Republic of Latvia

Cabinet
Regulation No. 33
10 January 2012

Procedures for Storage by a Merchant of the Military Ammunition, Military Pyrotechnics, Military Explosives and Explosive Devices Referred to in the Common Military List of the European Union

Issued pursuant to
Section 5, Paragraph eight of
Law On the Circulation of Goods of Strategic Significance

I. General Provisions

1. This Regulation prescribes:
   1.1. the procedures for storage of the ammunition of military firearms referred to in the Common Military List of the European Union (hereinafter – ammunition) and the requirements for ammunition warehouses;
   1.2. the procedures for storage of the military pyrotechnics referred to in the Common Military List of the European Union (hereinafter – pyrotechnics) and the requirements for pyrotechnics warehouses;
   1.3. the procedures for storage of the military explosives and explosive devices referred to in the Common Military List of the European Union (hereinafter – explosives and explosive devices) and the requirements for warehouses of explosives.

2. A merchant shall store ammunition, pyrotechnics, explosives and explosive devices in a specially arranged warehouse, the address of which is indicated in the special permit (licence) for commercial activities with the goods referred to in the Common Military List of the European Union, in accordance with the requirements of this Regulation.

3. Prior to commencing operation of warehouses for ammunition, pyrotechnics, explosives and explosive devices, upon receipt of a respective application of the merchant they shall be inspected by specialists of a unit of the State Fire and Rescue Service and the State Police.

4. The merchant shall store ammunition, pyrotechnics, explosives and explosive devices in conformity with the requirements of the laws and regulations governing fire safety, as well as according to the instruction for storage by the manufacturer, so that they would not fall into hands of unauthorised persons.

5. The following documentation shall be present in a warehouse for ammunition, pyrotechnics, explosives and explosive devices:
   5.1. an instruction for storage of ammunition, pyrotechnics, explosives and explosive devices developed by the manufacturer;
   5.2. an instruction developed by the merchant for action in case of an accident;
   5.3. a list attached in a visible place, in which the number of cabinets, strongboxes and metal boxes and the other items, which are in the warehouse, is indicated.
6. A warehouse for ammunition, pyrotechnics, explosives and explosive devices shall be equipped with an automated fire detection and alarm system and a security alarm system, which automatically transmit an alarm or damage signal to the central security panel of the security merchant.

7. Warehouses for ammunition, pyrotechnics, explosives and explosive devices shall conform to the following additional fire safety requirements:
   7.1. a warehouse to be newly erected, renovated, reconstructed and restored is a structure of U1 fire resistance level;
   7.2. the minimum reaction to fire class of the building constructions of the warehouse is A2-s1, d0;
   7.3. the floor covering is spark resistant;
   7.4. the warehouse has lightning protection;
   7.5. regardless of the area there are at least two portable fire extinguishers in the warehouse, the minimum capacity of which is six kilograms, and one portable fire extinguisher, the minimum capacity of which is 20 kg;
   7.6. it is prohibited to smoke and use open flame in the warehouse, as well as to use devices, tools, instruments, and other objects, as a result of use of which sparks may occur.

II. Procedures and Restrictions for Storage of Ammunition

8. A merchant shall store ammunition in a specially arranged ammunition warehouse (hereinafter – storage facility), which conforms to the following requirements:
   8.1. the storage facility has no windows, and it is isolated from other auxiliary rooms and service rooms;
   8.2. the durability of external walls of the room is equivalent to reinforced concrete walls that are 200 mm thick or brick external walls, which are at least 510 mm thick, the durability of ceiling is equivalent to reinforced concrete coverings, the durability of floor is equivalent to concrete floors, which are at least 200 mm thick, the durability of internal walls, which separate the ammunition storage facility from other rooms, is equivalent to brick walls, which are at least 380 mm thick;
   8.3. if any of the construction structures of the storage facility (wall, ceiling, floor) does not conform to the requirements referred to in Sub-paragraph 8.2 of this Regulation, it must be secured with a welded steel grating in the whole area from inside the room;
   8.4. the storage facility is equipped with double doors and prying-safe locks. The external door is made of a metal frame with covering metal sheets, which are at least 3 mm thick. The total thickness of the door is at least 40 mm. At least two internal locks (one – with multi-lever locks) are installed in external door. Internal door is made of steel gratings. Internal door may be locked with one internal lock and secured in a way that it may be stamped with a metal seal or numbered with a disposable adhesive safety tape;
   8.5. gratings for securing internal doors and construction structures are made of steel rods, the diameter of which is at least 16 mm. Rods are welded at each crossing point forming square nests, the dimension of which does not exceed 150 x 150 mm. Frames of grate doors are made of 45 x 45 angle iron, and they are at least 5 mm thick. Doorsets and additional fastening gratings of non-capital walls are fixed in using rods in diameter from 12 to 16 mm, which are driven into the wall after every 700 mm in depth of 80-100 mm. The doorset structure and gratings are welded thereto, each – in at least eight places;
   8.6. if the diameter of an aperture for ventilation exceeds 100 mm and engineering gaps exceed 200 mm, a steel grating with a square nest, the dimension of which does not exceed 100 x 100 mm, is installed.
9. Ammunition shall be stored in the storage facility in metal cabinets (metal boxes) or in the original packaging separately from weapons.

III. Procedures and Restrictions for Storage of Pyrotechnics

10. A pyrotechnics warehouse shall be located in a safe distance from residential houses, public buildings and structures, as well as explosive objects, forests and State main motorways (hereinafter – objects to be protected). The smallest distance from a pyrotechnics warehouse to the State main motorways shall be 40 m, and to other objects to be protected – 30 m.

11. Safe distance to objects to be protected shall be calculated, using the following formula:

\[ R = 6, 4 \sqrt{Q}, \]  

where

- \( R \) – safe distance (m);
- \( Q \) – propellant mass of the pyrotechnics present in the warehouse (kg).

12. Safe distance to the State main motorways shall be calculated, using the following formula:

\[ P = 4, 3 \sqrt{Q}, \]  

where

- \( P \) – safe distance (m);
- \( Q \) – propellant mass of the pyrotechnics present in the warehouse (kg).

13. A pyrotechnics warehouse shall conform to the following requirements and conditions:

13.1. the warehouse is built in a way that in case of an explosion harm would not be caused outside the warehouse or the shock wave of explosion would be conducted in safe direction (usually – upwards);

13.2. the durability of the external wall of the warehouse in the direction of objects to be protected is equivalent to an external brick wall, which is at least 510 mm thick, and the durability of such internal wall, which separates the warehouse from other rooms, is equivalent to a brick wall, which is at least 380 mm thick;

13.3. windows of the warehouse, which are located on the sunny side, are painted over, tinted, covered, or otherwise secured in order to prevent sunlight. The warehouse is dry and well-ventilated, its floor and walls are even and appropriate for wet cleaning;

13.4. electrical ignitors are located in a room, which is separated from the pyrotechnics warehouse, or in a pyrotechnics warehouse in a separate metal cabinet or box.

14. Water, vapour, oil or air heating shall be used for heating a pyrotechnics warehouse. The heating surfaces used shall be easy to clean, the external surface temperature shall not exceed 60 °C. Pyrotechnics shall be placed in a distance no less than 0.5 m from heating devices.

15. Pyrotechnics and its packagings shall be stored separately from one another or on shelves so that they would not deform. There shall be racks, at least 5 cm in height, on the floor under boxes of pyrotechnics, the distance of a stack from the wall shall be at least 10 cm.

16. Stacks of pyrotechnics without pallets shall be of such height so that in taking boxes it is not necessary to use a ladder. The largest height of a stack when creating it by hands shall be two metres. Boxes shall be placed in a stack or shelf so that the writings on the packaging are visible. The distance between stacks and shelves shall be such that it is possible to carry the boxes freely. The distance shall be no less than one metre.
17. Also industrial goods of other type (except oxidising, extremely flammable and flammable substances and materials) may be stored in a pyrotechnics warehouse separately from pyrotechnics.

**IV. Procedures and Restrictions for Storage of Explosives and Explosive Devices**

18. The territory of a warehouse for explosives and explosive devices shall conform to the following requirements:
   18.1. the territory is fenced off (the fence is at least two metres high) in order to restrict access of third parties into the territory of the warehouse;
   18.2. the distance from the fence to the warehouse is at least 20 m;
   18.3. warehouses for explosives and explosive devices, premises of security guard posts, and premises for placement of fire safety inventory may be located in the territory.

19. Such distance between warehouses for explosives and explosive devices shall be ensured, which precludes transmission of detonation from one warehouse to another.

20. The distance \( r_d \), which precludes transmission of detonation from one warehouse for explosives and explosive devices to another, shall be calculated, using the following formula:

\[
r_d = K_d \sqrt[3]{Q} \times 4\sqrt{D}[m],
\]

where

- \( r_d \) – the distance, which precludes transmission of detonation from one warehouse for explosives and explosive devices to another (m);
- \( K_d \) – coefficient, which depends on the type of explosives or explosive devices (Annex);
- \( Q \) – mass of explosives or explosive devices in the warehouse (kg);
- \( D \) – the smallest width of a stack of explosives or explosive devices in the other warehouse for explosives or explosive devices (m).

21. If explosives of different types are stored in a warehouse for explosives and explosive devices, then the distance, which precludes transmission of detonation from one warehouse for explosives and explosive devices to another, shall be calculated on the basis of explosives with a higher coefficient \( K_d \).

22. Such distance shall be deemed safe distance, which exceeds the distance calculated in accordance with Paragraph 20 of this Regulation.

23. If the actual distance calculated in accordance with Paragraph 20 of this Regulation between warehouses for explosives and explosive devices is smaller, the merchant shall ensure the creation of earthwork.

24. Earthwork shall be created only from plastic materials in bulk so that earthwork is at least 0.5 m higher than the highest point of the warehouse for explosives and explosive devices, and the base of the earthwork is no closer than one metre from the wall of the warehouse, ensuring free access to the warehouse. The highest point of earthwork shall be at least one metre in width.

25. A warehouse for explosives and explosive devices shall conform to the following requirements:
   25.1. the entrance in the warehouse is equipped with double doors and prying-safe locks. The doors are even, easy to clean, from non-absorbent material;
25.2. it is prohibited to store explosives and explosive devices in the attic rooms;
25.3. if the warehouse has windows, they are built in a way to prevent accumulation of dirt and are easy to clean. The window panes, which are on the sunny side, are covered with a material blocking sunlight. The proportion of the window surface versus floor are is from 1:25 to 1:30;
25.4. the warehouse is ensured with a ventilation system, which is installed in a way not to endanger the storage of explosives and explosive devices;
25.5. the rooms, in which issuance of explosives and explosive devices is intended during the dark hours of the day, are equipped with lighting devices intended for use in an explosive environment and with an emergency lighting. Electrical wires are installed in metal or plastic pipes, ensuring protection of wires against mechanical damages;
25.6. the structure is equipped with an earth wire, protection against lightning is ensured;
25.7. the rooms are arranged in a way to ensure storage of detonators separately from explosives.

26. Explosives and explosive devices shall be stored in a warehouse in such conditions, which do not deteriorate their quality and preclude their falling into hands of unauthorised persons. Explosives and explosive devices shall be stored according to the instruction for use developed by the manufacturer.

27. There shall be racks, at least 5 cm in height, on the floor under packagings of explosives and explosive devices; the distance of a stack from the wall shall be at least 10 cm. The largest height of a stack shall be two metres. If packagings of explosives and explosive devices are on shelves, the height of the stack is not limited.

28. The width of a stack of explosives and explosive devices shall not exceed two packagings. The packaging shall be placed in a stack so that the writings on the packaging are visible. The distance between stack shall be such that packagings can be freely carried, however, it may not be less than one metre.

29. A warehouse for explosives and explosive devices shall be located in a safe distance from residential houses, industrial objects, and buildings of public access. The length of the dangerous zone shall be calculated according to the following procedures:
29.1. the length of the dangerous zone for a warehouse for explosives and explosive devices with earthwork shall be calculated, using the following formula:

\[ R = 15 \sqrt[3]{Q} \text{, where} \]

R – the length of the dangerous zone (m);
Q – mass of explosives in the warehouse (kg);

29.2. the length of the dangerous zone for an open warehouse for explosives and explosive devices shall be calculated, using the following formula:

\[ R = 30 \sqrt[3]{Q} \text{, where} \]

R – the length of the dangerous zone (m);
Q – mass of explosives in the warehouse (kg).
30. A warehouse for explosives and explosive devices shall be in a safe distance from motorways. The length of the dangerous zone near motorways shall be calculated, using the following formula:

\[ R = 9 \sqrt[3]{Q} \], where

\( R \) – the length of the dangerous zone (m);
\( Q \) – mass of explosives in the warehouse (kg).

V. Closing Provision

31. In relation to merchants, which have received a special permit (licence) for commercial activities with the goods referred to in the Common Military List of the European Union prior to the day of coming into force of this Regulation:

31.1. the requirements of this Regulation for storage of pyrotechnics shall be applied from 1 July 2012;
31.2. the requirements of this Regulation for storage of explosives and explosive devices shall be applied from 1 January 2013.

Prime Minister V. Dombrovskis
Minister for Defence A. Pabriks

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Significance of Coefficient $K_d$ in Calculating Safe Distance for Transmission of Detonation

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<th>No.</th>
<th>Mass of active explosive</th>
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<tr>
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