

October 20, 2014

This letter is to inform the co-lead agencies of PolyMet's plan to relocate the coal ash landfill from its current location to disposal in the hydrometallurgical residue facility. The relocation will remove any future potential impacts that may occur by leaving it in place, and inundating the covered landfill with NorthMet tailings during operations.

The coal ash landfill (landfill) is located on the east side of the former LTV Steel Mining Company (LTVSMC) Tailings Basin Cell 1E in Township 59, Range 14, Section 10, in approximately the northeast quarter. The landfill was operated by LTVSMC to accept coal ash from LTV's Taconite Harbor facility, and coal contaminated soil from the LTVSMC abandoned coal yard. The landfill was closed per the Closure Plan for the Tailings Basin Coal Ash Disposal Area (Plan) prepared by Wenck Associates for LTVSMC in May 2000, and filed with the Minnesota Pollution Control Agency (MPCA). The landfill ceased accepting coal ash for land disposal on approximately August 1, 2000. According to the Plan, final closure activities were to have been completed by September 22, 2000.

Per the Plan, the landfill was closed as follows:

- The coal ash pile was compacted and graded to a slope between 3 and 20 percent.
- A 6-inch buffer layer consisting of LTVSMC tailings was placed over the coal ash pile.
- A minimum 40-mil linear low-density polyethylene synthetic flexible membrane liner was installed.
- A minimum of 6 inches of tailings was installed over the liner.
- Twelve inches of soil fill were placed and graded.
- Six inches of vegetation supporting topsoil was placed.
- The final covered area was seeded and mulched.

The final footprint of the landfill (AOC 36) is estimated to cover approximately 4 acres and contain approximately 260,000 cubic yards total of material (including coal ash, tailings, and soil covers).

As the current footprint of the landfill lies within the future footprint of an area to be inundated by placement of NorthMet Project flotation tailings, the plan is to relocate the contents of the landfill to the future NorthMet hydrometallurgical residue facility (HRF), which has a design capacity of 6,170,000 cubic yards, and will be a double lined storage facility. The double liner will consist of a composite liner system utilizing a geomembrane liner above a geosynthetic clay liner, with a second liner placed above the first, separated by a leakage collection system. This would substantially remove hydraulic head from the lower liner and thereby virtually eliminate leakage to groundwater from the HRF. Leakage that is collected would be pumped back to the HRF pond, which is collected and pumped back for use at the Hydrometallurgical Plant. This facility is currently planned to be constructed and in use prior to the time period at which the landfill would be inundated with NorthMet flotation tailings (mine year 7).

At this time it is estimated the relocation can be accomplished using five to six, sixty ton capacity, mining haul trucks to move the material over an approximate two and one-half mile haul (one-way) from the current landfill location to the future HRF location. The materials (which are dry, and have hardened to a consistency similar to cement) would be removed from the landfill using a tracked excavator or front end loader. Other equipment utilized would consist of a grader, dozer and water truck. It is expected it would take approximately fifty shifts (8-hour shifts) to move this material, and it would likely be placed as one of the first items in the HRF once it is built, prior to receiving residue. This effort would require no new roads as existing tailings basin roads would be utilized. Some economies could also be realized by utilizing other road grading and watering equipment likely in use for other tailings basin construction activities at that time. Therefore, PolyMet does not anticipate any adverse environmental effects to result from the relocation of these materials.

PolyMet is listing below (in tracked changes mode) the specific, minor modifications to the Environmental Impact Statement that would reflect the relocation of the coal ash landfill:

SDEIS: p. 3-103 and p. 4-372 (same text on both pages)

Fly ash, dredging spoil, and coal pile cleanup material have also previously been disposed of in a solid waste storage site ([landfill](#)) upgradient to the east of Cell 1E. [The contents of this landfill will be relocated to the hydrometallurgical residue facility. The MPCA will determine whether the Coal Ash Landfill could be inundated or would](#)

| ~~need to be relocated. If relocation is required, I~~the landfill relocation would need to be accomplished prior to year 7 of Tailings Basin operation.

As always, PolyMet is happy to answer any questions you have about the relocation of the coal ash landfill, or any other aspect of the NorthMet project.

Sincerely,

Jennifer Saran

Jennifer Saran
Director of Environmental Permitting and Compliance