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ས་རིག་དང་ས་གཞིར་ལས་ཁུངས་ ཐེམ་ཕུག།  
Department of Geology and Mines  
Ministry of Economic Affairs  
Royal Government of Bhutan  
Thimphu



MDD-31/DGM/2022/1669

9<sup>th</sup> September, 2022

## NOTIFICATION

The Department of Geology and Mines (DGM) would like to notify the public that the *Guidelines for Short Term Quarries 2022* is hereby adopted for implementation w.e.f. 9<sup>th</sup> September 2022.

The Guidelines is prepared in line with the provisions of Mines and Minerals Management Act 1995 and Section 35 of the Mines and Minerals Management Regulations 2022.

Therefore, all the government agencies or proprietors of a licensed firm or a company are hereby notified to comply with the provisions of this Guidelines. Henceforth, the lease of Short Term Quarries shall be processed and carried out strictly in line with the Guidelines. The Guidelines can be downloaded from the download section of the Ministry's website, [www.moea.gov.bt](http://www.moea.gov.bt)

(Phuntsho Namgyal)  
Director

### Copy to:

1. Hon'ble Tengye Lyonpo, MoEA, Thimphu, for kind information;
2. Dasho Secretary, MoEA, Thimphu, for kind information;
3. Chief Geologist, GMD, DGM for information and compliance;
4. Offtg. Chief Engineer, MDD, DGM for information and compliance;
5. Offtg. Chief Engineer, Mining Division, DGM for information and compliance;
6. Regional Coordinators, Regional Offices, DGM for information and compliance.

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# **Guidelines for Short Term Quarries**

## **2022**

Department of Geology and Mines

Ministry of Economic Affairs

*Signature*

## TABLE OF CONTENTS

INTRODUCTION	1
CHAPTER 1 - SHORT TERM QUARRY	1
Definitions	1
Eligibility	2
Clearances	2
Standards of Short Term Quarry	2
Obligation of Short Term Quarry permit holder	3
CHAPTER 2 - APPLICATION PROCEDURES	3
Renewal of Short Term Quarry Permit	4
CHAPTER 3 - OPERATION OF THE SHORT TERM QUARRY	4
Compliance Monitoring	4
Reporting	5
Suspension of the Permit	5
Termination of the Permit	5
Annex I - Application for Short Term Quarry	6
Annex II – Format and Standards of Basic Development Plan	8
Annex III - Permit for Short Term Quarry	11

*R. M. M.*

## INTRODUCTION

Construction aggregates and building stones are an essential material for the development and maintenance of infrastructure development. The suitability of aggregates and building stones for a particular purpose depends principally on their physical and mechanical properties, although for some applications mineralogical or chemical properties are also important.

Aggregates and building stones make essential part of the most widely used construction material - concrete, which is vital for many other purposes in transport infrastructural, hydropower project construction, commercial and residential building, and other building projects. They are widely distributed with a range of potential sources and, while a low-cost product, are used in very large quantities. Primary aggregates are produced from naturally occurring geological resources, extracted through quarrying specifically for use as aggregates.

Since these construction materials are critical for timely completion of a project, it is of utmost importance that the project is able to source the required quantity and quality from a reliable source of its own or from an existing licensed supplier. A lease of quarry through a normal leasing process would require at least about one and half years with multiple clearances and report requirements. Therefore, in line with the section 35 of the Mines and Minerals Management Regulations 2022, the Department is hereby adopting the Guidelines for Short Term Quarries to fast track the lease processes for a non-commercial quarry allocated in the interest of expediting time bound projects of national priority, where supply of raw materials is not available within the locality to cater the requirement.

## CHAPTER 1 - SHORT TERM QUARRY

### Definitions

1. **“Short Term Quarry”** means a non-commercial quarrying activity allocated in the interest of expediting time bound projects of national priority, where supply of raw materials is not available within the locality to cater the requirement.
2. **“Guideline”** means the “Guidelines for Short Term Quarries 2022”
3. **“Department”** means the “Department of Geology and Mines”
4. **“Permit”** means the “Permit for Short Term Quarry”

5. “**BDP**” means “Basic Development Plan which shall comprise of operational and environment management plan”
6. “**OHS**” means “Occupational Health and Safety”

### **Eligibility**

7. A government agency or proprietor of a licensed firm or a company on a recommendation letter issued by the concerned government agency shall be eligible for a permit to operate a Short Term Quarry.
8. The eligibility of a project meriting Short Term Quarry are as follows:
  - (1) Construction/renovations of historical monuments such as Dzongs, lhakhangs, stupas, etc.;
  - (2) Hydropower projects;
  - (3) Infrastructure development works such as roads, bridges, hospitals, schools, etc.; and
  - (4) Other construction related works of government undertaking which require specific grades and types of construction materials.
9. The Short Term Quarry permit holder shall not be eligible to operate more than two short term quarries at any instant.
10. A proprietor of a licensed firm or a company shall be eligible to obtain a permit for Short Term Quarry in addition to two mining or quarrying leases.

### **Clearances**

11. The Permit for Short Term Quarry shall require Forestry Clearance, Environmental Clearance and the Land Lease Certificate.

### **Standards of Short Term Quarry**

12. The permissible area for the Short Term Quarry shall not exceed 10 acres.
13. The period of the Short Term Quarry shall not exceed the time period of the approved project or 5 years including the renewal period, whichever is less.
14. The construction materials extracted from the Short Term Quarry shall be used solely in the construction of the intended project(s), and shall not be commercialised.

## **Obligation of Short Term Quarry permit holder**

15. The Short Term Quarry permit holder shall:
  - (1) carry out quarrying operations as per the terms and conditions of the Permit;
  - (2) ensure scientific quarrying operation as per the approved BDP;
  - (3) not sublet the Permit to a third party;
  - (4) pay Royalty and mineral rent at the rate prescribed by law;
  - (5) adopt proper OHS in the quarry;
  - (6) deposit Environmental Restoration Bond calculated as per Annex 4 of the Mines and Minerals Management Regulations 2022; and
  - (7) restore the area in line with the Mines Restoration Guidelines.

## **CHAPTER 2 - APPLICATION PROCEDURES**

16. A government agency or proprietor of a licensed firm or a company with recommendation letter issued by the concerned government agency shall apply for the Short Term Quarry to the Department as prescribed in Annex I of this Guideline along with the following:
  - (1) an approval of the project activity from the concerned agency; and
  - (2) recommendation letter from concerned government agency stating the urgency and priority of the construction materials.
17. The Department shall scrutinize and accept the application upon fulfilment of all the obligations specified under this Guideline.
18. The Project Proposal and Review Committee (PPRC) of the Department shall review the application within 5 working days.
19. On assessing the eligibility for the Short Term Quarry by the PPRC, the Department shall provide the response letter to the applicant within three working days.
20. The applicant shall submit the pre-feasibility study report prepared by the geologist and mining engineer to the Department.
21. The Department shall review the pre-feasibility study report within 5 working days and conduct site verification within 2 weeks, if necessary.

22. The Department shall seek the Administrative Approval from the concerned Dzongkhag Administration for the feasible sites within three working days.
23. The Department shall seek the Forestry Clearance from the Department of Forest and Park Services (DoFPS) for feasible sites within three working days.
24. In the event of a site being assessed as unfeasible for quarrying, the Department shall inform the applicant in writing within three working days.
25. The applicant shall submit a BDP to the Department prepared by a mining engineer as per Annex II of this Guideline for approval.
26. The Department shall forward the approved BDP along with the IEE Form and public clearance to the National Environment Commission Secretariat (NECS) for issuance of Environment Clearance.
27. Upon obtaining Environmental Clearance, the Department shall request the National Land Commission Secretariat (NLCS) for issuance of a Land Lease Certificate (LLC).
28. The Department shall issue the Permit for Short Term Quarry as prescribed in Annex III of this Guideline within 2 working days on receipt of the LLC from the NLCS.

### **Renewal of Short Term Quarry Permit**

29. A Short Term Quarry permit holder shall apply for the renewal of the Permit to the Department in Annex I of this Guideline before 6 months of expiry of the Permit if the initial permit was granted for less than 5 years.
30. The Department may renew the permit for the Short Term Quarry based on the feasibility, renewal of the clearances and the project time period, and upon fulfilment of requirement under Section 16 of this Guideline.

## **CHAPTER 3 - OPERATION OF THE SHORT TERM QUARRY**

### **Compliance Monitoring**

31. The concerned Regional Office shall carry out the following monitoring activities:
  - (1) inspect the requisite permit for transport of materials;
  - (2) conduct monitoring to ensure compliance to terms and conditions of the Permit, Forestry Clearance and Environmental Clearance;

- (3) issue Transport Permit for despatch of materials;
- (4) ensure that quarry operation, management and mitigation work are carried out as per the approved BDP; and
- (5) monitor and report on the restoration work at the end of the operation.

### **Reporting**

32. The permit holder of the Short Term Quarry shall submit a half-yearly report as per section 106 of the Mines and Minerals Management Regulations 2022.
33. The permit holder of the Short Term Quarry shall submit the annual report as per section 107 of the Mines and Minerals Management Regulations 2022.

### **Suspension of the Permit**

34. The Department shall suspend the part or whole of the Permit area on the following grounds:
  - (1) in case of serious and imminent threat to human health or the environment caused by non-compliance to the Terms and Conditions of the Permit or Clearances thereof;
  - (2) upon receipt of the information on the suspension of any required clearance from the concerned authorities; or
  - (3) if the permit holder fails to comply with the notices issued by the Department.
35. The Department shall lift the suspension order upon obtaining valid clearances or compliance with the notification.

### **Termination of the Permit**

36. The Department may terminate the Permit on the following grounds:
  - (1) if the permit holder breaches the Terms and Conditions of the Permit and clearances or the provision(s) of MMMA 1995 and MMR 2022; or
  - (2) if any of the clearances is revoked by the concerned authority.
37. Upon termination, the permit holder shall be required to fulfil the environmental restoration and other Terms and Conditions of this Guideline, where relevant.





For Official Use	
Application ID No.	
Date Received	
Responsible Officer	

**Annex I - Application for Short Term Quarry**

**APPLICANT DETAILS** (fields with \* signs are mandatory)

Name of the licensed firm or company or government agency*			
Postal Address*			
Telephone No.*		Mobile No. *	
Email address *			

**SHORT DESCRIPTION OF THE PROPOSED SHORT TERM QUARRYING ACTIVITY**

Type of materials/products*					
Type of quarrying proposal*	New		Renewal		
Period of permit requested*					
Land ownership*	SRF (acre)		Private (acre)		Total (acre)

**LOCATION OF THE PROPOSED SHORT TERM QUARRYING ACTIVITY**

Place*		Nearest village*	
Gewog*		Dzongkhag*	
Geographical Coordinates*	Latitude:	° ' " N	Longitude: ° ' " E

*Handwritten signature*

**DECLARATION**

*I hereby declare that the information provided herewith are true to the best of my knowledge and in the event of false or misleading information, I shall be liable for any action under the Mines and Minerals Management Act and Regulations thereof.*

**SIGNATURE** (fields with \* signs are mandatory)

<b>Signature*</b>	<b>Applicant*</b>	<b>Witness*</b>	
	<i>Affix legal stamp</i>	<b>Name*</b>	
		<b>CID No.*</b>	
		<b>Contact Details*</b>	
<b>Date*</b>			
<b>Place:</b>			

**Required documents to be attached:**

<i>Sl. No.</i>	<i>Appendices (fields with * signs are mandatory for new application)</i>	<i>Appendix No.</i>	<i>Tick (✓) mark if enclosed</i>
1	Location Map with proposed boundary*	<b>A</b>	
2	Approval of the project activity from the concerned government agency*	<b>B</b>	
3	Copy of business license or certificate of incorporation in case of licensed firm or registered company*	<b>C</b>	
4	Written consent for use of private land from land owner (if applicable)	<b>D</b>	
5	Recommendation letter issued by the concerned government agency justifying the need and urgency of Short Term Quarry*	<b>E</b>	

## **Annex II – Format and Standards of Basic Development Plan**

The Basic Development Plan (BDP) shall be prepared as per the format and the requirements prescribed below:

### **1. Project summary**

The project summary shall include following:

- a. Purpose of the Short Term Quarry
- b. Details of the operator
  - i. Name:
  - ii. License Number/Company Registration Number:
  - iii. Postal Address:
  - iv. Contact Number:
- c. Location of the Quarry
  - i. Location/Village:
  - ii. Gewog:
  - iii. Dungkhag:
  - iv. Dzongkhag:
- d. Leasehold area
  - i. SRF in acres:
  - ii. Private registered land in acres:
- e. Geological reserve:
- f. Mineable reserve:
- g. Manpower requirements:

### **2. Geology and reserve**

- Description of the topography, vegetation, drainage, etc.;
- Brief description of the geology and the reserves and grade of the deposit; and
- Geological map and sections showing necessary geological features.

### **3. Quarry Development**

The quarry development shall include the following information:

- pit boundary and land usage;
- access road to the quarry area;

- pre-production development works including jungle & bush clearance and bench preparation to expose the deposit;
- management of top-soil and overburden dump yards;
- establishment of infrastructure which include plant and machinery, office and labour camps; and
- ancillary facilities such as power, water, transport facility within and beyond the quarry boundary, etc.

#### **4. Quarry design parameters**

Provide the following quarry design parameters:

- bench configuration;
- blast parameters;
- waste dump;
- final pit configuration, etc.

#### **5. Quarry production planning**

- Description of the method of operation;
- Year-wise working and production plan giving details of quantity, grade and specification of construction material extracted.

#### **6. Quarry plan drawings**

The plans shall include:

- location map in an appropriate scale showing pre-quarrying land use in and around the quarrying area and demarcation line of private and SRF land and the index map showing the location of the proposed quarry;
- layout plans (in a scale not less than 1:2500) showing quarry boundary, pit boundary, infrastructure set-up, access road, locations of topsoil/overburden dumps, explosives magazine, etc.;
- cross-sections at suitable intervals not exceeding 100 metres, along the actual slope of topography with clear plotting of different litho-types;
- pre-production development plans;
- year-wise configuration of the quarrying pit shown on plans and all cross-sections;
- year-wise configuration of the waste disposal site;
- ultimate pit configuration on plan and different cross-sections.

#### **7. Environmental Management Plan**



### ***Waste Disposal planning***

- describe in detail the management and treatment of waste, configuration of waste dump and its stability.

### ***Impact, mitigation measures and management***

- The report shall mention the associated impacts to land, water, air and biodiversity due to the operation of the quarry and propose adequate mitigation measures.

### ***Quarry restoration and closure***

- Description of any progressive restoration works to be carried out;
- The report shall contain a brief description on the post quarrying closure for the quarry. The report shall be in line with the Mine Restoration Guidelines 2021.

### ***Environmental Restoration Bond (ERB)***

- Details of ERB including estimation of the amount shall be in line with Annex 4 of the MMR 2022.

### **8. Occupational Health and Safety (OHS)**

- Provide details of the OHS requirements in the quarry.

### **9. Cost and expenditures**

- Provide capital costs such as cost of equipment and machinery, infrastructure and quarry development costs, working capital, etc.
- Provide operational costs such as salary, wages, fuel, etc.

## Annex III - Permit for Short Term Quarry

Permit No.:

Date:

Application Number:

### Permit for Short Term Quarry

#### 1. Details of the permit holder

- a. Name:
- b. CID/License No.:
- c. Postal Address:

#### 2. Details of Permit

*a. Mineral (s):*

*b. Location:*

Place:

Gewog:

Dzongkhag:

*c. Area (acres):*

*d. Period:*

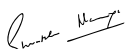
Start date:

End date:

Duration:

#### 3. Permit Terms and Condition

- (1) To ensure that all the work in the approved area is carried out diligently and strictly in accordance with the provisions of the Mines and Minerals Management Act 1995, Mines and Minerals Management Regulations 2022 and this Guideline;
- (2) To operate the quarry in line with the Basic Development Plan approved by the Department;
- (3) To quarry, lift and despatch construction materials permitted from the approved area only;



- (4) To pay the Royalty and Mineral rent at the prescribed rate in advance;
- (5) To deposit ERB at the prescribed rate in advance to the joint ERB Account number .....
- (6) To produce a copy of revenue receipts of Royalty and Mineral rent payment, and ERB deposit receipt to the concerned Regional Office of the Department;
- (7) To transport the construction materials with a valid Transport Permit issued by the Department;
- (8) To not sublet or contract out the Permit to any other person;
- (9) To keep in the site office copies of all plans, reports, clearances and shall produce the same on demand by the inspection team of the Department;
- (10) To comply with OHS specified under the Labour and Employment Act of Bhutan 2007;
- (11) To comply with terms and conditions of the Forestry Clearance and Environmental Clearance;
- (12) To pay compensation for any loss or damage that may be caused by the quarry operation to any land or property whether belonging to the Government or to any private person. The amount of the compensation shall be determined by the relevant government agencies after taking into account the estimated cost of damage caused or likely to be caused; and
- (13) To restore the area in line with the Mines Restoration Guidelines.

(Sign & official seal)

**Chief Engineer**

**Mining Division**

**Department of Geology and Mines**

