STANDARD OPERATING PROCEDURE (SOP)
FOR SALE OF LOW-GRADE MINERALS AND/OR REJECTS FROM CAPTIVE MINES

BACKGROUND

The heterogeneous nature of mineral deposits in the country results in the generation of varying grades of minerals and other associated minerals/materials other than intended minerals while carrying out its mining operations. Further, the specific grade requirements by the mineral based industries (in terms of physical and chemical) also adds to the generation of low-grade minerals and rejects from the captive mines. Therefore, this SOP is developed to facilitate the sale of low-grade minerals and/or rejects from captive mines for optimal utilisation of mineral resources and reduce environmental impacts.

CHAPTER I
OBJECTIVE

1. The main objective of this SOP is to:

   a. Ensure optimal utilisation and management of mineral resources through facilitation of sale/export of low-grade minerals and/or rejects generated from the captive mines;

   b. Enhance verification and approval process through adoption of scientific methods and standards; and

   c. Enhance compliance monitoring and accountability of the Department and captive mine owners.

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c. Physical property test, where applicable, shall be carried out in the certified laboratory. The cost for such tests shall be borne by the captive mine owners;

d. The verification of chemical grade shall be carried out as follows:

   i. Collect random or bulk samples from the pre-designated stockyard which shall be representative to provide high confidence in the result;

   ii. Carry out chemical analysis of the samples collected in the Chemical Laboratory of the Department or certified laboratory; and

   iii. The cost for the chemical analysis shall be borne by the captive mine owner;

e. The team shall submit the verification report in the prescribed format in Annex 2 of this SOP to the Mining Division;

f. The Mining Division shall review the report in consultation with Geoscience & Mineral Division to determine the grade of the mineral and decide on the approval or rejection; and

g. The Mining Division shall submit recommendations on approval or rejection to the Director for final approval of the permit issuance.

Issuance of the Permit

6. The Department shall issue the permit as per the format prescribed in Annex 3 of this SOP.

7. The permit shall be valid for a period of 6 months.

8. The captive mine owners shall be allowed for only one permit for a specific material and quantity at a time, and shall be non-transferable.

9. The permit shall be subjected to other terms and conditions as specified in Annex 3 of this SOP.

10. The sale of the materials within the verified stock is not complete during the permit period, the captive mine owners shall apply for permit extension; and

11. The Department shall extend the permit for periods of 3 months after necessary stock validation under the same terms and conditions of the initial permit until all the balance stock is lifted.

CHAPTER III

Compliance monitoring

12. The Department shall:

a. Carry out and keep up to date report on the compliance monitoring of the sale/export of low-grade minerals and/or rejects;

b. Enhance checks and verification of conveyance carrying the permitted low grade mineral or rejects at strategic locations;

c. Carry out ad hoc highway inspection to check and verify the conveyance carrying mineral and mineral products; and

d. Carry out intelligence monitoring through data analysis of dispatch records by the Mining Division.

13. The Regional Office shall:

a. Ensure timely collection of applicable Royalty and Mineral Rent at the prescribed rates for the quantity of low-grade mineral or rejects permitted;

b. Issue the Despatch Order for the verified stock only;

c. Ensure that proper record of the despatch is maintained along with stock balance at any given point of time before the next Despatch Order is issued;

d. Issue Transport Permits after verification of the materials which are loaded from the approved stockyard;

14. The concerned Mines Inspectors shall monitor the permitted stockyard area to prevent any addition of materials by the captive mine owners.

15. Notwithstanding, Clause 14, in case if there is space constraint to stock low-grade minerals or rejects, a separate designated area shall be verified and approved by the Department.

CHAPTER IV

ROLES AND RESPONSIBILITIES

Mines Inspector

16. The concerned Mines Inspector shall be responsible for:

a. Allowing sale/export of low-grade minerals and/or rejects from the captive mines as per the Dispatch Order issued by Regional Coordinator;

b. Issuance of Transport Permits for the quantities of low-grade minerals and rejects as permitted and within the permit period;

c. Prevention of any additional materials in the verified stock;

d. Timely collection and reconciliation of applicable Royalty and Mineral Rent; and

e. Maintaining and reporting correct dispatch records along with the stock balance to the Regional Coordinator.

Regional Coordinator

17. The Regional Coordinator shall be responsible for:

a. Allowing transport of low-grade minerals or rejects through issuance of Dispatch Order in line with the permit;

b. Verifying and maintaining correct record of minerals dispatched along with the stock balance at any given point of time;

c. Taking appropriate and immediate actions on issues reported by the concerned Mines Inspector; and

d. Supervision of the Mines Inspectors on the proper conduct of his/her responsibilities in compliance monitoring for dispatch of low-grade minerals and rejects.

Verifying Team

18. The Verification Team shall be responsible for:

a. Carrying out proper stock verification;

b. Carrying out proper representative samplings for chemical grade analysis and physical property test; and

c. Submission of true verification report.

Chemical Laboratory

19. The Head of the Chemical Laboratory of the Department shall be responsible for:

a. Submission of true laboratory results to the Chief Geologist of Geoscience & Mineral Division; and

b. Carrying out proper chemical grade analysis by Chemists.

Mining Division

20. The Head of Mining Division shall be responsible for:

a. issuance of permits for low-grade minerals and/or rejects in line with this SOP and for the quantities verified by the Verification Team; and

b. deputing a team from head office to carry out ad-hoc compliance monitoring.

CHAPTER V

PENALTY

21. An official engaging in any activity in contravention to this SOP shall be held accountable and be liable for administrative/disciplinary actions as per the Bhutan Civil Service Rules and Regulations 2018.

22. Any non-compliance by the captive mine owners shall be dealt with as per the Section 32 and 45 of the Mines and Minerals Management Act 1995 and the Mines and Minerals Management Regulations 2022.

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CHAPTER VI

MISCELLANEOUS

In this Standard Operating Procedure, unless the context otherwise requires:

(1) **"Low-grade Minerals"** are defined as minerals which are generated in the process of mining intended mineral(s) and that do not meet the required cut-off chemical grade (chemical composition) or physical properties (colour, whiteness, brightness, etc.) for its use in the intended industry; and

(2) **"Rejects"** are defined as the minerals or materials other than the primary intended mineral(s) like overburden/inter-burden materials or undersize mineral (for e.g. quartzite aggregate below 40mm) extracted in the process of mining the intended mineral(s).

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Annex 1: Application for permit for sale of low-grade minerals and/or rejects from captive mines

To
Director
Department of Geology and Mines, Thimphu

Date:

Sir,

I/We request for the permit for sale of low-grade minerals and/or rejects from captive mines. The details are as follows:

Name of the captive mine:

Lessee:

Permit requested for: ☐ New ☐ Renewal

*Permit requested for: ☐ Low-grade minerals ☐ Rejects
(please tick relevant box)

Estimated quantity (in MT):

Source of the mineral/material requested within the mine:

Stockyard (location):

Export/domestic market:

Details of the application submitted by:

Name: Signature:

Designation

Contact:

Email:

*(*Refer Standard Operating Procedures for sale/export of low-grade minerals and/or rejects from captive mines for details on the definition of low-grade minerals and rejects)*

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Annex 2: Verification Report of low-grade and/or rejects from captive mines

1. Site observations and details of mineral/materials	
Name of the mine:	
Mineral leased	
Mineral/materials requested:	
Date of site visit	
Verified quantity (MT):	
Location of the stockyard:	
Physical properties of minerals/ materials (size, colour, brightness, whiteness, etc)	
Requirement of physical property test. If required, mention the number of samples collected along with sample ID and lab for testing	

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Requirement of chemical analysis for the stocked mineral/materials	
Number of samples for chemical analysis with sample ID	
Brief description of sampling methodology	
Any other observations and issues at the site	
Recommendations	

Submitted by:

Mining Engineer (name and signature)	
Geologist (name and signature)	
Date of submission of report	

Attachments

1. Pictorial evidences with brief description
2. Physical property test results, if any
3. Chemical test results, if any

Annex 3: Permit for sale of low-grade minerals and/or rejects from captive mines

Application Number: Application date:

1. **Details of the captive mine owner**

   a. Lessee:

   b. Name of the captive mine:

   c. Name of the industry:

2. **Details of permit**

   a. Mineral (s):

   b. Type: Low-grade ☐ Rejects ☐

   c. Quantity (MT):

   d. Validity

   Start date: End date:

   Duration:

3. **Terms and conditions:**

   1. You shall lift and despatch the approved quantity of the above-mentioned materials permitted and verified by this Department only;
   2. You shall not be allowed to export high-grade or intended mineral(s);
   3. The Regional Office of this Department shall issue a Transport Permit for the above-mentioned quantity of low-grade stock only after necessary verification.
   4. You shall pay the Royalty and Mineral rent at the prescribed rate to the office of

the Regional Director, concerned RoEA, in advance.

5. You shall produce a copy of revenue receipts of Royalty and Mineral rent payment to the office of the respective Regional Office of DGM, upon receipt of which a Dispatch Order will be issued.

6. You shall transport the materials with a valid Transport Permit issued by this Department only.

7. You shall submit the final materials despatched report to the Regional Coordinator upon completion of the verified stocked materials

8. You shall not add any additional materials generated from the mines on the verified stocked quantity of materials (low grade minerals/rejects)

9. You shall not be allowed to transfer, sublet or contract out the permit to any other person; and

10. Further, you shall abide by the provisions of the Mines and Mineral Management Act 1995, Mines and Mineral Management Regulation 2022 and SOP for Sale of Low-grade Mines or Rejects from Captive Mines.

11. Any non-compliance to the above terms and conditions shall be dealt as per the provisions of Mines and Minerals Management Act 1995 and Mines and Minerals Management Regulations 2022.

Chief Engineer

Mining Division

Copy to:

1. Director, DGM, Thimphu for kind information.
2. Chief Engineer, MDD, DGM, Thimphu for kind information.
3. Head, Compliance and Monitoring Section, MD, DGM, Thimphu for information.
4. Head, Mines Leasing Section, MD, DGM, Thimphu for information.
5. Information Head, Compliance and Monitoring Section, MD, DGM, Thimphu for information.
6. Respective Regional Coordinator, DGM, for information and necessary strict compliance monitoring.