Data Submitted (UTC 11): 12/10/2022 9:52:29 PM

First name: Tom
Last name: Haynes
Organization:

Title:

Comments: I am a retired civil engineer with much field experience with erosion control and construction of dams, tunnels and hydroelectric powerplants.

I strongly approve of this project. It will improve the environment there and improve national security. This project seems uniquely good to do with minimal longterm risks.

That being said I think improvements should be made. The nearly harmless tailings should not be put in a canyon bottom, even the proposed one that has essentially no drainage area. it should be deposited upland. Runoff should flow away from this deposit not over it. Moving this material would decrease both snow load, runoff and water running across and through the cover material.

The footprint of the permanent tailings area should be dynamically compacted or excavated to competent rock and sealed to reduce or eliminate permeability. The tailings themselves should be highly compacted for protection of the liners from differential settlement and to reduce the permeability of the tailings making seepage and leaching less possible. Proper compaction would eliminate exposure of the tailings while waiting for this material to self-consolidate.

At least 3-inches of bentonite clay powder should be installed below the lower liner and above the upper liner. This 'diaper' swells and seals off any leaks when exposed to moisture. This would also lessen the chance of the upper liner being exposed to groundwater flows and exposure/erosion.

The cover depth over the upper liner is inadequate and must begin with protection of the liner in mind. Bentonite (or any other another suitable clay) is perfect for this. The depth of cover should be increased and the topmost surface should be armored with rip-rap type material to decrease the possibility of erosion. Non-taproot trees should be planted.

This area must receive copious amounts of snow. Where will it be stockpiled and how will the runoff be handled?

Thank you for the chance to comment. Again, I think this project important and should proceed.