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Dustin Czapla
Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80203
303-866-3567

Delivered Via Email and Hard Copy

RE: Pride of America Mine, Colorado Stone Quarries, M-1999-058
Technical Revision - 06 to Modify Fuel Locations at the Pride of America Mine

Mr. Czapla:

This letter provides Colorado Stone Quarries' (CSQ) written notice to the Division of CSQ's relocation of its main fueling area and primary power gensets at the Pride of America Mine (PAM) in Marble, Colorado. The fueling area and primary gensets were previously located adjacent to Portal 4. In order to accommodate approved expanded mining operations, on or around September 17, 2019, the fueling area and primary gensets were moved to the Franklin Pad area after the generators were recommissioned and returned to service following regular maintenance and servicing in the summer 2019. The previous and current fuel areas are shown on the enclosed map, titled "PAM 200220-SPCC Map."

As you are aware, on October 11, 2019, the PAM experienced a diesel fuel spill of approximately 5,500 gallons from the primary power generators' day tank into the housing conex, which then leaked onto the underlying road fill. *See October 11th, 2019 Diesel Spill Report*, dated November 27, 2019 as filed with the Division. Following the immediate clean-up efforts undertaken following the spill, DRMS directed CSQ to house the entire fueling system in a secondary (and with respect to the bulk tanks, a tertiary) containment liner.

As of November 18, 2019, the entire fueling system is included within a secure containment liner. The fueling system includes the two primary power gensets and their 100-gallon day tank (in a conex), a 12,000-gallon bulk diesel tank used to fuel the generators, a 6,000-gallon diesel tank used to fuel heavy equipment, and a 1,000 gallon gasoline tank used by the on-highway vehicles that transport miners (*see Figure 1, below*). Each of the $\geq 1,000$ -gallon tanks are double walled and are capable of holding 110% of each tank's respective contents. The generator day tank is double walled.



Figure 1. Catwalk access to inspect tanks within the liner. The white tank is the 12,000 bulk diesel tank while the red tank is the 6,000-gallon diesel tank used to fuel mobile equipment and portable nurse tanks. Notice the primary power generators conex in the background and the emergency response spill kit in the foreground. Photo taken January 16, 2020, view to the south.

The liner is a 40mil XR5 Liner made of Hydroxy-Terminate Polyether (HTPE) supplied by Raven CLI Construction, Inc. Figure 2 below details the installation of the liner on the Franklin Pad. The footprint of the liner is 35' x 50' and drapes over the three-foot-tall marble blocks that serve as the containment wall. The liner is secured to the marble block containment wall on all four sides. Another impermeable, eight-ounce non-woven geotextile membrane is located below the tanks to cushion and protect the liner from potential tank placement damage.

In the tank area, the lined containment depth is approximately four-and-a-half feet. In the conex area, lined containment is three feet deep (Figure 2). This elevation change is the result of the conex being approximately one-and-a-half feet higher than the tanks to ensure proper return flow of fuel in the event the generator day tank becomes overfilled. Using the uniform depth of three feet of containment height, the liner can provide at least 5,250

cubic feet (39,270 gallons) of available storage space. The combined tanks within the liner hold 19,000 gallons of fuel at maximum storage capacity, a very uncommon scenario at the PAM. In the event that every tank was to drain completely, also highly unlikely, a combined total of approximately 2,540 cubic feet would be released to the containment area. Therefore, the liner providing secondary containment (tertiary with respect to the large tanks) is capable of holding two times, or 200%, of the maximum storage capacity of all tanks located within the liner.



Figure 2. Liner installation on November 18, 2019. Notice the generator conex is approximately one-and-a-half feet higher in elevation than the tanks. View to the west.

As a result, the liner can hold a substantial volume of precipitation (snow and rain) without exceeding the capacity of the liner (Figure 3). Assuming a snow water equivalent in the area is roughly one inch of water for every foot of snow, the liner can hold an additional two feet of liquid (or twenty feet of snow) in the event that all tanks were to also drain into the liner. The 100-year 24-hour precipitation event is 3.25 inches¹ of water. Therefore, the liner, with its current installed geometries, is capable of holding all the fuel from the three $\geq 1,000$ -gallon tanks located in the liner, in addition to approximately seven back-to-back 100-year storm events.

¹ https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html



Figure 3. Fuel tanks, generator conex, and containment liner marble wall with approximately one-and-a-half feet of snow from the previous 96-hour snow fall. Photo captured February 11, 2020.

During the summer months following the spring thaw, water from precipitation events may need to be removed from the liner in order to maintain appropriate retention capacity. Should such a need arise, the company will work with its consultant to remove such water appropriately, which may include pumping it into water trucks and transporting it to an approved treatment or disposal facility. This pumping and proper disposal activity will occur as needed.

Should the location of the fueling area and the primary generators be changed in the future, a Technical Revision will be submitted, as required.
Please do not hesitate to contact me with any questions.

Regards,

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Attachments:

- PAM 200220-SPCC Map.pdf

CC: Daniele Treves (CSQ); Ben Miller (GLA), and David Baumgartner (Gunnison County Attorney)



LEGEND

Permit Boundary

Drainage Direction

Berms/Barriers

Fuel Tanks

SPCC Map

Pride of America Mine

Colorado Stone Quarries, Inc

DRMS Permit Number: M-1999-058

MSHA ID: 05-04438

Date Code: 200210

Mine Entry Location: Latitude: 39.036066 Longitude: -107.168677

State: Colorado County: Gunnison Nearest Town: Marble (4.6 Miles)

Section: 1 Township: 12S Range: 88W PM: 6th

Map Scale: 1"=100'

0

100

200

300

File Name: PAM 200220.dwg