

## **EXPLOSIVES**

The Department of Mines through its offices in Gaborone and Francistown monitors handling and use of explosives throughout the country. In accordance with the Explosives Act, Cap 24:02, the inspectorate division of the Department of Mines issues permits and licences for importation, manufacturing, transportation, purchase, possession, storage and use of explosives. To ensure compliance with the Explosives Act, Cap 24:02 and the regulations made there under, the inspectors of explosives carry out inspections of the plants where explosives are manufactured and the sites like mines, quarries, civil construction sites, etc. where explosives are used or handled.

To be able to acquire these permits and licences, the person who will be handling or using the explosives must have a valid Botswana blasting licence relating to the operation he intends to use the explosives for. Dealing in fireworks/crackers does not require that one possesses a blasting licence; however, to handle or use fireworks, the person has to acquire an authorization from Department of Mines, and there are certain requirements that such person has to adhere to while handling or using fireworks.

### **PERMITS AND LICENCES**

To acquire a licence, permit or an authorisation, one has to make an application as per the requirements of the Explosives Act with the prescribed fee to the Department of Mines. After receiving an application for a licence or a permit, an inspector of explosives conducts appropriate examinations or inspections depending upon the type of permit or licence to be issued. If the inspection or examination reveals that everything is in accordance with the Explosives Act ,Cap.24:02, the licence, permit or authorization is issued.

#### **The prescribed fees: -**

- |  |         |
|--|---------|
| • Permit to import and possess explosives (Form B):          | Nil     |
| • Licence to manufacture explosives (Form C) – mobile plant: | P50.00  |
| • Licence to manufacture explosives (Form C)– fixed plant:   | P100.00 |
| • Permit to carry explosives in bulk (Form D):               | Nil     |
| • Explosives magazine licence (Form E):                      | P2.00   |

- Authorisation for box storage (Form G): Nil
- Permit to purchase, acquire and possess explosives (Form G): Nil
- Licence to sell explosives (Form I): P2.00
- Blasting licence (Form K): P2.00
- Restricted blasting licence (Form M): P0.50
- Authorisation to store ammonium nitrate: Nil
- Authorisation to deal with fireworks: Nil
- Authorisation to use fireworks: Nil

**THE GENERAL PROCEDURE FOLLOWED FOR DIFFERENT PERMITS AND LICENCES IS OUTLINED BELOW.**

**1. Permit to Import and Possess Explosives**

The application is made in "Form A" . On receiving an application it is examined that the applicant complies with the following requirements:

If the applicant is an individual, he must be the holder of a valid Botswana blasting licence required for the operation the permit for which he/she has applied for. If the applicant is a company, it must have in its employment a number of persons holders of valid Botswana blasting licences required for the operation the permit for which the company has applied for. The number of blasting licence holders that the company requires in its employment must be according to size and extent of the blasting work the company intends to carry out..

The applicant must have licensed explosives storage facility for the quantities the applicant is required to import at a time.

The applicant must have licensed transport facility for explosives.

The applicant must have a definite purpose to use explosives with a proof for it.

The above requirements are not applicable for an applicant for importing and possessing fireworks in Botswana; however, certain conditions which are required to deal with fireworks are required to comply with such an applicant.

If the applicant complies with the above requirements, he is issued with a permit to import and possess explosives for a certain period but in no case beyond the last day of the year for which the permit has been issued.

It is very important to note that this permit grants two permissions to the applicant that is permission for importation of explosives/fireworks and permission for possession of explosives/fireworks; therefore, with expiration of the permit both the permissions end. Therefore, the applicant must import only such quantities of explosives that the applicant can consume/sell up to the date of expiry of the permit.

## **2. Licence to Manufacture Explosives**

There is no prescribed form for the application for a licence to manufacture explosives. A written request accompanied by the duplicate copies of the plans and sections of the proposed manufacturing plant along with the proposed safety standards and precautionary measures to be observed at the plant is required to be made.

If the plans and sections contain all required information and the given information complies with the requirements of the Explosives Regulations, Cap 24:02, the plans and sections are approved and a copy of each approved plan and section is returned to the applicant. The applicant must start construction of the magazine only after he has received the copies of the approved plans and sections. The applicant must start construction only after he has received the copies of duly approved plans and sections.

On completion of construction of the plant, the applicant must make a written request to the Chief Inspector of Explosives for issuing a licence to manufacture explosives. On receiving the request, an inspector inspects the plant to ascertain that the plant has been constructed according to the approved plans and sections. A licence to manufacture explosives is issued to the applicant if the plant has been constructed according to the approved plans and sections,

For a mobile manufacturing unit (MMU), a licence to manufacture explosives is issued to an applicant if the MMU complies with safety standards.

### **3. Permit to Carry Explosives in Bulk**

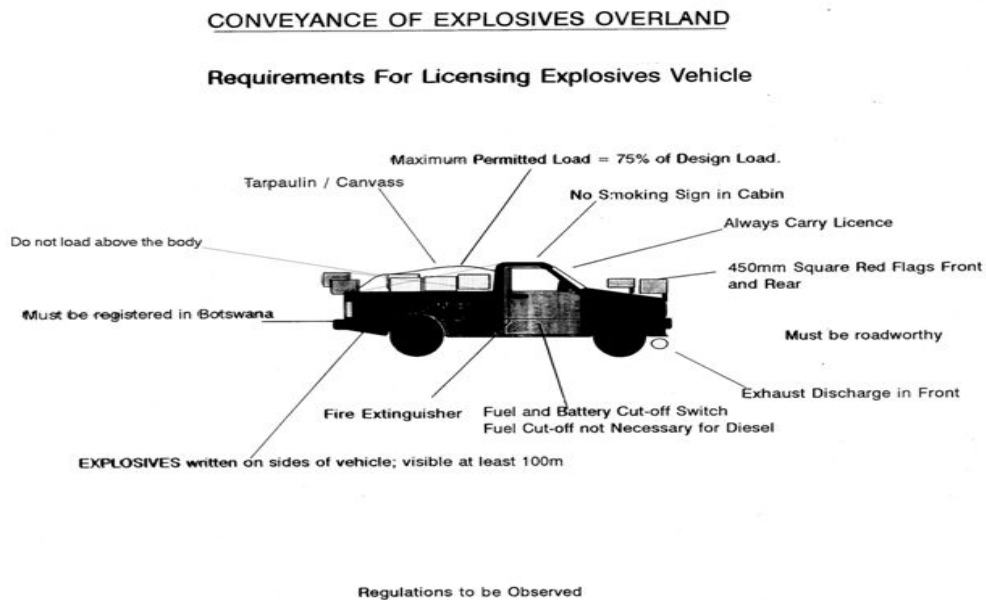
There is no prescribed application form for the application for a permit to carry explosives in bulk. A written request is required to make. The explosives vehicle is inspected for its safe carrying of explosives and roadworthiness. A permit to carry explosive in bulk for a vehicle is issued to the applicant if the vehicle comply with the following requirements:

- i. The vehicle must have the driver's cabin distinctly separate from the load compartment.
- ii. The exhaust system must discharge at the front lower part of the vehicle or at the front side part if the load compartment is closed.
- iii. The inside of the loading compartment (floor and sides) must be aluminium or lined with wood or rubber, such that no ferrous metal surface is exposed or can come into contact with cases or cartons of explosives.
- iv. Diesel engine powered vehicles must be fitted with a battery isolation switch, in a conspicuous location inside the driver's cabin. This switch must be labelled and within easy reach of the driver from his seat.
- v. Petrol engine powered vehicles must, in addition to (4) above, be fitted with a fuel cut-off switch similarly located.
- vi. A portable, serviceable fire extinguisher must be conveniently located such that the driver may use it if necessary.
- vii. For open load compartment vehicles a waterproof canvas or tarpaulin must be provided to cover and secure the contents during transportation.
- viii. A "**NO SMOKING**" sign must be posted inside the driver's cabin, on the panel where the driver and the ONE passenger can both see it.
- ix. The label "**EXPLOSIVES**" must be written in red letters against a white background on the sides, rear and front of the vehicle, to be legible from at least a hundred-meter distance.
- x. Once licensed, the vehicle must always carry the licence.
- xi. Explosives Regulations 1970, Numbers 21, 22, 23, 24, 25, 26 and 27 (2) must also be observed.

xii. The maximum licensed capacity of the vehicle is seventy-five (75%) of the maximum recommended weight of the load.

xiii. The vehicle must be inspected and certified roadworthy by the Department of Mines, explosives inspector.

xiv. The vehicle must be registered in Botswana.



#### 4. Explosives Magazine Licence

There is no prescribed form for the application for a magazine licence. A written request accompanied by duplicate copies of the following plans and sections of the proposed magazines is required to be made.

- Location plan (the plan should show that the location of the magazine complies with the requirements of safety distances given in the Third Schedule of the Explosives Regulations, Cap 24:02)
- Layout plan
- Specification plan and section/s

If the plans and sections contain all information and the given information comply with the requirements of the Explosives Regulations, Cap 24:02, the plans and sections are duly approved by the Chief Inspector of Explosives and a copy of each approved plan and section is returned to the applicant. The applicant must start construction of the magazine only after he has received the copies of the approved plans and sections.

On completion of construction of the magazine, the applicant must make a written request to the Chief Inspector of Explosives for issuing a magazine licence. On receiving the request, an inspector inspects the magazine to ascertain that it has been constructed according to the approved plans and sections. A magazine licence is issued to the applicant if the magazine has been constructed according to the approved plans and sections,

**Requirements of explosive magazines plans are as follows:**

- I. The following plans are required to be submitted in duplicate to the Chief Inspector of Explosives in order to seek approval under regulation 49 (2), Cap 24: 02
  - Location plan,
  - Layout plan
  - Specification plan
- II. All plans submitted must be drawn to scale. The plans should be drawn on a statutory scale of 1/500, 1/1000, 1/1500, 1/2000, 1/5000, or other reasonable multiples or fractions of these scales. The scale chosen must be such that the size of the plan is reasonable.
- III. For authentication of the plans, each plan must be signed as follows:
- IV. In case of individual: by the owner
- V. In case of a mine or quarry: by the mine/quarry manager with company stamp
- VI. In case of a company other than a mine or quarry: by the manager of the company who is responsible for explosives activities of the company with company stamp
- VII. Every plan must contain the following

- VIII. Name of the owner, Title of the drawing, Drawing Number, North direction (except the specification plan), Proper labels, Legend if necessary
- IX. In case of a portable magazine that was licensed before, indicate the assigned magazine number, capacity and specification number. For new portable magazine of James Sidney design, it is essential to quote the capacity and specification number.
- X. In the case of a permanent magazine, a stacking plan is also required together with the capacity evolving from such stacking arrangement.
- XI. Specification plans for fence, lightning arrestor, earth mounds and other items may be drawn as inserts on the layout plans if there is no separate specification plan.
- XII. All surface objects must be shown on the site and location plans.
- XIII. All dimensions on the site plan, location plan and layout plan must be in meters.
- XIV. All dimensions on a specification plan must be in millimetres.
- XV. The position of the signage as required by regulations 52 and 61(2) must be shown on the respective plan.
- XVI. The position of fire extinguisher/s and lightening conductor/s must be shown on the layout plan.
- XVII. Unless if the site is within a mining lease area, plans must be accompanied by proof from relevant land allocation authorities/leaser that the land has been given for the purpose of magazine erection

## **5. Authorization for Box Storage**

The box is inspected for safe storage of explosives before issuing authorization. The authorization is given in "Form F" and can be issued by an Assistant Inspector of Explosives (Regulations 67 and 68).

## **6. Permit to Purchase, Acquire and Possess Explosives**

An application for a permit to purchase, acquire and possess explosives is made on a form prescribed by the Department of Mines. On receiving the application it is examined that the applicant complies with the following requirements:

If the applicant is an individual, he must be the holder of a valid Botswana blasting licence required for the operation the permit for which he/she has applied for. If the applicant is a company, it must have in its employment a number of persons holders of valid Botswana blasting licences required for the operation the permit for which the company has applied for. The number of blasting licence holders that the company requires in its employment must be according to the size and extent of the blasting work the company intends to carry out.

- i) The applicant must have licensed storage facility for the quantities the applicant is required to possess at a time to prevent frequent transportation of explosives.
- ii) The applicant must have licensed transport facility for explosives.
- iii) The applicant must have a definite purpose to use explosives with a proof of it.

The above requirements are not applicable for an applicant for purchasing or acquiring fireworks; however, certain conditions which are required to deal with fireworks are required to comply with such an applicant.

If the applicant complies with the above requirements, he is issued with a permit to import and possess explosives for a certain period but in no case beyond the last day of the year for which the permit has been issued.

It is very important to note that this permit grants two permissions to the applicant: permission for purchasing or acquisition of explosives/fireworks and permission for possession of explosives/fireworks; therefore, with the expiration of permit both the permissions end. Therefore, the applicant must purchase or acquire only such quantities of explosives/fireworks that the applicant can consume/sell up to the date of expiry of the permit.

## **7. Licence to Sell Explosives**

Before issuing this licence, it has to be ensured that the applicant has licenced storage and transport facility for explosives. It is also necessary that either the applicant himself is a BLH or

there is a BLH in his employment. The licence is issued on "Form I" and it can only be given by Chief Inspector of Explosives. (Regulation 72)

## **8. Authorization to Store Ammonium Nitrate**

The procedure is same as that for a magazine licence.

### **Special Conditions for Ammonium Nitrate Storage**

Ammonium nitrate for blasting purposes shall be kept locked in a store exclusively reserved and licensed for the purpose.

- I. No store shall be licensed for the storage of ammonium nitrate unless it has been certified by the applicant that the construction of the building has been carried out in accordance with these regulations
- II. Plans, site plans and specifications of the proposed store shall be submitted in triplicate for the approval of the Chief Inspector of Explosives prior to any construction being commenced.
- III. For the purpose of the storage of ammonium nitrate on half of the distances specified for Classes B and C in the Third Schedule of the Explosives Regulations 1970 shall be applicable, the distances specified for Class A shall remain unaltered.
- IV. Except when exempted in writing by the Chief Inspector of Explosives the construction of the store shall be in accordance with the following:-
  - (a) The floor shall be of smooth concrete 15cms thick with a slight inclination downwards towards the door.
  - (b) The walls shall be of masonry or concrete at least 20 centimetres thick and 2.25 metres in height.
  - (c) The roof shall be of lightweight construction e.g. aluminium or cement asbestos sheets on metal over the walls.
  - (d) A space shall be provided for ventilation of at least 15cms between the top of the walls and the roofing sheets, this space to be closed in with expanded metal.

- (e) No drainage or ventilation openings shall be at the floor level, and no open drains shall connect to pipes.
- (f) The door and door frame shall be of metal.
- (g) The door shall be provided with a six-lever deadlock.
- (h) No timber or similar material shall be used in the construction.
- (i) There shall be no window in the store, but 'paxit' roof sheets may be fitted in the roof.
- (j) There shall be no ceiling to the store.

V. No smoking, open lights or flames shall be permitted in any store containing ammonium nitrate.

VI. The store shall be kept clean, dry and well ventilated.

VII. A plentiful supply of water shall be available as a precaution in the event of a fire.

VIII. The area shall be kept clear of vegetation, dry grass, rubbish and combustible material for a distance of 10 metres.

IX. The area shall be fenced and warning notices posted.

X. The ammonium nitrate shall be stored packed in the original containers as supplied by the manufacturer.

XI. The ammonium nitrate shall be stored in stacks not more than 2 metres in width and 5 metres in length.

XII. Each stack of sacks shall contain not more than 10 metric tonnes of ammonium nitrate, and be not more than 10 sacks in height.

- XIII. A space of at least one metre shall be between the top of the sacks and the eaves of the roof beams.
- XIV. Aisles at least one metre wide shall be between each stack of sacks and between the stacks and the walls of the store.
- XV. No loose ammonium nitrate shall be permitted; any spillage shall be cleaned up immediately and dissolved in an access of water.
- XVI. Damaged sacks shall be kept clean slip-over bags, an adequate supply of which shall be kept available for the purpose.
- XVII. There shall be no electrical wiring or heating apparatus in the store.
- XVIII. No other material(s) than ammonium nitrate shall be kept in the store.
- XIX. The owner of ammonium nitrate shall at all times take reasonable precautions to prevent the material falling into the possession of unauthorised persons.
- XX. No store shall contain more than 50 metric tonnes of ammonium nitrate, except with the written authority of the Chief Inspector of Explosives.
- XXI. A register shall be kept showing the receipts and issues of ammonium nitrate and a quarterly return shall be submitted as under regulation 40 of the Explosives Regulations, 1970.

## **9. Requirements for Dealing in Fireworks**

The holder shall:

- have the necessary permits and licences for each of his/her establishments/shops/wholesalers dealing in fireworks.
- have all the valid original permits and licences for firecrackers posted at the storage place/wholesaler/shop.
- keep fireworks at a safe distance from flammable materials.

- ensure that no person carries a naked light, matches, or any substance likely to cause fire or an explosion while near fireworks.
- ensure that no person smokes in the vicinity of fireworks.
- make provisions for at least one charged fire extinguisher to be kept in a readily accessible position near the storage place/shelf.
- follow any precautions or directions written on the labels of the fireworks.
- ensure that no unlabelled fireworks are sold to the public.
- ensure that no fireworks are sold to children under the age of 16 years.
- remove old/expired fireworks from shelves for destruction.
- comply with any instruction issued by an Inspector of Explosives regarding safe handling and use of fireworks.
- without derogating from any other written law, immediately notify the Chief Inspector of Explosives of any accident resulting from fireworks in his establishment/business.

A licence or permit issued will be revoked on contravention of any of the requirements or conditions specified above.

These directions are issued under "Explosives Act, Cap 24:02", Regulations 6 and 7.