosive Materials (Chapters: 1, 3, 4, 7, 8, and 11).
- D. Code of Federal Regulations 49 CFR 390-397, Transportation of explosives by motor carriers.
- E. Code of Federal Regulations 29 CFR 1926.902 Surface transportation of explosives.
- F. U.S. DOT Hazardous Materials Regulations Title 49 CFR, part 173.50.
- G. This Directive supersedes BWI Tenant Directive 803.1, dated August 6, 1986.

## **II. DEFINITIONS**

- A. *Explosive* - For the purposes of this subchapter, an *explosive* means any substance or article, including a device, which is designed to function by explosion (i.e., an extremely rapid release of gas and heat) or which, by chemical reaction within itself, is able to function in a similar manner even if not designed to function by explosion, unless the substance or article is otherwise classed under the provisions of this subchapter. The term includes a pyrotechnic substance or article, unless the substance or article is otherwise classed under the provisions of this subchapter.

**B.** Explosives in Class 1 are divided into six divisions as follows:

1. Division 1.1 - Consists of explosives that have a mass explosion hazard. A mass explosion is one, which affects almost the entire load instantaneously.
2. Division 1.2 - Consists of explosives that have a projection hazard but not a mass explosion hazard.
3. Division 1.3 - Consists of explosives that have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard.
4. Division 1.4 - Consists of explosives that present a minor explosion hazard. The explosive effects are largely confined to the package and no projection of fragments of appreciable size or range is to be expected. An external fire must not cause virtually instantaneous explosion of almost the entire contents of the package.
5. Division 1.5<sup>1</sup> - Consists of very insensitive explosives. This division is comprised of substances, which have a mass explosion hazard but are so insensitive that there is very little probability of initiation or of transition from burning to detonation under normal conditions of transport.
6. Division 1.6<sup>2</sup> - Consists of extremely insensitive articles that do not have a mass explosive hazard. This division is comprised of articles containing only extremely insensitive detonating substances and which demonstrate a negligible probability of accidental initiation or propagation.

[Amdt. 173–224, 55 FR 52617 Dec. 21, 1990, as amended at 56 FR 66267, Dec. 20, 1991; 66 FR 45183, Aug. 28, 2001; 68 FR 48569, Aug. 14, 2003]

**C.** Magazine - A storage structure or container specifically designed and certified for the storage of explosive materials. This structure or container prevents unauthorized access to explosive materials and reduces their deterioration through proper storage and ventilation.

**D.** Airport - Maryland Aviation Administration and the directors and managers having authority of its operation.

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<sup>1</sup> The probability of transition from burning to detonation is greater when large quantities are transported in a vessel.

<sup>2</sup> The risk from articles of Division 1.6 is limited to the explosion of a single article.

### III. PROCEDURES

#### A. Storage

1. The storage of transient explosives at the Airport is prohibited to insure that the infrastructure and public safety are in no way compromised. The Airport does recognize that transient shipments may get delayed for a number of reasons, and if this should occur, the following procedures shall be followed:
  - a. The truck or aircraft carrying the explosives shall be moved to a safe and secure location acceptable to the Airport<sup>3</sup>. This location shall be isolated, yet practical, to allow movement easily and quickly. The storage of explosives shall not exceed 48 hours. After 48 hours, the explosives shall either be loaded and en route to the final destination, or returned to the originating location.
  - b. The location shall be secured and then guarded by one of the carriers whom have the appropriate Airport security clearance. The person performing guard duty shall enforce the following safety rules:
    - 1) Smoking, carrying lighted matches, open flames, spark-producing devices, and fire arms (except firearms carried by authorized personnel) are prohibited from entering the immediate area or within 50-feet of the truck or aircraft.
    - 2) Have the ability to contact the Airport emergency number (410-859-7222) in the event of an emergency.
2. In the event these storage procedures cannot be followed, the only option is for the explosives to be stored in a magazine. The magazine shall be provided by and the sole responsibility of the shipper or freight forwarding company. The Airport does not provide magazine facilities for cargo use. If a portable magazine is to be used, it shall be on location within four hours. The magazine shall be placed at an approved location to ensure public safety and may be inspected by the State Fire Marshal Bomb Squad or Airport Fire Marshal after being placed and loaded with explosive materials. The following chart provides examples for the proper storage of some types of explosives:

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<sup>3</sup> The Airport has the authority to designate the location for, and limit the quantity of, explosive materials that are loaded, unloaded, reloaded, or temporary retained at any facility or location within the jurisdiction.

**Magazine Type**

	1	2	3	4	5
<b>Examples of Explosive Materials</b>					
High Explosives (Class 1, Division 1)	X	X	X		
Low Explosives (Class 1, Division 3)	X	X	X	X	
Class A Detonators (Class 1, Division 1)	X	X	X		
Detonating Cords (Class 1, Division 1)	X	X	X		
Class C Detonators (Class 1, Division 4)	X	X	X	X	
Safety Fuses, Electric Squibs, Igniters and Igniter cords (Class 1, Division 4)	X	X	X	X	
Blasting agents (Class 1, Division 5)	X	X	X	X	X

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**NOTE:** Detonators must not be stored in the same magazine with other explosives.

- a. Magazines shall be in the charge of a competent person at all times who shall be at least 21 years old or a member of the armed services, and who shall be responsible for the enforcement of all safety precautions.
- b. Magazine doors shall be kept locked, except during the time of placement and removal of stocks of explosives or during inspection.
- c. Safety rules governing the operation of magazines shall be posted on the interior of the magazine door.
- d. Smoking, carrying lighted matches, open flames, spark producing devices, and firearms (except firearms carried by authorized guards) are prohibited inside or within 50 feet of magazines.

**B. Travel**

The travel route of trucks or aircraft on Airport property or Air Operations Area shall be predetermined and pre-approved between the carrier and Airport.

**C. Operations**

- 1. Explosive materials that are loaded, unloaded, and transferred shall be done under the supervision of personnel familiar with the safe handling of explosive materials. The following requirements shall be followed:

<sup>4</sup> NFPA 495 Explosive Materials Code 2006 Edition, Table 9.3.1(a) Construction Features of Magazines

- a. The location for loading and unloading shall be predetermined and pre-approved between the freight forwarding company, air carrier, and Airport. The locations shall be determined based on the types of explosives, weight, and separation distances in accordance with table 8.4.1 of NFPA 495.<sup>5</sup>
- b. Fueling and de-fueling of the aircraft shall not be performed during loading and unloading operations.
- c. Aircraft engines shall not be operational during loading and unloading operations.
- d. Loading and unloading during electrical storms are prohibited.
- e. Explosive material storage in cargo buildings and aircraft hangars are prohibited.
- f. Smoking, carrying lighted matches, open flames, spark producing devices, and firearms (except firearms carried by authorized guards or police personnel) are prohibited in the loading and unloading area.
- g. Fire extinguishers shall be located in the immediate loading and unloading area. Fire extinguishers located on trucks, loaders, or aircraft satisfy this requirement.
- h. No attempt shall be made to fight a fire that cannot be contained or controlled before it reaches explosive materials. In such cases, all personnel shall be evacuated immediately to a safe location.
- i. All personnel involved in loading and unloading operations shall be made aware of the Airport's emergency number for Airport Fire Rescue (410-859-7222), Police (410-859-7042), and they shall also know the location of phones or radios to initiate an emergency call if required.

**D. Notification Procedures**

1. At least 12-hours prior to the scheduled arrival of an aircraft or truck shipment, the carrier or freight forwarding company responsible shall notify the Airport Operations Center at 410-859-7018. All applicable information pertaining to the shipment including dates, times, manifest,

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<sup>5</sup> See table at the end of this directive

ground carrier and air carrier information, and any special information shall be made available.

2. Airport Operations shall notify the Airport Fire Prevention Division (410-859-7815) and provide them with applicable information so Special Use Permits can be issued to all applicable carriers and freight forwarding companies by the Airport Fire Marshal. The Airport Fire Rescue Department’s Deputy Chief of Operations or designee will develop an incident action plan to mitigate a possible fire or detonation associated with issued permits.
3. Airport Operations shall notify Airport Police and Airport Security as applicable.
4. Airport Operations shall notify Federal Aviation Administration Hazardous Materials and Dangerous Goods Division at 703-661-0503 (day) 718-553-3100 (night).
5. For over 2,500 pounds of explosives, refer to NFPA 495 Chapter 8. All areas on Airport will be considered unbarricaded.

Quantity of Explosives		Distances (in Feet)							
		Inhabited Buildings		Public Highways class A to D		Passenger railways - public highways with traffic volume of more than 3,000 vehicles per day		Separation of magazines	
Pounds		Barricaded	Unbarricaded	Barricaded	Unbarricaded	Barricaded	Unbarricaded	Barricaded	Unbarricaded
over	not over								
0	5	70	140	30	60	51	102	6	12
5	10	90	180	35	70	64	128	8	16
10	20	110	220	45	90	81	162	10	20
20	30	125	250	50	100	93	186	11	22
30	40	140	280	55	110	103	206	12	24
40	50	150	300	60	120	110	220	14	28
50	75	170	340	70	140	127	254	15	30

75	100	190	380	75	150	139	278	16	32
100	125	200	400	80	160	150	300	18	36
125	150	215	430	85	170	159	318	19	38
150	200	235	470	95	190	175	350	21	42
200	250	255	510	105	210	189	378	23	46
250	300	270	540	110	220	201	402	24	48
300	400	295	590	120	240	221	442	27	54
400	500	320	640	130	260	238	476	29	58
500	600	340	680	135	270	253	506	31	62
600	700	355	710	145	290	266	532	32	64
700	800	375	750	150	300	278	556	33	66
800	900	390	780	155	310	289	578	35	70
900	1,000	400	800	160	320	300	600	36	72
1,000	1,200	425	850	165	330	318	636	39	78
1,200	1,400	450	900	170	340	336	672	41	82
1,400	1,600	470	940	175	350	351	702	43	86
1,600	1,800	490	980	180	360	366	732	44	88
1,800	2,000	505	1,000	185	370	380	760	48	90

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**ELECTRONIC COPY  
ORIGINAL ON FILE IN AIRPORT OPERATIONS**

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== Denotes changes

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<sup>6</sup> NFPA 495 Explosive Materials Code, 2006 Edition, Table 9.4.1(b) The American Table of Distances for Storage of Explosives