

## M-1978-009 Apache Mine Technical Revision Inert Fill Import Response to Preliminary Adequacy Review for TR-01

1 message

**Jason.McGraw@generalshale.com** < Jason.McGraw@generalshale.com > To: "tim.cazier@state.co.us" < tim.cazier@state.co.us >

Tue, Nov 18, 2014 at 9:54 AM

Tyler,

Attached is General Shale's response to your adequacy review for TR-01 the importation of scrap block and scrap brick into the mine. I will not send a hard copy in the mail. If you would like a hard copy please let me know.

If you have any questions please feel free to contact me.

Jason E. McGraw, P.E.

Mine Supervisor

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## 3 attachments



Apache North Pit Site Map TR-01 11-17-2014.pdf



2014 Apache DRMS Fill Notice TR-01 response 01 11-12-2014.pdf 39K



November 18, 2014

Colorado Division of Reclamation, Mining, and Safety Mr. Tim Cazier Environmental Protection Specialist 1313 Sherman Street, Room 215 Denver, CO 80203

Re: M-1978-009 Apache Mine, El Paso County, Colorado

Technical Revision Inert Fill Import Response to Preliminary Adequacy Review for TR-01

Dear Mr. Cazier:

General Shale Brick, Inc. (GSB) has received your preliminary adequacy review letter dated September 30, 2014 for the Apache Mine (Apache) regarding the importation of scrap brick and scrap block (materials). GSB offers the following responses to your comments:

1. Please provide a map which depicts the approximate location where the scrap brick and block will be backfilled.

The materials will be placed in the north pit at Apache. Please see the attached maps named Apache Mine Site Map and Apache Mine North Pit Map.

2. Please indicate if the final contours which are depicted on the most recently approved Reclamation Plan Map will change. If so, please provide a revised Reclamation Plan Map which shows the proposed topography of the area with contour lines of sufficient detail to portray the direction and rate of slope of all reclaimed lands.

The area that will be backfilled with the materials is located on a flat mesa. The current reclamation map shows the mesa as flat with a slight rise in the center. We do not anticipate importation of the material will change the existing reclamation plan. In fact, the materials will help GSB backfill the existing mine area to the approximate contours as shown on the existing reclamation plan map by providing additional back fill materials.

3. The Division is concerned with the potential for sinkholes developing over the long term due to piping where voids occur and/or compaction is sufficient. The formation of sinkholes is not considered compatible with the approved rangeland post-mining land use (reference Rule 3.1.5(9)(e)). Per Construction Materials Rule 3.1.5(9)(f), please provide additional detail on how the scrap brick will be blended with overburden material so that settling of the backfilled area does not occur. In addition, describe how compaction of the backfilled material will be achieved.

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## <u>Blending</u>

The majority of the imported material will be scrap block. Scrap block is a generic term for the waste material that is generated from the block plant located in Colorado Springs. The scrap block will include:

- a. Pieces of broken block typically hollow 8"X8"X16" size; rarely a whole block found.
- b. Sand and gravel from the block making process that was discarded.

Therefore, the scrap block material appears to be fairly well graded, meaning the scrap block has a broad range of particle sizes, and should contain very few voids. The materials will not be blended with the existing overburden because GSB believes that due to scrap block's well graded nature it does not need to be blended.

If any scrap brick is imported into Apache, the scrap brick will be blended with the scrap block using a front end loader (loader). The truck load of scrap brick will be dumped adjacent to the scrap block truck load. The loader will blend the scrap brick and scrap block truck loads together into a homogenous stockpile. The loader operator will examine the homogenous stockpile to see if the stockpile is well graded. If the operator determines that additional scrap block is needed, then the operator will blend in additional scrap block until a homogenous well graded stockpile is created.

## Compaction

The materials will be placed at the floor of the previously mined out pit in 1-2 foot thick layers, see attached Apache North Pit Map. The loader, with a full bucket, will wheel roll each 1-2 foot thick layer until the materials are tight, meaning the tires sink 1-2 inches into the fill based on visual inspection of the fill. If necessary, the loader operator may add water to the fill to assist with compaction. Additional 1-2 foot thick layers will be built on top of the previous layers until the bench matches the elevation of the clay stockpile pad area.

4. The Operator is proposing to import scrap brick and block over a period of two years, with the imported material remaining in a stockpile until the operation enters final reclamation. Please note that the Division must bond for all non-product stockpiles which will be used during reclamation. Alternately, the Operator may blend and backfill the scrap brick and block into the pit as it is imported to the site. If the scrap brick is immediately backfilled, then an adjustment of the financial warranty will not be necessary. Please clarify if the scrap brick will be stockpiled or if it will be backfilled upon importation of the material.

Currently, the scrap block is hauled campaign style meaning that it is brought in during a 1-2 month time frame. The frequency of hauling campaign is dependent on the quantity that is generated by the block plant and could be every year or every other year. At the completion of each hauling campaign, there will be no stockpiled materials remaining. Therefore, no financial warranty increase is necessary.

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In addition, GSB would like to clarify that they anticipate importing approximately 1,000 tons of scrap block and 250 tons of scrap brick each year. The anticipated end date for the backfilling is when mining of the mesa is complete in stages 3 and 2B. This could be 25 to 50 years depending on market conditions, geology of the deposit, and/or if the block plant continues operations. Once reclamation is complete at the north pit and GSB desires to continue to backfill another pit at Apache, GSB will submit another technical revision with the details.

Please feel free to contact me with any questions at (303) 783-3058 or by email at jason.mcgraw@generalshale.com.

Sincerely,

General Shale Brick, Inc.

Fazon & Mysen

Jason E. McGraw, P.E.

Mine Supervisor



