

Barbara Schuhmann

Please see my letter # 3 regarding Integrated Waste Management plan and reclamation plan.

Department of Natural Resources
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Anchorage, AK 99501-3577
907/269-8732

Department of Environmental Conservation
610 University Avenue
Fairbanks, AK 99709
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Re: Objection to Approval of Permit Applications
Request for Public Hearing
Request for Corrected Public Notice and New Public Comment Period
Reclamation Plan F20232626RPA
Integrated Waste Management Permit 2023DB0001 for Manh Choh Project

Dear Sirs:

I object to approval of the Manh Choh reclamation plan, permit, and bond amount. In other letters I have made other objections to both permits listed above, but these comments focus on the **reclamation plan and permit**.

The plan, permit and bond amounts are incomplete. None of these takes into consideration or includes the full mining operation: extraction, transporting to the processing area, processing and disposal of tailings. They only cover the extraction area, probably less than one-third of the total area that this mining operation will affect. As such, they cannot be approved.

This makes the bond amount inadequate. The amount only estimates costs for about one-third the area that will need to be reclaimed. And the proposed timeline for monitoring at the extraction area is inadequate. This mine will generate PAG and NAG. These do not go away after 8-10 years but will last hundreds of years into the future. The bond should cover the costs of monitoring, in amounts similar to other large mines with acid-generating ore. All estimates should be increased to be more in line with our recent experience with inflation.

Because there is a substantial portion of the mining operation on public highways, the applicant should provide proof of financial responsibility, insurance and post a bond in case of transportation accidents, spills of ore, road damage, bridge damage, and cleanup of waters and soils along transportation corridor. None of these costs – which should be expected – are included in the proposal. Without them, it cannot be approved.

At public meetings, representatives of “Manh Choh” mine have admitted that neither Peak Gold, LLC nor Kinross Gold Corporation agree to have any liability for the

transportation portion of the Manh Choh mining operation. The state must insist upon proper recognition by the proper parties for all parts of the Manh Choh mining operation before granting permits for any parts of the operation. This should include liability for reclamation and remediation of the site of disposal of the tailings after processing, which will also be acid-generating, and liability for accidents caused by the mining operation occurring on public highways.

I question whether Peak Gold, LLC is bound by the signature of its environmental director. The limited liability company acts through a manager, which is not organized in or recognized by the state of Alaska. So even if it signed a proper authorization of its environmental director, the authorization itself would be questionable and may have no effect. The parent corporations of the limited liability company should sign all permits and bonds.

There should be a 3rd party audit every year once mining operations begin. This should not wait until the final year of mining. If Manh Choh is like other large mines, it could be many years into the future before it reaches its “final year”. The state needs to know sooner than the final year, whether the facility and controls are functioning as intended, and are actually performing the functions needed.

The applicant proposes a plan that limits reclamation to less than the whole of the mining operation. The statutes and regulations require that all parts of the mining operation be included in the reclamation plan. It is clear that the mining operation will include extraction, hauling rock to trucks, some crushing at the extraction site, trucking acid-generating ore on 248 miles of public roads to Fort Knox, processing ore at Fort Knox and dumping the tailings at Fort Knox. This proposed reclamation plan is incomplete, as it only discusses reclamation at the extraction site, probably less than one-third of the mining operation that will need to be reclaimed.

Thus, the proposed plan does not meet 11 AAC 97.310, as it does not list all property and locations where operations will be conducted. It does not appear to meet the other requirements of 11 AAC 97.310 either.

The south pit that will remain open will not meet the standards of AS 27.19.020 and 11 AAC 97.200(b). This area will not “be restored to surface contours conducive to natural revegetation” or alternate uses like trails, lakes, recreation sites, fish and wildlife enhancement, commercial or agricultural purposes.” Instead, the walls will drop 200-300 feet to water that will be 50’ deep over 250’ of potentially acid-generating backfill. There will be a berm to keep vehicles away, but people, animals and birds can fall in and be exposed to acid mine drainage. This will be an attractive nuisance to the people in the area.

Both the north and south pits, as well as the multiple waste rock dumps, may be subject to substantial seismic activity, yet there is no discussion of or mitigation or plan for such occurrences. Shouldn’t there be some kind of monitoring or audit after a substantial

earthquake in this area, to make sure there is no acid mine drainage escaping from the pits and waste rock dumps?

The applicant and others may dump more than just waste rock into the dumps and pits. For example, there is mention in the waste management plan of dumping “spent tires” into the waste rock dumps. In view of the possible 70,000 truck transits per year over the highway portion of this Manh Choh mining operation, using 16-axle vehicles with 50+ tires each, that could be a lot of tires in addition to tires from other equipment and vehicles! Spent engine blocks and other refuse could be placed into the rock dumps and pits as well. Since dumping of tires is planned, there should be a plan on how to prevent, monitor, remove and properly dispose of other items that may be dumped into the rock dumps and pits as well. This should be planned for. The reclamation plan should account for this and require that items that could be harmful to the environment are removed during reclamation and properly disposed of.

This is also true of the highway portion of this mining operation. The state should require periodic cleaning of the highway corridor (roads, soils and water bodies affected by the ore haul) of all waste deposited by the trucking of ore, including spilled ore, fugitive dust, fuels and oils, tires and tire particles. And upon final reclamation, the highway corridor should be cleaned to return it to its condition before the ore haul.

All trucks should be cleaned of ore, rock, sand and dust before leaving the extraction site and the processing site. This can be done with water or compressed air. It should include trucks’ exposed areas, tires, undercarriages and the beds of unloaded trailers. The cleaning sites will need containment and reclamation.

Wastewater should not be used to suppress dust on the extraction site roads or public highways, as it can contaminate the roads.

The wastewater handling proposed in the plan assumes that arsenic will attenuate in the waters flowing from the extraction site. My understanding is that arsenic – and perhaps other contaminants - tend to remain suspended and attached to water molecules. The state should not assume there will be “sorption and natural attenuation” of arsenic in water draining from the extraction site.

To work correctly, the proposed plan needs each and every one of its many assumptions to be correct and all parts to work. What if the assumptions are, or even one is incorrect? There is no plan or alternatives if even one assumption is incorrect. For example, the north pit liner has yet to be designed. What if it doesn’t work?

The monitoring plan is incomplete and inadequate to cover the time period where acid mine drainage will be present. The monitoring is only proposed at the extraction site but not at the disposal site. The monitoring is only proposed for 8 years after mining ceases. Yet the drainage will be ongoing for hundreds of years at both locations. A more realistic time period and bond amount should be included for monitoring for a reasonable period at both sites where the mining operation will take place. It would

seem advisable to keep the monitoring wells in place for an extended period of time to assist in the monitoring, rather than removing them. Additional funds will be needed and should be added to the bond amount for monitoring wells, sampling, inspections, audits and the like, at both locations and at any locations in the public highway corridor or elsewhere, for any spills or releases occurring due to the mining operation.

The rate of inflation assumed in the plan is inadequate in view of our recent experience with inflation.

In summary, the plan must be rejected. It is incomplete and does not even discuss two large portions of the Manh Choh mining operation: the transportation and ultimate disposal sites. Since the ore will be acid-generating, and thus different than the ore at Fort Knox, disposal of the tailings at Fort Knox must be covered in any plan and bond. A plan for handling spills and releases along the transportation portion of the mining activity must be included. Adequate financial responsibility for accidents occurring during transportation must be proven. There are over 100 school bus stops along the proposed highway portion of the mining operation. Catastrophic accident coverage must be adequate, and provided by the mining operator and its parent corporations. The proposed bond amount is inadequate.

For these and reasons outlined in separate letters, I ask for the plan to be rejected, for a public hearing to be ordered, and for additional time to comment after the public notice is corrected and all studies and documents referenced are posted on the public website.

One final comment is that I am troubled by what will be left to current and future Alaskans after mining is completed. Near Tetlin there will be an open pit of acid-generating rock and water, an attractive nuisance. With seismic activity or time, or a failure of the assumptions made by the applicant, the acid mine drainage will kill fish and make water bodies in the area unusable by humans, animals and fish. North of Fairbanks, the acid-generating tailings will generate risks of harm to the Little Chena and Chena Rivers. The acid mine drainage will last generations, hundreds of years, if not into infinity.

The huge ore transportation trucks will cause accidents with the public on the public highways proposed for use in the transportation portion of the mining operation. The applicant will claim it is not liable because it hired a contractor, yet this is a vital part of its overall mining plan. Victims may be forced to look to the state to be made whole. The state should not authorize this mining operation, including this industrial use of public highways.

Sincerely,

Barbara L. Schuhmann