



United States Department of the Interior

BUREAU OF RECLAMATION

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IN REPLY REFER TO:

WCD-Tartichoker
LND-6.00

FEB 20 2014

Ms. Kate Pickford
Environmental Protection Specialist
Colorado Division of Reclamation,
Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80203

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FEB 21 2014
Division of Reclamation,
Mining & Safety

Subject: Agency Comments for Technical Revision to Oldcastle SW Group, Inc. dba Four Corners Materials (FCM), Animas Glacier Gravel (AGG), Colorado Division of Reclamation, Mining and Safety (CDRMS), Permit No. M-2011-028, Animas-La Plata Project, Colorado and New Mexico

Dear Ms. Pickford:

Thank you for giving the Bureau of Reclamation the opportunity to provide comments on the proposed technical revision to AGG Permit No. M-2011-028 by Four Corners Materials, dated January 22, 2014. In brief summary, the proposed revision does not address our previous concerns. We are also very concerned about the recently constructed dam and have not received any information about the design of the structure or the State's regulation of dam safety, etc. Following are more detailed comments for your consideration:

1. CDRMS letter dated August 28, 2012 required the technical revision be submitted to address final *design* of the drainage issues. We have not received a design, and FCM has already constructed the retention pond and dam. This was not to be allowed according to the above mentioned letter.
2. FCM letter dated January 22, 2014 references Rege Leach's email dated October 24, 2012 which states that the 72-hour maximum retention time should not *presently* apply, since the Animas River is not *currently* over appropriated. What is the estimate for the time frame in which it *will* apply, and how will FCM ensure that this happens? We are concerned about long-term impoundment of 220 AF of water, no unlimited retention time and impounded by a structure that has no design, had no construction controls, has no

means of discharge, has no emergency spillway, and it is located immediately upstream of millions of dollars of federal water resource infrastructure for the Animas-La Plata Project. Rege indicated that Wright Water Engineering has been consulting for the AGG project, however, Reclamation has not received any information. The reference seems to indicate that a longer than 72-hour retention will be needed for turbidity control and that the pond will be forever full of water, to be used as a settling pond for operations, instead of a storm water retention pond. Please provide the support for these statements.

3. FCM letter dated January 22, 2014 states the northern drainage will not be impacted by the pit. We disagree and point to the fact that the dam is earthen, without any erosion protection designed (or built) on the downstream embankment face, and does not appear to have been compacted. This is highly erodible and will drain onto Reclamation lands. At a minimum, downstream face erosion protection should be installed and judicious use and maintenance of best management practices.
4. Drainage Report – Amendment 1 dated January 22, 2014. The report states that it is an as-built (after the dam was constructed) assessment of storm water volumes only. This does not address our previous concerns.
5. Drainage Report – Amendment 1 dated January 22, 2014. The Colorado Office of the State Engineer should be immediately notified of the constructed feature, as it would fall within the jurisdiction of the Rules and Regulations for Dam Safety and Dam Construction. The structure is greater than 10-feet tall from the lowest point and the impoundment has a capacity greater than 100 AF, which would be a Class I or Class II Hazard Classification, per State guidelines, and there appears to have been zero consultation with or permitting of the already constructed dam.
6. Drainage Report – Amendment 1 dated January 22, 2014. The report indicates the reservoir will be used for operations and not for storm water retention only. Because the reservoir is intended to impound some undetermined amount of water at all times, the drainage study needs to be expanded to assess the impacts of various storm return periods, on top of various impoundment volumes at the beginning of the storm event. All studies seem to begin with zero impoundment.
7. Drainage Report – Amendment 1 dated January 22, 2014. The report indicates that a 4.8 AF pond was constructed in the pit, independent of the dam. How was this constructed? How was it sized? What is its purpose?
8. Drainage Report – Amendment 1 dated January 22, 2014. The report indicates that “Swale A” has been removed. Why? Note that the revised “drainage Basin Map” no longer shows swales “B” and “C”. The new dam has been constructed across “Swale C”. Please provide some information to the thought process here. Will a swale be continually constructed along the west perimeter as mining operations move south, or how do you plan to deal with drainage in the newly disturbed areas?

9. Drainage Report – Amendment 1 dated January 22, 2014. The drainage study does not include the expanding mining area to the south, which is assumed to also drain to the reservoir, and would increase the drainage area approximately two fold.
10. Drainage Report – Amendment 1 dated January 22, 2014. There is no information provided to show the limits of a 220 AF impoundment, or how that volume was calculated. Please include an inundation area and calculations.
11. Drainage Report – Amendment 1 dated January 22, 2014.
12. Drainage Report – Amendment 1 dated January 22, 2014. There is still no dewatering plan, or no information on the quantity of water to be used for operations, yet the hydrologic studies all start with an empty pond, and reservoir.
13. Drainage Report – Amendment 1 dated January 22, 2014. In addition to comments above, our main concern is about the dam. At minimum, the following information should be submitted:
 - Design drawings and specifications
 - Geotechnical report
 - Materials classification report
 - Construction reports and other documentation of construction means and methods
 - Materials reports documenting all material properties in structure, before and after construction
 - Lab testing data for moisture-density control
 - Freeboard analysis
14. Drainage Report – Amendment 1 dated January 22, 2014. The single “dam” drawing in the previous drainage report lacks the following:
 - Erosion protection for both faces of the embankment
 - Dimensions of critical features (such as the height of structure)
 - Filters or drains, if needed
 - Instrumentation, if needed
 - Baseline study of existing seepage
15. As follows are additional comments concerning the constructed feature:
 - Appears to not have been compacted, other than equipment travel
 - Materials appear to be solely cut waste from road construction
 - Does not appear to have a clay core, per design
 - Side slopes appear to exceed the 3:1 design
 - Does not appear to have a key trench, per design
 - There is no emergency spillway, per design
 - The gradations are certainly out of “specification” notes
 - The foundation was likely never treated in any fashion, if needed
 - There was certainly no grouting or dental concrete used, if needed
 - We have no idea about percolation through the foundation.

As submitted to CDRMS and our comments above, it appears there are significant design, engineering and environmental problems associated with the proposed technical revision. We recommend a follow-up meeting with CDRMS and FCM to address our comments, questions and concerns. Please contact me in Durango to schedule the meeting or any questions, at 970-385-6557 or email TArtichoker@usbr.gov.

Sincerely,



Tyler Artichoker
Facilities Maintenance Group Chief

cc: Mr. Russ Howard
General Manager CPMM, CMRP
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and Replacement Association
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