Environmental Protection Agency (EPA)

Case Studies

AGM Inc. – Gold Mining – Cuyuni River, Region 7 (2024-2025)

Findings	Recommended Action	Corrective Action	Follow-up Outcome	Additional required actions
Surface Mine				
The Agency observed several changes to the operation as it relates to construction and continues not to be notified. Further, the Agency was not also notified about the construction of Photovoltaic farms, the clearing of land clearance for the Photovoltaic farm and installation of additional Slurry tank to the processing circuit.	The Agency is required to notified of any change in the operation as is outlined in 20(3) of the Environmental Protection (Authorisations) Regulations. Henceforth, ensure that the Agency is notified prior of any future changes to the operation. Please submit a detailed project summary outlining **all** construction detail for any developmental activities that would be undertaken on site. Further the Agency request the waste	The Company submitted their Annual Mine for 2025, which indicated all intended changes related operation and construction	No further action required. However, the Agency shall continue to remind AGM Inc. to notified of any change in the operation as is outlined in 20(3) of the Environmental Protection (Authorisations) Regulations.	

	management considerations and capacities for the Photovoltaic farms at the site **on or before September 30, 2024.**			
No muster point was established around the Sinohydro mechanical workshop.	Establish a muster point in a safe location that personnel can evacuate to in the event of an emergency on or before August 18, 2024.	No corrective Action taken	The Agency noted that non operable machineries are parked in the area of the designated muster point.	The Company still needs to establish a muster point around the Sinohydro mechanical workshop in a safe location that personnel can evacuate to in the event of an emergency.
The Q4- 2022 and Q4-2023 indicates that there is an alarming issue with the mercury values at AGM Inc. monitoring stations for the latter part of both years. Further, please be reminded that condition 3.2 of your Environmental Permit (Renewed) indicated that Mercury must not be used in any part of your operation.	Please ensure that **No Mercury** is use in the gold extraction and processing activities.	Implemented security measures to prevent any external miners/ person from accessing tailing area. The Company reiterated that No mercury is use in their process. Continuous testing will be done to monitor this issue.	The Agency awaiting the submission of the Q3 and Q4 Monthly Report for 2024. The Agency also awaiting the result that was collected during July 22, 2024 compliance inspection.	Base on the quarterly water quality monthly reports it indicated that there no mercury in their processing activities.

The oil and water separator at the Sinohydro mechanical workshop fuel storage area continues to be non-functional and the discharge point of the oil and water separator could not be located. The earthen drain constructed to remove water from around the storage area was covered/filled by the earthen materials from the construction of the new crusher. Water from the containment sump is being pumped directly into the environment behind ramp that was created for the crusher.	Construct an effective drainage system with oil and water separator around the Aurora and Sinohydro Mechanical Work Shop and fuel storage areas. Also, the area surrounding the bund should be sand-filled and a layer of gravel on top to stabilized the area. Please submit a flow chart outlining the drainage path of the Mechanical Work Shops area. Structures to allow channeling of surface run-off into the Mine water Pond should be constructed and functional **on or before September 30, 2024.**	Constructed a concrete drain at the mechanical workshop area, no oil/water separator	At the time of inspection, a concrete drain was constructed between the primary crusher ramp and the Rubis fuel storage at the Mechanical Workshop area. However, the Sinohydro Mechanical Workshop area remains to be slushes and unsafe to work.	Construct an effective drainage system with oil and water separator around the Sinohydro Mechanical Work Shop to allow surface runoff. Further, the Agency request that the area be back filled and crown to allow surface run off into the concrete drain on or before **April 30, 2025.** The Company have backfilled the area and issue has been resolved.
The STP is on site, however it continues to not be fully operational which is due to instrumental malfunction(s). Please be reminded that the STP was scheduled to be 100 % operational	Ensure that the new STP is **fully** commissioned by the end of the 3rd quarter of 2024 for continuous monitoring of the level of nitrogen, BO, COD, phosphorus and	The New STP was commissioned on site.	Continuous monitoring of new STP to verify that level of nitrogen, BO, COD, phosphorus and coliform in effluent discharged are within the standard and submit results from	To date the company is experiencing issue with the New STP of not meeting the monitoring standards. A new sensor is being procured for installation shortly.

in the first quarter of the last year 2023.	coliform in effluent discharged are within the standard.		testing to the Agency for review in the Quarterly Monitoring Report for that period.	
It was observed that water containing fuel from the sump area at the bulk fuel storage area in proximity to the processing area was directly pumped into the environment.	**Immediately** stop the draining of water containing fuel from the sump at the bulk fuel storage area in proximity to the processing area directly into the environment. Any water containing fuel must be channelled into an oil and water separator before the water enters into the environment.	An oil water separator was installed.	Officers verified the oil water separator was installed and functional.	
It was noted that they were no spill kit around the waste oil storage area for AGM Inc. and Sinohydro (contractor) Mechanical workshop.	**Immediately** ensure that adequate and appropriately sized spill clean-up kits are located at the mentioned locations. Further kits should be readily available at all times within the said locations. Kits must contain absorbent materials, drain seals and other appropriate tools for clean-up.	The Company procured spill kits for the area.	No Waste oil from the Generator area oil and water separator was being discharged into the environment. No further correction action required.	

It was observed that a new Berm area was constructed for the Cyanide tank, however, it was undetermined if the area was lined with an impervious base.	Please ensure that the new berm constructed for the Cyanide tanks is lined with an impervious base. Further, ensure that discharge from this area is directed to the cyanide spill way on or before **August 31, 2024.**	The impervious concrete base was constructed within the berm area.	A berm with an impervious concrete base was constructed for the storage of the cyanide tanks with the discharge point directed towards the cyanide spillway. No further corrective measure required	
Underground Mine				
Only one refuge station was in the underground decline and the decline is approximately 2000 m. The refuge station was not updated and equip with supplies in case of an emergency. The fire extinguisher was updated and service.	Ensure a Refuge stations are provided at discrete locations at every 300 m from any work station, shaft or portal. Every underground refuge station must be clearly identified, constructed of noncombustible material, and will be of sufficient size to accommodate all persons working in the vicinity, equipped with a supply of air, a supply of water, a means of communicating with the surface, a means of sealing to prevent	There are two refuges chambers in the MK and AH underground mining areas. One refuge chamber has been installed at the MK-240 sublevel, and another one has been installed at the AH-120 sublevel. For now, in the MK sublevels, the main working is at the MK-220, and MK-240 sublevels, so we have installed the Refuge Chamber in the MK-240 sublevel.	It was determined more feasible to move the refuge stations to the specific working area within the mine. Work is not being carry out within the entire underground mine.	

	entry of gas, and first aid equipment, equipped with a plan of the mine clearly showing all emergency exits and located 100m from explosives magazines and 100 meters from flammable materials storage.			
At the entrance of the portal for Aleck Hill decline it was observed that a vertical rock face was comprise of unconsolidated rocks which can be susceptible to erosion.	Please ensure that all unconsolidated rocks susceptible to erosion are mesh or remove to remove any dangerous working condition.	After careful investigation and discussion with the open- pit and HSE departments, there is no way to remove the unconsolidated rock from the AH portal. The height of the unconsolidated rock from the bottom is about 35m and from the top of the pit is about 50m so there is no such equipment to reach at that certain height to remove the rock or apply mesh	The company installed a 3^{m} berm to prevent rock fall or collapse.	
Tapir Barge Crossing				
Waste continues to be dumped on the road shoulder heading towards the	The practice of dumping waste along the road corner is highly	The practice of dumping of waste along the road has been fully	Officers noted all corrective actions were implemented by the company.	

domestic waste pi	unacceptable. Waste Pits needs to be utilized immediately. Desist from dumping of the domestic waste along the road corner to the waste pit. Waste dumps along the road needs to be immediately cleaned-up. This exercise to be forwarded to the agency. Further, the road to the waste pit needs to be rehabilitated for free access to the pit	discontinued. All personnel working in the area has been instructed to discontinue this practice immediately and clean up was done in areas where waste was seen om inspection. Two separate waste pits have also been established, one for general waste and another for organic waste. The road leading to waste pits has been fully rehabilitated, ensuring unobstructed access.		
An unknown amount of waste oil was observed being discharged around the area where generators used to be.	There is a need for general improvement on the aesthetic and sanitation at the Tapir crossing	Work is currently taking place to enhance the overall the aesthetics of the area. In particular, the fuel and oil spill near the generator	Officers noted all corrective actions being implemented by the company.	

	(Toilet facilities, storage bond, entrance toward waste pit etc.). Immediately, ensure that cleanup activities are in accordance with the Spill Contingency Plan for the area. Photographic evidence needs to be forwarded to the Agency upon completion of the exercise. Ensure continuous care and maintenance is conducted at all AGM's location	house has been cleaned up in accordance with the Spill Contingency Plan, ensuring all safety and environmental guidelines are met. In the case of the washroom facilities, work will commence on the building of new washroom facilities. For the storage area, work will also begin to enhance the storage area, focusing on cleanliness and proper organization.		
Officers from the EPA were informed that Tapir Crossing Barge Facility will accommodate only security personal on shift	All non-essential aspect i.e., storage bond, decommissioning of well for the facility that are no longer required, and waste generated must be disposed of in accordance with the Waste Management Plan and	All waste generated during this process is being properly identified, handled, and disposed of according to the specified guidelines to ensure environmental safety and regulatory adherence.	Officers noted the company implemented waste separation and handling practices.	

	Hazardous and Hazardous Materials Management Plan.			