



Republic of the Philippines
Department of Environment and Natural Resources
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MR. TEODORO G. BERNARDINO

President

Marcopper Mining Corporation
4TH Floor, Manila Memorial Park Bldg.,
2283 Pasong Tamo Ext., Cor Lumbang Street,
Makati, Metro Manila 1231

JUN 01 2023

Dear **President Bernardino**:

This refers to the letter dated 07 February 2005 by then Department of Environment and Natural Resources (DENR) Secretary Michael T. Defensor and the various letters sent by the Mines and Geosciences Bureau (MGB) MIMAROPA Region, compelling the Marcopper Mining Corporation (MMC) to take engineering measures and hazard mitigations to address the precarious condition of the North Dam Facility and the Maguila-guila Waste Dumpsite and Siltation Dam located in Sta. Cruz, Marinduque. After twenty-six (26) years since the spillage incident, rehabilitation of affected ecosystems has not yet been undertaken.

Also, based on the recent monitoring conducted by the MGB MIMAROPA Region, the constructed sandbag dams to mitigate the continuous deterioration of the North Dam are not adequately maintained. There is also thick vegetation in the diversion channel that may soon obstruct the water flow toward the San Antonio Pit.

In line with these, the DENR now reiterates the following necessary actions that shall be complied with by MMC, to wit:

1. Tapan and San Antonio Pits and the North Dam Area, and appurtenances of each structure
 - a. Detailed geotechnical assessment of the integrity of the pit lakes that includes maximum water capacity and worse-case scenario-based computation;
 - b. Identification of the hazard potential of the open pits, including the effects of sudden progression of water levels and the acidity of pit lake water on downstream interests, should be undertaken by personnel with appropriate technical expertise, preferably a geotechnical engineer/expert;
 - c. Determining the volume capacity of the two (2) pits in preparation for safe dewatering;
 - d. Installation of emergency spillways;
2. Maguila-guila Creek
 - a. Regular dredging of waste materials in Maguila-Guila Creek to prevent further transport of waste materials downstream;

- b. Regular assessment of the quality of water draining through the Maguila-guila Creek to ensure the safety of communities downstream;
- c. Routine inspection of the upstream channel and banks for vegetation and any debris that could potentially create an obstruction in the spillway or decant needs to be identified and removed from the drainage area;

3. Makulapnit Bypass Tunnel

- a. Implementation of the monitoring program in the Bypass Tunnel and the installation of monitoring devices;
- b. Detailed assessment of the integrity of the Bypass Tunnel;

4. Hinapulan Creek

- a. Continuous monitoring of any indication of breaching of the installed plug after the March 1996 incident, such as seepages, ground cracks, and mass movement;
- b. Installation of permeable reactive barriers as a temporary measure in addressing acid rock drainage (ARD), acid mine drainage (AMD), and heavy metal contamination of freshwaters downstream;
- c. Use of a Georesistivity Meter and/or Ground Penetrating Radar on the surroundings of the creek to determine water table, seepages, and ground composition as another activity in the monitoring;

5. Maguila-guila Mine Waste Dumpsite

- a. Immediate implementation of appropriate slope stabilization and erosion control measures to minimize the transport of sediment /soil that adds up to the worsening condition of the Maguila-guila Dam, Maguila-guila Creek, and Mogpog River;
- b. Immediate submission of measures to reduce the large volume of mineralized sediments that are being eroded from mine waste piles at Marcopper into the surrounding rivers;

6. Upper Makulapnit Dam and Reservoir, Lower Makulapnit Siltation Dam and Bol River Dam, and Appurtenances of Each Structure

- a. Detailed assessment of the integrity of the structures, including the determination of the respective carrying capacity and the potential hazards present thereat;
- b. Continuous monitoring using monitoring tools such as extensometers and piezometers, among others of the structures' instability indicators such as seepages, cracks, mass movements, and pore water pressure;

7. Maguila-guila Siltation Dam

- a. Immediate repair of the whole structure or modification of the spillway to control the flow of water and implementation of the maintenance program of the structure;

- b. In-depth and detailed structural engineering studies to find a long-term solution in mitigating soil/sediment deposition downstream of Maguila-guila Creek/Mogpog River;
- c. Regular assessment of the quality of water draining through the Maguila-guila Creek to ensure the safety of communities downstream;

8. Decommissioned Tailings Disposal Area and Causeway

- a. Implementation of a monitoring program to include routine monitoring/inspection of Calancan Bay;
- b. Regular water and sediments sampling to determine any hazardous effect on the communities;
- c. Immediate submission of a strategy in dealing with tailings disposed of in Calancan Bay;

9. Others

- a. Employment of technical assistance from competent persons for the assessment of the vulnerability of the mining area to seismic-related hazards due to the presence of the active Central Marinduque Fault;
- b. Immediate submission of a monitoring program, including early protocols, routine inspections, and installation of warning monitoring devices to monitor slope instability, seepages, cracks, mass movements, the flowrate of all effluent water, and other indicators that may identify instability and hazards to the surrounding environment of all MMC dam structures and its appurtenances;
- c. Monitoring and evaluation of the degree of erosional processes in all critical slopes associated with primary structures, including the river systems around the Marcopper mine area;
- d. Clearing of all access to all MMC structures and facilities to facilitate repair /maintenance and monitoring;
- e. Removal or disposal of the collapsed Conveyor Bridge (along the road between the mill and Bol River) to prevent hazards posed by the structure to commuters and passers-by;
- f. Reduction of acid rock drainage from the Marcopper mine site into the Boac and Mogpog River Systems;
- g. Removal, stabilization, and covering of tailings exposed along the banks of the Boac River;
- h. Implementation of a strategy in dealing with the acid-generating mine wastes on the Mogpog River channel and adjacent floodplain;
- i. Immediate submission of a strategy in dealing with unexposed tailings remaining in the Makulapnit and Boac Rivers systems;
- j. Construction of effective Wastewater Treatment Facilities in all strategic areas that could pass the DENR General Effluent Standards;
- k. Immediate conduct of Toxicity Characteristic Leaching Procedure (TCLP) in all areas affected by chemicals and hazardous waste; and
- l. Immediate submission of an Action Plan for properly handling, treating, and disposing of hazardous wastes within the MMC facility and remediation of contaminated areas.

Further, this is to call your attention to the commitment to repair the Maguila-Guila Siltation Dam, as stated in the letter dated 25 August 2016 addressed to then Regional Director Roland A. de Jesus.

Preferential compliance on the matter is hereby enjoined.

Very truly yours,



Maria Antonia Yulo Loyzaga
MARIA ANTONIA YULO LOYZAGA
Secretary

Attachments:

1. Letter dated 07 February 2005 of former DENR Secretary Michael T. Defensor
2. Letter dated 25 August 2016 of MMC Corporate Secretary, Alberto O. Cuarteron

Copy furnished:

The OIC-Director

MGB

The Director

EMB

Regional Executive Director

DENR-MIMAROPA

Regional Director, MGB-MIMAROPA

Regional Director, EMB-MIMAROPA

The Director, OCD-MIMAROPA

HON. LORD ALLAN JAY Q. VELASCO

Representative, Lone District of Marinduque

HON. PRESBITERO VELASCO JR.

Governor, Marinduque

HON. ANTONIO UY, JR.

Mayor, Sta. Cruz, Marinduque

HON. ARMI CARRION

Mayor, Boac, Marinduque

HON. AUGUSTO LEO LIVELO

Mayor, Mogpog, Marinduque



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MAY 19 2023

MEMORANDUM FOR THE SECRETARY

FROM : The Undersecretary
Legal and Administration

**SUBJECT : COMMENTS ON THE DRAFT LETTER TO MARCOPPER
MINING CORPORATION FOR IMMEDIATE ACTION TO
MITIGATE THE ENVIRONMENTAL IMPACT CAUSED BY THE
SPILLAGE INCIDENT ON 24 MARCH 1996**

This has reference to the Memorandum of the Regional Executive Director, DENR MIMAROPA Region dated 03 August 2022 requesting for comments on the draft Letter¹ to Marcopper Mining Corporation (Marcopper) urging Marcopper to take the necessary steps to address the precarious condition of the North Dam facility, as well the Maguila-guila Waste Dumpsite and Siltation Dam, which are likely to pose a threat to the surrounding ecosystems and communities if left unattended. The letter also urges the company to begin the long-overdue rehabilitation of the affected area located in Sta. Cruz, Marinduque.

This Office submits the following comments

At the outset, Republic Act No. 7942² or the Philippine Mining Act of 1995 is the primary law governing mining in the Philippines. The law requires mining companies to undertake measures to mitigate the adverse environmental and social impacts of their mining operations. Section 69³ of the said law states that mining companies shall undertake reforestation and rehabilitation of areas affected by their mining operations.

Under this law, the DENR is also mandated to ensure the sustainable development and management of the country's mineral resources, while also protecting the environment and promoting the welfare of mining communities. The DENR is responsible for issuing mining permits and licenses, monitoring and enforcing mining regulations, and overseeing the rehabilitation of mining sites.

¹ Copy attached as **ANNEX "A"**

² (Philippine Mining Act of 1995, Republic Act No. 7942, [March 3, 1995])

³ **SECTION 69. Environmental Protection.** — Every contractor shall undertake an environmental protection and enhancement program covering the period of the mineral agreement or permit. Such environmental program shall be incorporated in the work program which the contractor or permittee shall submit as an accompanying document to the application for a mineral agreement or permit. The work program shall include not only plans relative to mining operations but also to rehabilitation, regeneration, revegetation and reforestation of mineralized areas, slope stabilization of mined-out and tailings covered areas, aquaculture, watershed development and water conservation; and socioeconomic development.

Additionally, Presidential Decree No. 1586⁴ or the Environmental Impact Statement System mandates that mining companies are responsible for mitigating the adverse environmental impacts of their operations. This includes the rehabilitation of areas affected by their mining activities.

In the case of Marcopper, the 1996 mine tailings spill in Marinduque caused significant damage to the environment and affected the local communities. The rehabilitation of the affected ecosystems and the implementation of engineering measures and hazard mitigations are necessary to prevent further damage to the environment and ensure the safety of the local communities.

Notably, after 26 years since the spillage incident, rehabilitation of affected ecosystems has not yet been undertaken. This underscores the importance of ensuring that mining companies take responsibility for the environmental damage caused by their operations and work with the relevant authorities to rehabilitate the affected areas.

This Office notes that the Department issued a decision⁵ dated 02 May 2017 signed by then Secretary Gina Lopez, regarding DENR Case No. 9729 (*In re: Appeal of Marcopper Mining Corporation in connection with the denial of its application for Mineral Production Agreement denominated as AMA-IVB-127*) the dispositive portion of the decision states that:

From all the foregoing, this Office finds no serious error of law or fact, or grave abuse of discretion on the part of the MGB Director in the issuance of the Order dated 2 February 2016 denying the Appeal of Marcopper Mining Corporation.

WHEREFORE, the Appeal filed by Appellant Marcopper Mining Corporation is hereby **DISMISSED** for **LACK of MERIT**.

SO ORDERED.

Moreover, a Notice of Appeal⁶ was filed by Marcopper on 26 May 2017, seeking review of the Department's decision.

This Office submits that despite the urgent need to rehabilitate the mining area affected by the spillage, it is also important to acknowledge that a case is pending before the Office of the President.

It is crucial to address the damage caused by mining operations to prevent further harm to the environment and to the communities living in the affected areas.

⁴ (Establishing an Environmental Impact Statement System, Presidential Decree No. 1586, [June 11, 1978])

⁵ Copy attached as **ANNEX "B"**.

⁶ Copy attached as **ANNEX "C"**.

Therefore, it is recommended that while awaiting the decision of the Office of the President, it may be beneficial for Marcopper Mining Corporation to undertake initial measures to mitigate the hazards and stabilize the precarious condition of the affected areas. This will not only prevent further damage to the environment and communities but also demonstrate Marcopper's responsibility to rehabilitate the subject area.

Attached is the draft Letter to Mr. Teodoro G. Bernardino, President, Marcopper Mining Corporation, requiring him to undertake rehabilitation measures on the subject area, for your approval.


ATTY. ERNESTO B. ADOBO JR., CESO I

APPROVED / DISAPPROVED:


MARIA ANTONIA YULO LOYZAGA
Secretary

Copy furnished:

The Assistant Secretary
Legal Affairs

The OIC, Director
Mines and Geosciences Bureau

The Regional Executive Director
DENR MIMAROPA Region
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