



November 15, 2006

Dear Reader:

Apex Abrasives, Inc. (Apex) of Missoula, MT applied on January 31, 2006 for an Operating Permit for its Glen Tungsten Mill-Tailings Project near Glen, MT from the Montana Department of Environmental Quality (DEQ), Environmental Management Bureau in Helena and the Bureau of Land Management (BLM) in Dillon, MT. The old Glen tungsten mill tailings contain garnet sand useful for abrasive products. The tungsten mill tailings are located 2 miles north of Glen, MT and $\frac{3}{4}$ mile west of Interstate 15 and are 50 years old.

The applicant seeks approval to wash the sands to recover garnet. Over 970,000 tons of tailings exist and the company would mill them at a rate of 90-200 tons/day for 10-15 years. About 70 percent of the tailings would be reprocessed. The reprocessing of the tailings would result in reclamation of the historic tailings ponds in the area. The permit area would cover approximately 90 acres. All of the operations would be on private and BLM lands in Sections 4 and 5, Township 4 South, Range 9 West, with a well on private land east of the site.

The DEQ and BLM issued a Draft Checklist Environmental Analysis (CEA) on September 11, 2006 evaluating the potential impacts from the proposed reprocessing of tailings and asking for comments on the proposed operation. The Draft CEA addressed issues and concerns raised during public involvement and from agency scoping. A number of comments were received in response to the draft EA. Agency responses to the comments are attached.

The agencies have decided to approve the permit as proposed contingent on posting of a reclamation bond in the amount of \$41,824. Following are the approved permit conditions:

Permit Area: 90 acres

Permitted Disturbance: 6.6 acres for the first five years (tailings ponds 2 and 3)

Bond: \$41,824

Permitted Disturbance: A

side from the tailings impoundments from which the tailings will be removed for reprocessing, the facilities will occupy approximately 2.8 acres. The reprocessing of the tailings would begin with removing the tails from impoundments TP-2 and TP-3.

Impoundment TP-2 covers 3.1 acres and TP-3 covers 3.5 acres. Tailings from the remaining three impoundments would then follow.

Information on the Apex operating permit application can be obtained by writing or calling the Montana Department of Environmental Quality, c/o Herb Rolfes, P. O. Box 200901, Helena, MT 59620, telephone (406) 444-3841; e-mail address hrolfes@mt.gov.

Warren D. McCullough, Chief
Environmental Management Bureau

Date

File: pendingApexAbrasives 0.70

Response to Comment Letters:

September 14, 2006 Letter from Bob Bump:

Comment: Milling at the site would lead to air quality impacts:

Response: As noted on page 10 (section 2.3.1 Air Quality) of the draft EA maintenance of a vegetation cover was found to be the best prevention for wind erosion at this site. The operator would maintain this vegetative cover by timely soil covering, revegetation and irrigation if necessary to establish growth.

As noted on page 11 (section 2.5.2 Soil Salvage) of the draft EA the impoundments would be stripped of cover only as needed for tailings excavation. The soil material would be stockpiled, and replaced as needed during reclamation. The process of excavation would also expose much of the original soil surface that was buried by the mill tailings, which would be used for additional cover material.

As noted on page 12 (section 2.5.4 Revegetation) of the draft EA the wheat grasses and yellow clover mix seeded by the BLM has established well. This seed mix would be repeated but without the yellow clover. Irrigation would be available if necessary to ensure establishment of grasses.

Roads (page 10, section 2.3.1 Air Quality) would be watered for dust control.

As noted on page 21 (section 4.4 Unavoidable Adverse Effects) dust would certainly increase during operations compared to current conditions even with application of Best Management Practices, especially in the wintertime when the strongest winds occur. The agencies would require Apex Abrasives to submit a dust control plan for blowing tailings in the wintertime when irrigation is not feasible (page 18, section 4.1.3 Agency Modification to the Proposed Action).

Comment: Barrels were buried on site as part of the BLM/AML clean-up of the site.

Response: The area where barrels were buried will not be redisturbed.

Comment: The EA notes that the analysis found Benzene in well MW-7 on at least four occasions.

Response: Well MW-7 was sampled for volatiles (including benzene) in 1998, 1999, 2000 and 2006 (see Figure 2 of the draft EA). All of the reported values were below the detection limit. A value between zero and the detection limit is referred to as a J value and is listed. As noted in the EA the estimated value of benzene is below the EPA reporting limits.

Comment: The statement is made that a single barrel of benzene was discovered at the site during the BLM/AML clean-up of the site and that a photograph was taken.

Response: The BLM and DEQ have reviewed this information and cannot find any documentation or photographs to support this claim. The AML supervisor for this clean-up effort states that he has no knowledge of benzene being found during the clean-up.

Comment: There is a concern that there may be contamination of groundwater below the site.

Response: As noted on page 8 (section 2.2.3 Storm Water Handling Facilities) of the draft EA no evidence of seepage contamination from the impoundments was found in neighboring wells. Water quality would be monitored from the well to be drilled in the most downstream Tailings Impoundment (TP-8) and in well MW-6.

As an agency modification to the permit (page 19, section 4.2.3 Agency Modifications) Apex Abrasives would be required to monitor process water for benzene among other parameters, and also wells MW-4 and MW-6, the new well to be drilled in TP-8, and the water well as located near the downstream residence. Changes to the monitoring program would be required if parameters of concern are detected in the settled process water.

The agencies would require Apex Abrasives to construct a treatment plant if monitoring indicates that migration of organic compounds from the tailings into groundwater poses a risk to downgradient beneficial uses (page 14, section 2.6 Agency Modification to the Proposed Action Alternative).

Letter from Elaine Kalsta

Comment: A concern is expressed that heavy machinery and truck traffic on the road would be a significant change for local residents.

Response: All heavy machinery would stay within the permit boundary. Apex Abrasives would maintain the access road from the BLM road to the mill. There would be about six full time employees commuting back and forth (page 11, section 2.4.2 Employment). Traffic would be light and normally only during daytime hours (page 9, section 2.2.7 Dust and Emissions Control).

Comment: A concern was expressed concerning groundwater contamination and lack of use of liners to prevent this.

Response: The reprocessing of the tailings will not use any chemicals, and therefore a liner is not required. The tailings will be removed from the impoundments, processed to remove garnet sands and then returned to the impoundments (page 1, section 1.0 Introduction of Proposed Acton).

Comment: There is a concern about the use of “low bonding.”

Response: The EA does not use the phrase “low bonding.” The bond will be calculated to ensure that the site can be reclaimed in a timely and adequate manner (page 3, section 1.2 Authorizing Actions).

Comment: A concern is expressed that the phrasing is vague regarding when reclamation and revegetation will occur.

Response: On page 9 (section 2.2.7 Dust and Emissions Control) it notes that cover with soil material and revegetation would be completed as soon as possible after excavation. On page 11 (section 2.5.1 Reclamation) of the draft EA it notes that reclamation would be concurrent with removal of tailings and seasonal capability. The DEQ believes that this language adequately assures that reclamation will take place while reprocessing of tailings is ongoing.

Comment: A concern was expressed about an increase in noxious weeds.

Response: The draft EA notes on page 11 (section 2.5.1 Reclamation) that noxious weeds are currently being sprayed and that this effort would continue. The seed mix used in the past established well and would be used again with the exception of deleting yellow clover. Future seeding would be monitored for two years.

Comment: A concern was expressed about ground and air contamination and effects on local citizens.

Response: Apex Abrasives would begin removing tailings from the two impoundments that were not covered with borrow material and revegetated. Since the tailings were deposited directly onto the original soil surface, removal of tailings should expose additional soil that can be used in reclaiming the impoundments. This action should actually reduce the amount of wind blown dust from the site once reclamation is complete. Areas of exposed tailings would be minimized and kept moist. Cover with soil material and revegetation would be completed as soon as possible after excavation. There are three residences near the proposed permit area, only one of which is located somewhat downwind (page 1, section 1.0 Introduction of Proposed Action).

The draft EA notes on page 19 (section 4.2.3 Agency Modifications to the Proposed Action) that a monitoring plan will be in place. Response actions could include increases in frequency of monitoring, monitoring for additional parameters, drilling of additional monitoring wells, initiation of pumpback and treatment of groundwater, providing water supplies for existing water users, and/suspension of mining operations. The agencies would require Apex Abrasives to construct a treatment plant if monitoring indicates that migration of contaminants from the tailings may impact beneficial uses of groundwater (page 14, section 2.6 Agency Modifications to the Proposed Action Alternative).

The agencies would require Apex Abrasives to submit a dust control plan for blowing tailings in the wintertime when the strongest winds occur and irrigation is not feasible (page 18, section 4.1.3 Agency Modifications to the Proposed Action).

Comment: A concern was expressed about adequate bonding.

Response: The DEQ will determine the bond based on what it would cost to hire a contractor to complete the reclamation work in a timely and adequate manner (page 3, section 1.2 Authorizing Actions).

Letter from Erik Kalsta and Jami Murdoch

Comment: A concern was expressed about the level of detail in the reclamation plan for controlling dust and for those months when soils cannot be revegetated.

Response: The agencies believe that the reclamation plan has adequate detail to address the issues of soil removal, revegetation and dust control. The plan details how the soil buried beneath the tailings will be recovered, how the covering of soil material will be salvaged, stockpiled and replaced and how the site will be revegetated (page 1, section 1.0 Introduction of Proposed Action). The operational plan also addresses dust control, with commitments to keep the exposed tailings moist. There will be an increase in dust until vegetation takes hold on revegetated areas and from an increase in truck traffic. However, since two of the impoundments do not currently have a cover of borrow material and are prone to wind blown erosion there should be a net positive gain in dust control at the site after reclamation is completed.

The agencies would require Apex Abrasives to submit a dust control plan for blowing tailings in the wintertime when the strongest winds occur and irrigation is not feasible (page 18, section 4.1.3 Agency Modifications to the Proposed Action).

Comment: The question concerns what the seed mixture will be for revegetation.

Response: The seed mixture is listed on page 20 (section 4.2.3 Agency Modifications to the Proposed Action) of the draft EA as a stipulation to the permit. The mixture would be:

Bluebunch Wheatgrass	4lbs/acre
Western Wheatgrass	4.5 lbs/acre
Basin Wild Rye	4 lbs/acre
Thickspike Wheatgrass	4 lbs/acre
Flax	2 lbs/acre
Western Yarrow	0.25 lbs/acre

Comment: There is a concern about incursion of weeds onto revegetated areas.

Response: The draft EA contains a stipulation that knapweed would be treated until the reclamation bond is released. Also, a weed management plan will be required by the

Beaverhead County Weed Board for any major soil disturbance (page 20, section 4.2.3 Agency Modifications to the Proposed Action).

Comment: The statement is made that runoff problems have always existed at the site.

Response: It is unknown to the agencies and the applicant that runoff has been a problem at the site. The numerous impoundments are capable of holding expected runoff from all but the largest precipitation events. There is no indication that runoff has occurred (page 7, section 2.1.6.1 Milling Operations). This proposed plan for operations and reclamation will increase the volume of the existing ponds as a portion of the stored tailings would be removed. If runoff is observed to be a problem during proposed operations it would be addressed as a maintenance item or minor revision to the permit.

Comment: There is a concern about impacts to the shared road surface by additional mine traffic.

Response: Apex Abrasives would maintain the access road from the BLM road to the mill (page 8, section 2.2.2 Access and Haul Roads). There would only be about six full time employees commuting back and forth. Traffic would be light and normally only during daytime hours. As noted on Page 17 of the draft EA, the cattle guard on the access road may be impacted due to heavier loads than those that currently exist. The frontage road is not paved and would be subject to damage from additional traffic in the area. The agencies would inspect the cattle guard and make recommendations for bypassing it with heavy loads or replacing it if needed. The agencies would develop a road maintenance plan with the company to ensure the frontage road is maintained and access road erosion is controlled with best management practices (page 17, section 4.1.2 Proposed Action Alternative).

Comment: A concern is expressed about possible groundwater contamination.

Response: The proposed groundwater monitoring plan is designed to detect increases in organic compounds associated with pine or tall oils. Pine and tall oil were used as flotation agents to process tungsten. Pine or tall oil may be encountered in the tailings. Groundwater monitoring would continue for an additional two years after processing has ceased (page 10, section 2.3.2 Water Quality).

The draft EA notes on page 19 that a monitoring plan will be in place. Response actions could include increases in frequency of monitoring, monitoring for additional parameters, drilling of additional monitoring wells, initiation of pumpback and treatment of groundwater, providing water supplies for existing water users, and suspension of mining operations (page 19, section 4.2.3 Agency Modifications to the Proposed Action). The agencies would require Apex Abrasives to construct a treatment plant if monitoring indicates that migration of contaminants from the tailings may impact beneficial uses of groundwater (page 14, section 2.6 Agency Modifications to the Proposed Action Alternative)

Comment: A high bond is recommended for this project.

Response: The DEQ will set the reclamation bond based on what the cost would be to the agency if the reclamation work had to be contracted out. The DEQ follows set procedures for determining reclamation bonds (page 3, section 1.2 Authorizing Actions).

Letter from the Big Hole Watershed Weed Committee

Comment: They would like to see a more clear and concise weed management plan.

Response: The draft EA on page 20 (section 4.2.3 Agency Modification to the Proposed Action) contains a stipulation that knapweed would be treated until the reclamation bond is released. Also, a weed management plan will be required by the Beaverhead County Weed Board for any major soil disturbance.

Comment: They would like to see bonding specifically tied to weed control and eradication.

Response: The draft EA notes on page 11 (section 2.5.1 Introduction) that noxious weeds are currently being sprayed and that this effort would continue. The seed mix used in the past established well and would be used again with the exception of deleting yellow clover (page 20, section 4.2.3 Agency Modification to the Proposed Action).

The draft EA contains a stipulation that knapweed would be treated until the reclamation bond is released. Also, a weed management plan will be required by the Beaverhead County Weed Board for any major soil disturbance.

Letter from Montana Fish, Wildlife and Parks

Comment: Antelope should have been noted in the Draft EA as being found in the area.

Response: This comment is noted.

Comment: Apex Abrasives should have a plan in place with the BLM to address public hunting around the processing facility, if public hunting is a concern.

Response: In a discussion with the BLM they have determined that Apex Abrasives does not need to address public hunting around the processing facility. Hunting will not be allowed within the processing facility.

Comment: Golden eagles are common in the project area, as well as Ferruginous, Swainson's, Cooper's and Red-tailed Hawks.

Response: The draft EA notes on page 4 (section 1.5.2 Wildlife) that avian habitat is sparse. The additional species noted by the Montana FW&P as being in the project area are now noted.