



COLORADO

Division of Reclamation,
Mining and Safety

Department of Natural Resources
1313 Sherman Street, Room 215
Denver, Colorado 80203

January 8, 2018

Matthew Welte
Summit Brick & Tile Co.
P.O. Box 533
Pueblo, CO 81002

RE: Adequacy Review #3, AM-03, Fox #1 Clay Mine, Permit No. M-1977-219

Dear Mr. Welte,

The Division of Reclamation, Mining and Safety (Division) has reviewed the content of the December 20, 2017 adequacy response for the Construction Materials 112c Permit Amendment Application (AM-03) for the Fox #1 Clay Mine, File No. M-1977-219, and submits the following comments.

During the AM-03 public comment period the Division received timely objections. Pursuant to Rule 1.4.9(2)(a) and 1.7.4(2), the Division has scheduled the application for consideration by the Mined Land Reclamation Board during the February 21-22, 2018 Board meeting. **Pursuant to Rule 1.4.9, on or before January 30, 2018, the Division shall issue its recommendation to the Board for approval, approval with conditions, or denial of the amendment application; therefore, a response to the following adequacy review concerns should be submitted to the Division as soon as possible.** To allow the Division adequate time to review your responses to the adequacy issues, please submit your adequacy responses no later than one week prior to the recommendation date. Please respond to this letter with the requested additional/updated information on permit replacement pages and/or exhibits and summarize each response in a cover letter titled "Adequacy Review Response #3, AM-03, M-1977-219".

The review consisted of comparing the application with specific requirements of Rules 1, 3, and 6 of the Minerals Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials. Any inadequacies are identified under the respective exhibit.

EXHIBIT D - Mining Plan (Rule 6.4.4):

55. In response to Adequacy Item #45, the Applicant provided a revised and updated Blasting Plan in accordance with Rule 6.4.4(i) and Rule 6.5(4). The Division has reviewed the new submittal and provides the following inadequacies:

55.1 The Applicant did not provide a pre-blasting survey plan in the Blasting Plan. Please provide the Division a copy of the pre-blasting survey plan.

55.2 The Applicant did not provide a flyrock control plan in the Blasting Plan. Please provide the Division with a plan to control flyrock from damaging nearby permanent man-made structures.



- 55.3** The Applicant states all non-owned structures are located and the distance to these structures are measured and recorded. The Applicant also states the closest non-owned structure is 1,400 feet from the blast area. Please provide a map and list of all dwellings and the distance to the dwelling within one-half mile of the blasting areas.
- 55.4** The typical sandstone and clay thickness details within the Blasting Plan are in conflict with details within the Mining Plan. Please revise the sandstone and clay thicknesses to match the information in the Mining Plan.
- 55.5** The Applicant states all blasts will be monitored using seismic instruments. The seismic instruments will measure ground vibration and peak particle velocity. Please commit to recording the peak particle velocities in three mutually perpendicular directions from the blasting site. The maximum peak particle velocity shall be the largest of any of the three measurements.
- 55.6** The Applicant states a seismograph will be placed at the property line between the blast and the home that is owned by the Applicant and that other seismographs will be placed at nearby residences if deemed necessary. Please identify the location of all seismographs for all areas proposed to be blasted.
- 55.7** The Blasting Plan does not state how air over pressure will be measured and where the monitoring instruments will be located. Please provide these details as well as the lower frequency limit of the planned measuring system in Hertz (Hz).
- 55.8** The Applicant states the levels desired for ground vibration and air over pressure have been set well below that of the State of Colorado requirements. Please provide these requirements.
- 55.9** The Applicant states guards will be placed at all roadways that access the shot area. Please provide more details regarding the distance from the blast area to the guards and clarify when Siloam Road will need to be closed.
- 55.10** The Applicant states the blaster will physically go and check the blast areas and ensure that there are no unfired explosives before giving the all clear. Please provide a Misfire Procedure Plan in the event the blaster finds unfired explosives.
- 55.11** Although the Applicant provided some details of the blasting records in the Blasting Plan, the blasting reports should contain the following minimum information:
- a. Name of the operator conducting the blast
 - b. Location, date, and time of blast
 - c. Name, signature, and license number of blaster-in-charge
 - d. Identification, direction and distance, in feet, from the nearest blast hole to the nearest permanent man-made structure
 - e. Weather conditions, including temperature, wind direction, and approximate velocity

- f. Type of material blasted
- g. Sketches of the blast pattern including number of holes, burden, spacing, and delay pattern
- h. Sketches shall also show decking, if holes are decked to achieve different delay times within a hole
- i. Diameter and depth of holes
- j. Types of explosives used
- k. Total weight of explosives used per hole and maximum weight of explosives used per 8-millisecond period
- l. Initiation system
- m. Type and length of stemming
- n. Mats or other protections used
- o. Type of delay detonator and delay periods used
- p. Number of persons in the blasting crew
- q. Reasons and conditions for each unscheduled blast

55.12 Additionally, please commit to maintaining the following information, at minimum, for seismographic and airblast records:

- a. Type of instrument, sensitivity, and the calibration signal of the gain setting or certification of annual calibration
- b. Exact location of instrument and the date, time and its distance from the blast
- c. Name of the person and firm taking the reading
- d. Name of the person and firm analyzing the seismographic record
- e. The vibration and/or airblast level record

EXHIBIT E - Reclamation Plan (Rule 6.4.5):

56. In response to Adequacy Item #46.2, the Applicant states they have contacted NRCS and they provided an updated seed mixture and will likely revise the other 1990 reclamation recommendations. If NRCS has provided their updated reclamation recommendations to the Application, please forward these to the Division during the AM-03 review period. If the NRCS recommendations will not be prepared until after the close of the AM-03 review period, please commit to submitting these as a Technical Revision to the approved Reclamation Plan.

EXHIBIT F - Reclamation Plan Map (Rule 6.4.6):

57. The Division believes the cross section on the Exhibit F Reclamation Plan Map incorrectly shows the clay seam intact under the backfill, which also results in errors associated with the backfill volumes in the December 20, 2017 Exhibit L. Please confirm that the clay seam will be mined and update this cross section.

EXHIBIT L – Reclamation Costs (Rule 6.4.12):

58. The Division has completed the Financial Warranty calculation for the proposed operation. Using the proposed AM-03 Mining and Reclamation Plans, **the reclamation cost estimate has been calculated in the amount of \$213,000.00.** Please review the enclosed figures as soon as possible and contact our office if you have any questions or find any calculation errors.

EXHIBIT R - Proof of Filing with County Clerk and Recorder (Rule 6.4.18):

59. Any changes or additions to the application on file in our office must also be reflected in the public review copy. Please submit proof that the public review copy has been updated with a copy of the response to this adequacy letter.

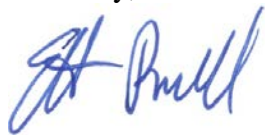
EXHIBIT S - Permanent Man-Made Structures (Rule 6.4.19):

60. In response to Adequacy Items #47 and #54, the Applicant has commits to not mining within 200 feet of the permit boundary and updated the cross section on the Exhibit F Reclamation Plan Map to reflect this 200-foot buffer. In accordance with Rule 6.4.19(b), the 200-foot buffer is acceptable as the maximum depth of the operation is 54 feet, thus the conservative slope of 3H:1V is well within the permitted area. *The Division accepts this commitment and no further response is needed.*

This concludes the Division's third adequacy review of AM-03. This letter shall not be interpreted to mean that there are no other technical deficiencies in AM-03, as other issues may arise when additional information is supplied. Be advised that the 112c permit amendment application for the Fox #1 Clay Mine may be deemed inadequate, and the application may be recommended to be denied on January 30, 2018, unless the above mentioned adequacy review items are addressed to the satisfaction of the Division. **If more time is needed to complete the reply, the Division can grant an extension to the decision date. This will be done upon receipt of a request for a specific amount of additional time. This must be received no later than the deadline date.**

If you need additional information or have any questions, please contact me at Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, by telephone at **303-866-3567 x8132**, or by email at elliott.russell@state.co.us.

Sincerely,



Elliott R. Russell
Environmental Protection Specialist

Enclosure: Reclamation Cost Estimate AM03 M1977219

Cc: Wally Erickson, Division of Reclamation, Mining & Safety
Steve O'Brian with Environment, Inc., Environment-inc@outdrs.net