Details of tailings facilities operated with “Extreme” or “Very high” potential consequences

<table>
<tr><td colspan="3">Name of tailings facility</td><td>CBNC TSF3</td><td>THPAL　TSF1</td></tr>
<tr><td colspan="3">Operation</td><td>Coral Bay Nickel Corporation （CBNC）</td><td>Taganito HPAL Nickel Corporation （THPAL）</td></tr>
<tr><td colspan="3">Country</td><td>Philippines</td><td>Philippines</td></tr>
<tr><td rowspan="5">RES 15.1B</td><td>1)</td><td>A description of the tailings facility</td><td>Coral Bay Nickel Corporation (CBNC), hydrometallurgical processing plant in Rio Tuba at the southernmost tip of Palawan Philippines, commenced commercial operation to produce 10,000 tons of nickel per year from April 2005, and expand second processing line for its annual output to 20,000 tons of nickel in June 2009. Through High-Pressure Acid Leach (HPAL), nickel and cobalt in low-grade nickel laterite ore are leached using sulfuric acid and recovered as sulfides. After neutralized, tailings which are hematite and gypsum as predominant are discharged Tailings Storage Facility (TSF).

TSF3 is about 1.5km north-east of the plant. The embankment of TSF3, which has one enclosed embankment on three sides excluding the western side is Rock-fill Dam with 32.0m of the maximum height, 42.0m a.s.l. of the crest. It is being built to full height in one stage with no further raises. The construction of the embankment commenced in October 2021, and is scheduled to be completed in February 2026. The cofferdam which has same structure as the embankment forms the south cell and the north cell in TSF3. The total impounding capacity is 16.5Mm3. Tailings discharged into the south cell commenced from March 2023.</td><td>Taganito HPAL Nickel Corporation (THPAL), hydrometallurgical processing plant located at Barangay Taganito, Claver, Surigao del Norte, commenced commercial operation to produce 30,000 tons of nickel per year from June 2013. Through High-Pressure Acid Leach (HPAL) same as CBNC, nickel and cobalt in low-grade nickel laterite ore are leached using sulfuric acid and recovered as sulfides. After neutralized, tailings which are hematite and gypsum as predominant are discharged Tailings Storage Facility (TSF).

TSF1 is about 3.0km south-east of the plant. The embankment of TSF1 is Rock-fill Dam with 89.0m of the maximum height, 89.0m a.s.l. of the crest, and is designed in four stages raised by Downstream method. The 1st stage embankment was commenced to construct from April 2010, and the 3rd stage embankment, 75.0m a.s.l. of the crest, was completed to build in July 2022. The 4th stage of embankment will be commenced to build from April 2024 and be completed in June 2030. Tailings discharged into TFS1 was started from July 2013.

The Hillside Channel is along the entire perimeter of TSF1 to prevent rain runoff from entering inside TFS impoundment.</td></tr>
<tr><td>2)</td><td>The Consequence Classification</td><td>The Consequence Classification is rated as “VERY HIGH”.
The number of people potentially at risk from dam breach analysis is assumed to be over 1,000, as there are about 200 residences in the sphere of influence. There are no hospitals or schools in the impacted area. However, there is a national highway that crosses the flooded area, which will affect daily life and distribution.</td><td>The Consequence Classification is assessed as “EXTREME”.
The number of people at risk from dam breach analysis is estimated to be over 1,000, as there are over 300 residences within the sphere of influence. There is one clinic in the impact zone, but no school. However, there is a national highway that crosses the flood zone, affecting daily life and distribution relations.</td></tr>
<tr><td>3)</td><td>A summary of risk assessment findings relevant to the tailings facility</td><td>Based on ANCOLD guidelines, TSF3 was designed to ensure stability by performing stability analysis using the predicted Maximum Credible Earthquake (The 10,000-year seismic event) for the dam classification (EXTREME). The results of this analysis and the design were verified by third-party verification. The flood discharge was also designed to be able to carry the “Probable Maximum Precipitation” (PMP) and “Probable Maximum Flood” (PMF), which were also validated by a third-party verification.</td><td>Based on ANCOLD guidelines, TSF1 was designed to ensure stability by performing stability analysis using the predicted Maximum Credible Earthquake (The 10,000-year seismic event) for the dam classification (EXTREME). The results of this analysis and the design were verified by third-party verification. The flood discharge was also designed to be able to carry the “Probable Maximum Precipitation” (PMP) and “Probable Maximum Flood” (PMF), which were also validated by a third-party verification.</td></tr>
<tr><td>4)</td><td>A summary of impact assessments and of human exposure and vulnerability to tailings facility credible flow failure scenarios</td><td>According to the results of the breach analysis, which assumes a forced dam breach, tailings will be released into the riverbed on the southeast side and flow downstream from the National Highway to the downstream riverbed area. As a result, approximately 200 residences along the national highway and around the riverbed area would be affected by flooding.</td><td>According to the results of the breach analysis, which assumes a forced dam breach, tailings will be released into the Hayanggabon River, and more than 300 residences will be affected by flooding. Note that 41 households residing directly downstream of the dam were relocated prior to the construction of the dam.</td></tr>
<tr><td>5)</td><td>A description of the design for all phases of the tailings facility lifecycle</td><td>
<table>
<tr><td rowspan="3">Status</td><td>Avtive</td></tr>
<tr><td>Operating ：South Cell</td></tr>
<tr><td>Constracting：North Cell</td></tr>
<tr><td>Started inpoundment</td><td>Mar-2023</td></tr>
<tr><td>Type</td><td>Rockfill Dam</td></tr>
<tr><td>Raising method</td><td>N/A</td></tr>
<tr><td>Dam Height</td><td>32 m</td></tr>
<tr><td>Dam Elevation</td><td>42 m a.s.l.</td></tr>
<tr><td>Downstream slope</td><td>1:2.0</td></tr>
<tr><td>Upstream slope</td><td>1:1.8</td></tr>
<tr><td>Length of Embankment</td><td>2,350 m</td></tr>
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<tr><td>Catchment area</td><td>107 ha</td></tr>
<tr><td>Impondment area</td><td>75 ha</td></tr>
<tr><td>Impoundment Volume
Flood Criteria
-Annual Exceedance Probability</td><td>16.5 Mm^3
PMF</td></tr>
<tr><td>Seismic Criteria
-Annual Exceedance Probability</td><td>1/10,000</td></tr>
<tr><td>Operational Basis Earthquake (OBE)</td><td>1/500</td></tr>
<tr><td>Maximum Credible Earthquake (MCE)</td><td>SEE</td></tr>
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</td><td>
<table>
<tr><td rowspan="2">Status</td><td>Active</td></tr>
<tr><td>Operating：3rd Stage
Preparation work：4th Stage</td></tr>
<tr><td>Started inpoundment</td><td>Jun-2013</td></tr>
<tr><td>Type</td><td>Rockfill Dam</td></tr>
<tr><td>Raising method</td><td>Downstream</td></tr>
<tr><td>Dam Height</td><td>89 m(4th Stage)</td></tr>
<tr><td>Dam Elevation</td><td></td></tr>
<tr><td>1st stage</td><td>38 m a.s.l.</td></tr>
<tr><td>2nd stage</td><td>60 m a.s.l.</td></tr>
<tr><td>3rd stage</td><td>75 m a.s.l.</td></tr>
<tr><td>4th stage</td><td>89 m a.s.l.</td></tr>
<tr><td>Downstream slope</td><td>1:3.0</td></tr>
<tr><td>Upstream slope</td><td>1:3.0</td></tr>
<tr><td rowspan="2">Length of Embankment</td><td>1,217 m(3rd Stage)</td></tr>
<tr><td>1,476 m(4th Stage)</td></tr>
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<tr><td>Catchment area</td><td>940 ha</td></tr>
<tr><td>Impondment area</td><td>267 ha (4th Stage)</td></tr>
<tr><td rowspan="2">Impoundment Volume</td><td>52.7 Mm^3(up to 3rd Stage)</td></tr>
<tr><td>96.4 Mm^3(up to 4th Stage)</td></tr>
<tr><td>Flood Criteria
-Annual Exceedance Probability</td><td>PMF</td></tr>
<tr><td>Seismic Criteria
-Annual Exceedance Probability</td><td>1/10,000</td></tr>
<tr><td>Operational Basis Earthquake (OBE)</td><td>1/500</td></tr>
<tr><td>Maximum Credible Earthquake (MCE)</td><td>SEE</td></tr>
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6)	A summary of material findings of annual performance reviews and DSR (Dam Safety Review), including implementation of mitigation measures to reduce risk to ALARP	The following suggestions were received from the EOR. ・With regard to the spillway, periodic inspection and cleaning should be performed to prevent blockage and reduction of flow capacity due to accumulation of soil and rocks. 【Action】 Continuous inspections of the spillway and surrounding area are conducted daily. If accumulated debris is found in the spillway through visual inspection, they are immediately removed. The inspection of the surrounding area is also conducted to find if there are sources of blockage. Sources like trees, hanging rocks, other materials that may fall and cause blockage will be either removed or reinforced.	The following suggestions were received from the EOR. ・Upstream of TSF1, the topographic alteration due to mining is expected to increase the runoff coefficient (Larger PMF value), so the capacity of the flood discharge should be checked. ・In 2017, the Philippine Institute of Volcanology and Seismology (PHIVOLCS) updated the Peak Ground Acceleration (PGA) in the Philippines to consider new findings, and since the design seismic coefficient THPAL have increased, the design seismic coefficient and dam stability need to be reconfirmed. 【Action】 Verification of the spillway's flow capacity and the stability of the dam in relation to the design seismic coefficient is being verified during the detailed design of the 4th stage. In addition, verification of the validity by the third-party is being conducted in parallel.
7)	A summary of material findings of the environmental and social monitoring programme including implementation of mitigation measures	A monitoring system for TSF3 embankment was designed in accordance with ICOLD and ANCOLD guidelines. Monitoring measured parameters are 1) pore water pressure within the core of the embankment, 3) pore water pressure within the foundation, 3) groundwater levels and quality seeping through the foundation, 4) subsurface lateral displacement and settlement, and 5) crest settlements. Effluent from TSF3 is sampled daily to monitor water quality to ensure that it meets the water quality standards set forth by the Department of Natural Resources (DENR) of the Philippines.	A monitoring system for TSF1 embankment was designed in accordance with ICOLD and ANCOLD guidelines. Monitoring measured parameters are 1) pore water pressure within the core of the embankment, 3) pore water pressure within the foundation, 3) groundwater levels and quality seeping through the foundation, 4) subsurface lateral displacement and settlement, and 5) crest settlements. Effluent from TSF1 is sampled daily to monitor water quality to ensure that it meets the water quality standards set forth by the Department of Natural Resources (DENR) of the Philippines.
8)	A summary version of the tailings facility EPRP (Emergency Preparedness and Response Plan) for facilities that have a credible failure mode(s) that could lead to a flow failure event	Emergency Preparedness and Response Plan (EPRP) was established and is conducted according to its contents. 1. Response to unusual operating condition To detect unusual conditions through the monitoring and response different actions taken according to the procedure. 2. Emergency Response Plan a) If an indication of an impending dam break is spotted or observed, the discoverer should report to the Manager and the Supervisor of the Environment Management and Quality Control Section (EMQCS). The Supervisor must proceed to the area immediately and identify an incident. b) For major incident, depending on the situation, make following instruction. (i) Inform the employees and officials of the downstream of the dam to take the emergency evacuation, conduct head count, and conduct search, and rescue under the supervision of the Disaster and Risk Management Committee (DRCM) if someone is missing. (ii) General Affairs Dept. Manager and Community Relations Officers should immediately contact Local Government Units to inform them of the incident. Community Relations Officers should guide the community to designated evacuation sites around their area which is away from the flood routes. (iii) Stop operation to reduce slurry volume discharge to the tailings dam and operate all pumps to reduce water level. (iv) The Emergency Response Team (ERT) provide need equipment to be use in response to incident, and request contractors for additional equipment and/or manpower for response. c) Deploy a command center which is plant Manager, ERT and DRCM. The command center will be the disaster management at the sight where the emergency is unfolding can be best and safety overseen and is to evaluate the actual situation and that the necessary and appropriate action can be implemented or instructed. d) If every personnel and resident is evacuated and accounted, patrols at a safe distance are conducted to check and provide assistance and information to areas that have been affected. h) The situation should be reported to Government Entities within 24 hours. i) Provide assistance to rehabilitation and mitigation of impact and to the Disaster Management and Rehabilitation process. 3. Information, Education and Communication EMQCS shall coordinate with the Safety Section to plan the Dam break emergency action plan. Two sections shall disseminate this information in hand to all CBNC personnel. The Safety Section should ensure that the necessary materials for the emergency action plan are adequate and maintained. The Safety Section together with the Community Relations Section should ensure that the affected communities and their Local Government Unit (LGU) are well informed and educated about this scenario. 4. Emergency Drills	Emergency Preparedness and Response Plan (EPRP) was established and is conducted according to its contents. 1. Response to unusual operating condition To detect unusual conditions through the monitoring and response different actions taken according to the procedure. 2. Emergency Response Plan a) If an indication of an impending dam break is spotted or observed, the discoverer should report to the Manager and the Supervisor of Mine Environment Protection and Enhancement Office (MEPEO). The Supervisor must proceed to the area immediately and identify an incident. b) For major incident, depending on the situation, make following instruction. (i) Inform the employees and officials of the downstream of the dam to take the emergency evacuation, conduct head count, and conduct search, and rescue if someone is missing. (ii) General Affairs Dept. Manager and Community Relations Officers should immediately contact Local Government Units to inform them of the incident. Community Relations Officers should guide the community to designated evacuation sites around their area which is away from the flood routes. (iii) Stop operation to reduce slurry volume discharge to the tailings dam and operate all pumps to reduce water level. (iv) The Emergency Response Team provide need equipment to be use in response to incident, and request contractors for additional equipment and/or manpower for response. (v) Cutoff national highway at designated point due to the possible flash flooding c) Deploy a command center at THPAL plant site and satellite centers at Taganito side and Hayanggabon side. The command center will be the disaster management at the sight where the emergency is unfolding can be best and safety overseen and is to evaluate the actual situation and that the necessary and appropriate action can be implemented or instructed. The satellite center will also serve as public communication sites for grievances, information dissemination, etc. d) If every personnel and resident is evacuated and accounted, patrols at a safe distance are conducted to check and provide assistance and information to areas that have been affected. h) The situation should be reported to Government Entities within 24 hours. i) Provide assistance to rehabilitation and mitigation of impact and to the Disaster Management and Rehabilitation process. 3. Information, Education and Communication MEPEO shall coordinate with the Safety Section to plan the Dam break emergency action plan. Two sections shall disseminate this information in hand to all THPAL personnel. The Safety Section should ensure that the necessary materials for the emergency action plan are adequate and maintained. The Safety Section together with the Community Relations Section should ensure that the affected communities and their Local Government Unit (LGU) are well informed and educated about this scenario. 4. Emergency Drills

			Dam Break emergency drill will be conducted once a year.	Dam Break emergency drill will be conducted twice a year.
	9)	Dates of most recent and next independent reviews	Multipartite Monitoring Team (MMT) which composed representatives from governmental agencies, local governments (municipalities and barangays), religious sectors, non-government organization and mining companies, etc., validates activities and monitoring data of the Environmental Protection and Enhancement Program every quarter. The next review will be conducted in August 2024.	Multipartite Monitoring Team (MMT) which composed representatives from governmental agencies, local governments (municipalities and barangays), religious sectors, non-government organization and mining companies, etc., validates activities and monitoring data of the Environmental Protection and Enhancement Program every quarter. The next review will be conducted in August 2024. Additionally, the stability of the 4th stage embankment and the capacity of the spillway are currently being assessed for design validity by the third-party organization.
	10)	Annual confirmation that the Operator has adequate financial capacity to cover estimated costs of planned closure, early closure, reclamation, and post-closure of the tailings facility and its appurtenant structures	Closure plan was established as Final Mine Rehabilitation and Decommissioning Plan (FMRDP) and summited to Department Environmental and Natural Resources of Philippine, and annual deposits is made to the FMRDP Fund.	Closure plan was established as Final Mine Rehabilitation and Decommissioning Plan (FMRDP) and summited to Department Environmental and Natural Resources of Philippine, and annual deposits is made to the FMRDP Fund.
RES 15.1C		Provide local authorities and emergency services with sufficient information derived from the breach analysis to enable effective disaster management planning	Information, Education and Communication (IEC) activities with communities were held regularly for stakeholders and public audiences. Quarterly, the construction status of TFS3 and environmental monitoring results were explained to the members of MMT.	Information, Education, and Communication (IEC) activities with communities were held regularly for stakeholders and public audiences. Quarterly, the construction status of TFS1 and environmental monitoring results were explained to the members of MMT.

The status of conformance for GISTM and the summary to address any gaps

RES	Criteria	Description as of August 2023 (Progress and Further work)	Status as of August 2024
RES 1.1	Conduct the human rights due diligence	Operations and activities are conducted based on the SMM Group Human Rights Policy in accordance with UNGP and are compiled to the Philippine Human Rights Laws and Regulations, but the human rights due diligence process regarding the tailings dam facilities has not been implemented. The human rights due diligence will be conducted through the process in accordance with the SMM Group Human Rights Policy, which was revised on June 1, 2022.	Meets this requirement.
RES 5.7	For an existing tailings facility, seek to identify and implement additional reasonable steps that may be taken to further reduce potential consequences to people and the environment.	On design and construction phase, the design was adopted to minimize risks to people and the environment and the TSF was developed robust design. While, in the operation phase, additional reasonable steps to farther reduce potential consequences have not been identified. For an existing tailings facility, the assessment and the frequency of its procedure based on the Dam Safety Review (DSF) should be involved to Tailing Management System (TMS).	Meets this requirement.
RES 6.5	Establish the Change Management System	Through the TSF lifecycle, processes for identifying changes and processes for evaluation, review and approval have been done. A Change Management System has not been introduced including documentation as Deviance Accountability Report. A Change Management System will be established into the Tailings Management System.	Meets this requirement.
RES 8.1	Publish the policy on or commitment to the safe management of tailings facilities	Sumitomo Metal Mining Group's Sustainability Policy was published, and its activity includes the safe management of tailings facilities. While the policy does not meet the Requirement sufficiently. The policy for the safe management of tailings facilities will be revised and published.	Meets this requirement.
RES 13.2	Assess the capability of identified organizations to address emergency responses and improve a collaborative plan if gaps are identified.	Public sector agencies and local authorities and institutions that would participate in any emergency response have been identified, but the capacity of identified organizations has not been assessed. The assessment of the capacity to be supported by identified organizations in any emergency response will be conducted, and a collaborative response plan will be developed.	Meets this requirement.