



STATE OF  
COLORADO

Ebert - DNR, Jared <jared.ebert@state.co.us>

## Please send where I find a milling permit and what that process is?

Ebert - DNR, Jared <jared.ebert@state.co.us>

Wed, Aug 31, 2022 at 1:54 PM

To: David Emslie <dave@prospectorsgoldandgems.com>

Good day Mr. Emslie,

In response to your August 24 email, for the activities DRMS found at the Rocky Flats Environmental Solutions Mill (File No. M-2020-044), the operation was found by the Board to be a Mining Operation and therefore under the jurisdiction of DRMS. The Board has ordered you to obtain a 110 Designated Mining Operation (DMO) permit and post a bond. Any mining operation subject to DRMS jurisdiction is required to post a bond.

The mining/milling process you describe is similar to what you will need to articulate in your DMO application and associated exhibits. I recommend that you review all the Rules associated with Hard Rock, Metal, and Designated Mining Operations. For the application you will need to submit for the mill site, your review should focus on Rules 1, 3, 6.1, 6.2, 6.3 and 6.4.21. The minimum requirements for the Exhibits you will need to produce for your DMO application are discussed in the applicable sections of Rule 6. Further in-depth discussions can and will be had, when the appropriate 110 DMO application is submitted and under review

Re-mining of waste dumps/piles does not constitute prospecting under the Act and Rules, and this activity would require one to obtain a reclamation permit from DRMS.

Thank you,

Jared

On Thu, Aug 25, 2022 at 9:19 AM David Emslie <dave@prospectorsgoldandgems.com> wrote:

When we receive final order in writing. In order to see what it actually says, we will proceed to take appropriate action on that matter.

In the meantime I need the responses to the questions asked to know how to word the request documents.

On Thu, Aug 25, 2022, 6:53 AM Ebert - DNR, Jared <jared.ebert@state.co.us> wrote:

The Board's order will be the official document with the corrective actions listed. The order will be sent out as soon as possible. At the hearing, the Board followed the Division's recommendation and therefore the following corrective actions we accepted by the Board:

### Corrective Actions:

- 1) Require the Operator to submit a complete 110d Reclamation Permit application within 60 days of the effective date of the Board Order, and obtain approval of the application within statutory timeframes.
- 2) Require the Operator to submit, within 30 days of the effective date of the Board Order, an interim financial warranty in the amount of \$130,323.00 to cover the costs of reclaiming the affected lands.

On Thu, Aug 25, 2022 at 6:44 AM David Emslie <dave@prospectorsgoldandgems.com> wrote:

Where do I find these documents In writing for the corrective actions?

On Thu, Aug 25, 2022, 6:35 AM Ebert - DNR, Jared <jared.ebert@state.co.us> wrote:

Good morning Mr. Emslie, I have received your email and I will respond as soon as possible. In the meantime, I encourage you to begin the steps to proceed to address the corrective actions required at the Board hearing.

Thank you,

Jared

On Wed, Aug 24, 2022 at 1:08 PM David Emslie <dave@prospectorsgoldandgems.com> wrote:

Ok. Thank you for the response. I think we are making some progress and appreciate the response. The Following Question are regarding multiple uses at the site, not doing mining at the site, and or seperating the two. And the process to be used for minerals. And a question about an NOI for small dump removal.

I want to be sure there is a clear seperating and designation of what is what. If the site is used as refining and recycling and manufacturing. The treatment and alterations of products we purchase for recycling and refining. And nothing is being mined at the site. There would be no mining at the site and hence no jurisdiction because nothing would be mined at the site correct.

If I am using the equipment for recycling and cleaning and sorting of recyclable materials. Computer e scrap and solar panel, glass and making construction materials and additives and metals refined to higher purity and concentration, the manufacturing of chemicals for sale to other companies. Including fiber, plastics and metals. This is recycling and manufacturing and cleaning and refining.

Not mining activities correct. And hence no need for reclamation Bond as no affected land. If I go that Route with the site and business plan and no mining is going on at the site it's not a mine site correct? because no mineral processing?

On the seperating of the two.

It would seem the issue comes into play over the rock that comes from the ground and minerals.

As some of this material can be acid producing I do see a point to DMRS jurisdiction by protection of human health and the environment on this product. This is why I want to see as well. The process neutralizes acid producing rock rendering it inert.

As such I can see a jurisdiction over the proper handling of this material to ensure that protection is in place. Although my business partner does not know I am in contact with the agency. I am attempting to work a resolve, I do believe we have a mutually beneficial goal.

So I would detail and have input on what is used in refining and recycling. And what is used in mineral processing. There would be no requirement for a reclamation Bond on refining and recycling and sorting and it's products because that is not mining correct?

The site experiments and testing have been a proof of concept for the remediation of mine waste and ore. The goal is zero waste. Zero discharge.

I want to run this by you so a clear understand of what is happening is understood as far as mineral processing.

Ore and or low grade acid producing Rock from dumps that can an do pose a problem need to be mitigated.

Process and plan

Ore or waste rock Removal from a site. Transported down to our facility. Dumped on the concrete containment pad. If wet or rained on that material and run off is contained so it protects human health and the environment. And such run off is nutralized and used in the system.

Material is put in a hopper. Anything oversized is crushed. Apen says we are exempt based on their standards and size and scope.

This material is conveyed and crushed in a rod Mill. Appropriate additives and collectors are added to ensure recovery. Organic debris and or metal is removed by hand before crushing to ensure products are free of organic material or items destructive or equipment.

Rock is crushed into a slurry of basic pH water that is recycled on site.

Slurry exits rod mill and goes over a trap and screen to capture small metal, iron scale rust. Lead bullets and other metallic garbage that exists in historic mine dumps and passes through a screen. Any metal or oversized rock that escaped crushing, rock is shoveled into a bucket and it is fed back into the system. Rod Mill has a containment area and wall that allows everything to flow into a sump pit. Should anything fail containment the entire building has a down slope secondary containment.

Metallic captured items are recycled appropriately.

The containments at the site were required for the former chemical company and approved by CDPHE and EPA. MSHA also states the containment is good.

The slurry is pumped to a hydrocyclone to allow sorting of sand. Oversized goes back into the circuit and small slurry goes to the tables. The tables ensure any gravimetric minerals too large to float are safely removed and captured.

The overground materials and slurry go to an additional sump pump pit and are pumped into floatation cells to scrub the slurry of any minerals that are metallic. Or sulfide. This leaves a clean sand that is in compliance with RCRA if it were to be disposed of in a land fill and normally would go to a tailings pond for disposal.... however we do not have a tailings pond. But in the industrial area of the greater metro Denver area many business can use clean washed sand. This is a product called m-sand. It is angular so it bites into it's self. It has a structure to it. It is free of oxidizing minerals and organic materials. So it makes a concrete that is 20% stronger than normal concrete. There are no minerals that can oxidize or expand in the sand so it won't swell or crack from oxidization. Or organic material that would also cause an issue. This product can be used for concrete. Brick making and or land fill capping and or septic system drainage sand.

The slurry goes to a dewatering screen that shakes the sand and forces the water off. This allows for a sand product that is moist to the touch but dries and evaporates quickly. The water goes to a thickening tank to settle any fine silt. The clarified water is recycled. The silt is extracted occasionally and used for brick making as it's a clay.

The water is basic in pH and has also been scrubbed of any metals that precipitate out and are caught in the floatation. The water is recycled.

Water is also consumed by evaporation off the sand. A few gallons per ton. The water is clean and could be discharged but is instead recycled as water is an expensive resource. We do not want to throw it away or discharge it. We have to pay for it. Reuse, reuse, recycle.

Concentrate from floatation and gravity can depending on the ore, be further sorted and refined into classes of minerals by selective flotation.

Separating pyrites from Galena and sphalerite and copper bearing minerals.

These sorted products are bagged and sent off site to be processed by additional companies, trucked and transported to location out of state.

Iron pyrite going to a company that uses it as a fuel because it burns and has half as many BTUs per ton as a ton of coal. This off site facility treats the gassing for the sulfur to manufacture sulfuric acid and ammonium sulfate fertilizer.

Lead concentrate. Zinc concentrate and copper concentrate are also shipped off for processing at smelters that are set up to handle those materials.

Some ultra rich concentrate can have more values in them than the smelters want. Excess gold is a liability and must be removed to ensure a consistent product for their operations. So small vat leaching is done to remove this material and make it to the consistency the smelters want.

All this is enclosed in spill containment areas and is treated to ensure protection of human health and the environment. MSHA oversaw this and hence the labeling on everything to ensure protection of human health and the environment according to federal jurisdiction and standards.

Once vat leached metals are extracted and solutions recycled until it's time to neutralize and treat them. The leached concentrate going to the appropriate smelters with the rest.

This allows for the complete removal and remediation of mine waste and or ore at the facility. And allows multiple products to be manufactured by the processing. All of it going into a beneficial form, use, or products in industry.

This allows for a waste and environmental issues to be cleaned up and sites that are cleaned up are permanently cleaned up. It eliminates acid mine waste drainage from the piles that are removed and processed.

And the products that are made from them are all of benefit to the people of Colorado as this creates jobs that removes the environmental problem and it creates resources that are necessary to industries in the state and out of the state and in the country.

And the entire process is protective of human health and the environment. It uses some mining technology as it's the best way to get the job done as proven working technology and chemistry is required to ensure the treatment of these waste rock and ore piles. It's an environmental problem being turned into a resource.

There would be more in an environmental plan but this is the basics of it.

Can you see any places that are not covered and or have suggestions for Improvement.

I would like to have the site examined so that I can explain what is what so there are not errors or guesses in the report such as the one that was done. And was highly inaccurate.

I want to be working with you on this.

I mainly need the first question answered about if we drop mineral processing, does that negate the need for a permit and reclamation bond. And go that route until we get the part on mineral processing correct so it's clearly understood and can be done correctly and accurately in accordance with the rules as it was stated the DMRS is bound by the rules that govern Mining operations. If we are not doing a Mining operation we are not under that jurisdiction.

If we go for a mining permit we would want to permit the sites we have for mining and or environmental cleanup and remediation.

My only other question is if land owners have a small dump

Under the 1600 sq foot size. Is that just an NOI. If it is larger can a land owner reclaim as they go. Keeping the removal of a dump in that size until it is completely removed and gone. This is my question when it comes to fast tracking the removal of any dumps. Because land owners often don't have the technical knowledge for permitting. I'd want to be able to help them with that and that would be a way to help some people get their lands cleaned up. If they were to do so under those parameters.

Thank you for the time and consideration.

David Emslie

On Wed, Aug 24, 2022, 10:42 AM Ebert - DNR, Jared <[jared.ebert@state.co.us](mailto:jared.ebert@state.co.us)> wrote:  
Good day Mr. Emslie,

As was discussed in detail during last week's Board hearing, DRMS' jurisdiction is defined by statute, Title 34, Article 32, for Hard Rock mining operations. The Divisions has jurisdiction over Mining Operations which is expressly defined to include milling. As was also discussed during the Board hearing, Affected Lands includes areas where a Mining Operation is being conducted. The Board found that the activity at your Highway 72 location constitutes a Mining Operation that requires a permit. The Board's written Order should be sent in the next 30-days. You will need to demonstrate how you will operate multiple uses at the site while complying with the requirements for the Mining Operation. If structures, facilities, equipment, machines, tools, or materials are used for the Mining Operation then DRMS would have jurisdiction over it.

I am not sure what specific document you are referring to as the EPA ROD, but DRMS is very familiar with the concept of removing historic mine waste, tailings, waste rock, etc. and processing it to produce mineral products. We have issued permits for both the mining of this material and the milling. The concept is not new and DRMS supports such activities when the proper permits and requirements are acquired and met. Whether conducted as a hired contractor or a Good Samaritan, proper approvals are still required to remove and process these materials.

DRMS is bound by the Act and Rules that govern Mining Operations, and these include the administrative process involved in securing a permit. Because the process is set forth in Act and Rules, the Division is not able to "fast track" the review process. As you will see upon review of the Act and Rules, there are application requirements, notice requirements, review and comment timeframes, reclamation and performance standards, and a requirement to post a financial warranty.

As found by the Board, DRMS and the Board regulates Mining Operation in Colorado. Per C.R.S. 34-32-116(4) – DRMS will ask how materials milled and how byproduct and/or waste material produced will be handled in a way that is protective of the environment and public health and safety. We will ask for a materials handling and disposal plan and will work with appropriate agencies, such as CDPHE, to ensure wastes are handled and disposed of appropriately.

I suggest you review the following permit files, Gladstone Toll Mill (M2021007) and Hukill Gulch Millsite (M2009076). These permit applications were subsequently approved and could be used as a template to follow. These files can be viewed on our website (<https://drms.colorado.gov/data-search>) using DRMS Weblink (Laserfiche), there are instructions on the website on how to use Laserfiche. These examples are not entirely factually similar to your operation, but they also involve the permitting of a mill and/or the reprocessing of historic tailings and mine waste. DRMS staff is available to answer questions when completing the required forms and exhibits.

It is not within my authority to designate who will process your application, however, your concern is noted and I will communicate this concern to Russ Means, the Minerals Program Director. The DRMS staff will provide assistance, if needed, through the application process. However, DRMS will no longer engage in discussions related to jurisdiction over milling and Mining Operations as that issue has been resolved by a formal Order of the Board. DRMS staff will assist with the 110d application process, but will not re-litigate the issues resolved by the Board.

Jared Ebert

On Thu, Aug 18, 2022 at 12:00 PM David Emslie <[dave@prospectorsgoldandgems.com](mailto:dave@prospectorsgoldandgems.com)> wrote:

Going forward. And again I am open arms and asking for common sense. In order to write a permit I need some questions answered. I also need to have someone who is non hostile I can have dialogue with.

Are refining activities, as they are excluded by statute, would they Part of the mining reclamation Bond and permit. Or is that exempt as stated in the statute?

This would include recycling and sales of scrap metal and materials. Chemical handling and sales of other potential chemicals, fertilizer, fuels, scrap and manufacturing and remanufactured machinery and equipment and repair. As the site is a multi business activity site. Do DMRS employees agree there are different products and business activities that are exempt that occur. Or does DMRS have jurisdiction over these activities now as well? Will there be a distinguishing aspect and understanding of the separation?

If the site is used for refining and manufacturing and recycling of materials. Does the DMRS see that as "not a Mining operation"?

If a Mining permit is written and applied for. What are the requirements for removal of tailings for environmental cleanup and remediation for land owners seeking to dispose of legacy mine waste for those individuals. What do they have to do to see their properties cleaned up and remediated. Is the EPA ROD still considered the best and permanent solution where mine waste is processed and put to economic benefit for the people of Colorado and it's economy and environment. Or is burial and or leaving it as is where it can decompose and affect and pollute ground water a better solution so it can continue to be a problem to human health and the environment?

Would DMRS work to make a fast track system for land owners with small dumps they wish to clean up? There is a great interest for communities that want to see the removal and remediation of these materials. Processing them contributes to the permanent cleanup of the problem. I want to help with that. A mention of a contractor status to do this. What is this program called and how do I get more information on it so this can be done correctly.

Does DMRS have jurisdiction over off site processing if it's taken too a different state outside of Colorado?

Does DMRS have jurisdiction over material brought into Colorado for sorting and processing.

If all mineral concentrate is collected and sorted. And shipped off site out of state, and only inert material that is devoid of any metals or potential acid producing minerals is left. And is sold as construction materials, and those potential acid producing materials are shipped off site out of state for further processing going into industry. Does this activity of cleaning and preparation and sorting pose a threat to human health and the environment? According to RCRA the answer is no, it's safe to dispose of in a land fill or sell as construction materials. Is this still correct?

Can DMRS employees work with me to reasonably solve issues going forward?

If a general plan is throughput of materials to render those materials into products and inert sand. All of those products are shipped off site and put the use and sold into different industries. The plan was to use the Arvada location to sort and clean and refine mine waste and ore into useful products. Simultaneously creating jobs for Colorado making an economic benefit to the state it's people and also have an environmental benefit to reduce acid mine waste drainage and give a cleaner and more asthenic look to the lands and the Colorado environment and mountains that we all love so much and want to see taken care of.

In order to do that job some technology and processing is required that is also used in the Mining industry. Excavation and trucking, transportation of the material, and of course the cleaning and processing of that material.

Common sense would dictate removal to a processing center in a centralized industrial zone in the greater Denver area makes more sense because there would be no waste generation as all the products are easy to ship and put into industry to appropriate businesses that can handle them. It keeps such a processing facility out of sight in the mountains and keeps from having to have tailings and waste disposal adding to the very visible legacy mine waste. It is commonly accepted that it's better to restore the ground and clean it up. Restore and reclaim our scenic mountains permanently and allow for the land to heal from the activity from the past.

That is my goal and mission and a business can be made of doing it with out cost to the taxpayers.

I should hope we have a similar goal here as what I want to do and see is what is detailed above. There are very few small business that have the people and ability and understanding of how to do this correctly to ensure correct processing who understand the chemistry and business model to make all that happen. All backed up by proven science.

I would invite you to see and actually ask questions and be shown how the processes work. What is entailed and what was misunderstood. This is why I wanted to be present during inspection. To show and ensure that everything that was wrong in the report was not made. There has to be open dialogue and understanding. Not hostilities. Every other agency that has been in contact has been and recognized and been able to ask questions and get answers to questions that show either compliance with the laws as written or codes and or exemption and in every single case, if there was an oversight it was and is immediately corrected. And even suggestions that are not required but we thought they were good ideas and suggestions are put into place as an it's about responsibility.

It can not be with or by individuals that have a conflict of an interest or hostility, such as individuals currently under litigation as contact with those individuals is not appropriate.

I am happy to work with non hostile people who have a common goal of ensuring proper processing and remediation of these materials and making this State a better place. Because it won't happen on its own.

I feel that explanation of scientific processes and education on what I am doing would be helpful so that the processes can be understood by DMRS employees to guide them through and work towards mutual understanding and getting the over all goals accomplished.

I look forward to your response to each question as we move forward.

David Emslie

On Wed, Aug 10, 2022, 11:06 AM David Emslie <dave@prospectorsgoldandgems.com> wrote:

Also to be clear. So does the reclamation Bond change depending on what we are cleaning up and rendering into other products. So once those items are gone the bond is done or changes. Does this require constant management and oversight to decide who writes checks back and forth daily depending on sales and changes.

So if I interpret the reclamation correct if that changes or is different as different items are refined. Then this estimate is always changing as well?

Good thing we can remediate it all on site with the equipment we have to render it all nutralized and or sold. Something we have the right to do.

The whole reason of building this plant and refinery is to eliminate the acidity of historic mine waste and ore and render it inert and into useful products.

We can easily demonstrate this.

Again. This agency is supposed to be by law. Working with us and not against us. To solve problems. This does not mean imposing illegal actions against my company and myself.

DMRS can do this voluntarily and start over. Or I can have a federal judge force cooperation and some house cleaning can be done.

One way or another we will be cleaning up the environmental issues of the state if the state wants too or not under federal jurisdiction. Will DMRS be in the right or wrong side of history is what will be determined.

On Wed, Aug 10, 2022, 7:18 AM Ebert - DNR, Jared <jared.ebert@state.co.us> wrote:

Good morning Mr. Emslie,

DRMS would direct you to obtain a 110d permit. The application can be found on our website (<https://drms.colorado.gov/forms/minerals-program-forms>). The requirements for such a permit are outlined in the Hard Rock Rules and Regulations (<https://drms.colorado.gov/rules-and-regulations>). A 110d application fee is \$2,875.00. To obtain a permit you would also need to post a financial warranty in the amount it would cost the State of Colorado to conduct reclamation at the site. The Division has conducted an estimate of the cleanup of the mill site, this estimate is attached. DRMS staff will be requesting the Board require the posting of a bond in the amount of \$130,323.00 should they find a violation has occurred at the site.

Regarding DRMS' interaction with other agencies, we have a number of Memoranda of Understanding documents that outline DRMS' jurisdiction and the various jurisdictions of these agencies and how we interact with each other. These MOUs can be found on our website

(<https://drms.colorado.gov/programs/minerals-regulatory-program/memoranda-of-understanding>).

Jared

On Tue, Aug 9, 2022 at 3:10 PM David Emslie <[dave@prospectorsgoldandgems.com](mailto:dave@prospectorsgoldandgems.com)> wrote:

I can not find any place where there is paperwork for a milling permit for off site milling not conducted on affected lands.

I can not locate anything on the website as far as requirements for this kind of permit.

So please direct me to what the criteria are. And what this permit looks like, costs, standards, requirements and what this jurisdiction looks like because there is nothing on the DMRS website with any information on what a off site milling permit looks like or what the process is. Because there is no affected ground.

How can one get a permit for something and be held accountable for not having a permit when there is no such permit to be found?

Seriously. What is the answer to this question? Why is there no permit for off site processing operations not conducted on affected land. It is impossible to be in compliance when there is not such a permit in existence. And also no law in existence.

What are the standards of the permit. The costs. The scope. And why are not hundred of other business that use mines products also required to have such a permit? When operations are conducted off site. And such mines products are used in industry and turned into other products. Or sorted. Or refined. We make construction materials and it says in the law off site milling to make construction materials is exempt. And refining. Because it does not affect the land.

There must be equal protection under the law. It has to cover everyone or no one. Unfavorable discrimination is not acceptable. Is the DMRS going after all business for a reclamation Bond for processing mined products in other operations? Why can't I find copies of these other business that I know used mined products not on the list of permits?

Please answer these questions of what a reclamation permit looks like for off site operations not conducted on affected land and done indoors with no waste.

Also include what activities DMRS jurisdiction is in such an operation that is not covered by other agencies and codes. And since they are under codes and jurisdiction of others why drms also needs to surpland their jurisdiction?

Never once have we been told what or where or been able to find a milling permit. And when I ask the questions it always goes unanswered as to what it entails. Just that we need one. And they don't exist.

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Jared Ebert

Senior Environmental Protection Specialist

**\*I am working remotely, please feel free to call my cell at (720) 413-6466**



**COLORADO**  
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