UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
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DENVER, COLORADO 80202-2466

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Mail Code line for Max ⇒ 8EPR ?

J. David Holm, Director
Colorado Water Quality Control Division
Colorado Department of Public Health and Environment
4300 Cherry Creek Dr. S.
Denver, Colorado 80222-1530

SDMS Document ID
1060694

Dear Dave:

The Environmental Protection Agency (EPA) commends both the State of Colorado and Sunnyside Gold Corporation (SGC) in your innovative approach to problems encountered in final closure of the Sunnyside Gold Mine. Furthermore, the EPA is pleased that Colorado has chosen to use a watershed/trading approach as one step toward achieving the goals of improving water quality in the Animas River. As active members of the Animas River Stakeholders group, EPA understands and supports the concepts of community-based environmental protection.

As the EPA is not a party to the Consent Decree between the State and SGC, we and the stakeholders appreciate the opportunity to provide comments for your consideration on the agreement. Also attached are formal comments on the permits. The draft CPDS permits, as with all NPDES permits, must function as stand alone documents regardless of the existence of the Consent Decree. EPA understands that this Consent Decree was initiated in order to address the issue of permits being required for discharges to groundwater that are tributary to surface water. It should be made clear that this issue has only been resolved due to to facts and considerations of this case. Suggested language is attached in the comment section of this document.

Although EPA is supportive of the concepts outlined in the Consent Decree and the associated NPDES permits, a few concerns remain. We look forward to working with you on resolving these issues.

Sincerely,

Max H. Dodson
Official Title Block

Attachment

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Specific Consent Decree Comments

1. Page 12, Paragraph 8:

   a. Although Section VIII states the "A List" projects must be completed prior to a permit termination request, it would probably be clearer to state that in this section. Suggested change/addition:

   "After completion of the "A List" projects, SGC may request a Permit Termination Assessment. Within sixty days of a request by SGC, the Division will complete a Permit Termination Assessment pursuant to Section VIII of the Consent Decree."

   Is there a provision in the Consent Decree to substitute projects on the A List for other projects if the owner's permission cannot be obtained? Already addressed?

2. Page 13, Paragraph 8(c) and Page 24, Paragraph 22

   EPA's position is that permits are required for discharges of groundwater tributary to surfacewater. Therefore, we would suggest that based upon the facts of this case, the sentences on page 13, paragraph 8(c) and page 24, paragraph 22 be removed and replaced with language as follows:

   "The Division agrees, based on the facts of this case, that in the event of a Successful Permit Termination Assessment pursuant to paragraph 14, no future CDPS point source permits will be required of SGC for seeps or springs which emerge or increase in the Upper Animas River or Cement Creek drainages following installation and closure of bulkhead seals in the American or Terry Tunnels."

3. Page 13, Paragraph 9 (a),

   The summary of work provides a brief discussion of the plugging of the Terry Tunnel. It does not make mention of the need to add buffering amendments to the fluid behind the bulkhead during the flooding of the workings. It was our understanding that this action was agreed upon as a means of raising the pH to reduce dissolved metal loading in the workings. This is a critical element of the mine plugging proposal. It should be mentioned in the summary. The target pH in the workings (or pH range) should also be mentioned.

4. Page 18, Paragraph 10 (b),

   The sampling at the four mines identified in this section must include flow measurements in order to determine if the plugging has resulted in loading changes. The monitoring

Should go latter in comments

requirements of the CDMG permit should also be mentioned. Because this information was not readily available, we suggest that SGC be required to identify new springs and seeps in the vicinity of these locations and sample them if the flow increases measureably.

5. Page 14, Paragraph 9 (a)

For the determination of equilibrium - what exactly is meant by the "rate of rise has leveled off?" EPA suggests adding another appendix to the Consent Decree which describes the process for determining if equilibrium has been met. Does the notice by SGC that equilibrium has been reached need to provide supporting data and describe how SGC reached that conclusion? The text is a little unclear concerning what exactly is required to be provided. Is it appropriate to reference the DMG permit and technical revisions?

What does "maintenance" of the portion of the American Tunnel downstream of the SGC property mean? This term should be defined so it is clear what action(s) will trigger the release of SGC from its permit for the American Tunnel.

6. Page 15, Paragraph 9 (b) and Page 21, Paragraph 13

Work plans for each of the mitigation projects covered by the draft permit CO-0044768, and listed in Appendix B, should be reviewed and approved through the permit process. HRT → A specific time frame for receiving additional workplans should be established in the Consent Decree and mine remediation plan permit. We suggest wording similar to: "If SGC notifies the Division that they intend to perform additional remediation projects, then SGC will submit work plans within sixty (60) days of the notification or within a reasonable timeframe based on the accessibility of the site for planning and the complexity of the project."

7. Page 15, Paragraph 9(c) and Page 22, Paragraph 14 (g)
We are pleased with the commitment to treat Cement Creek in order to mitigate short-term impacts and to allow a "buffer" until the mine remediation projects have adequate time to improve water quality. However, we have some concerns regarding a lack of specificity concerning Cement Creek treatment in the Consent Decree. We have three main issues regarding Cement Creek treatment: 1) quantity of flow to be treated during which months; 2) what will trigger the cessation of treatment of Cement Creek; and 3) the response to exceedances of the monthly zinc average.

This sounds like it came from summary in the letter. The 3 issues are kind of general ⇒ are they addressed in other comments in more detail?

8. Page 16, Paragraph 10

Monitoring detection limits set within the Consent Decree are fine; however, additional reference should be made to monitoring methods approved in 40 CFR Part 136. Furthermore, diel (24-hour) flucuations in flow and concentrations observed in the stakeholders sampling efforts make it difficult to compare data taken at different times of day within the Animas Basin. Therefore, we recommend that Appendix A, attachment 1 have time of day references and that all future sampling be taken within a similar time frames, particularly during runoff periods.

9. Page 17, Paragraph 10 (a) (iii)

The Consent Decree states monthly sampling of the American Tunnel Treatment Facility Effluent. Is this the same location as outfall 004A as specified in the permit? If so it should so indicate.

Comment #4 →

10. Page 19, Paragraph 11

Will SGC seek the necessary approvals/UIC permit prior to commencing injection of the alkaline water into the mine pool?

11. Page 23, Paragraph 19

Is this in Bad? if so remove

The permit number should be CO-002759 for the American Tunnel. →

12. Page 24, Paragraph 22

Permit release language should apply to SGC only. Could provide more explanation

13. Page 24, Paragraph 24 (a)

It is our understanding that the permits can only be terminated according to the criteria specified in the Permit Termination Assessment (paragraphs 12, 13, 14, and 15). Reference to this process should be contained in paragraph 24.a.

Similar to comment #2

This paragraph should be reworded to state that "The Division agrees, based on the facts of this case, that in the event of a Successful Permit Termination Assessment pursuant to paragraph 14, no future CDPS point source permits will be required of SGC for seeps or springs which emerge or increase in the Upper Animas River or Cement Creek drainages following installation and closure of bulkhead seals in the American or Terry Tunnels.

14. Page 26

The conditions when the State can draw on the surety and the purposes for which the State can use the surety funds are

very restrictive. It is our understanding that the funds can only be used if Sunnyside is bankrupt and discontinues treatment of water necessary to maintain water quality. We recommend that the State have access to the surety if SGC fails to perform as required in the Consent Decree, no matter what the reason for the failure to perform.

Furthermore, use of the term bankrupt is ambiguous. What does become bankrupt mean? Does this mean SGC has filed for bankruptcy, does it mean that SGC has been adjudicated bankrupt by a court, or does it just mean SGC is out of money? Finally, the State is restricted to use the surety funds only to enter and operate the treatment facility at the American Tunnel. We recommend that the surety be available to allow the State to complete any work SGC is required to perfcrm under the Consent Decree. For instance, if SGC were to go bankrupt before they complete the A list projects, the surety should be available to complete these projects, if the State so chooses.

Appendix A

1. Page 4 (a), First bullet paragraph

looks like Bold print →

The response to exceedances of the monthly zinc average at the reference point needs further definition. SGC should **automatically be required to investigate possible causes of elevated zinc values.** How long does SGC have to lower the zinc levels if a problem occurs? Subsequent to the investigation period which should last a maximum of sixty (60) days, SGC should be required to submit an investigation report and a mitigation plan to the WQCD.

2. Page 4 (a),

Similar to comment #8 CR

The times of sampling should be indicated on table A. Also the time of day for future monitoring should be specified in order to have comparable data.

3. Pages 4(a) and 5(a)

The copy of Appendix A we received had several blanks referencing the Consnt Decree. We believe these should read Page 4(a) Paragraph 13, Page 5(a) Paragraph 8(c) and Paragraph 14.

Appendix B

1. Page 1.b, Part **B-2**(1), Sunnyside Mine Pool

The plan calls for raising the pH in the Sunnyside Mine to a range of 8 to 9. We are concerned that the range of pH may not be high enough to handle the zinc and copper concentrations. A pH range of 10 to 11 would appear to be a

more realistic range to assure adequate precipitation of metals within the mine pool. There is no indication as to how the pH for the injection or the pH in the mine pool will be monitored and adjusted. Either there should be a requirement for monitoring the mine pool in sufficient locations to assure that the pH is in the target range or the consentration at the point of injection should be specified.

2. Page

The plans for the mine waste dump and tailing removal do not mention removal of the contaminated material underlying the tailings. Experience at the Eagle Mine and Chalk Creek indicates that a significant amount of contaminated soil will be under the pile. This should be removed and new soil should be placed in the excavation prior to any attempt at re-vegetation. If this does not happen, the re-vegetation effort will be subject to failure and the ground water and surface water leaving this area will show a significant increase in metals. These projects should be undertaken with specific soil sampling plans and removal criteria to assure that the highest level of metals-contaminated material is removed. Criteria for soil cover after removal of the material should also be stipulated.

Detailed Comments Related to the Permits

All Permits

1. DMRs need to be sent to EPA's new address:

U.S. Environmental Protection Agency (8ENF-T)
Office of Enforcement, Compliance
and Environmental Justice
Technical Enforcement Program
999 18th Street, Suite 500
Denver, CO 80202-2466

Permit for Mitigation Projects CO-0044768

2. The draft permit for the Sunnyside Gold Corporation (SGC) Mine Remediation Projects lacks specific conditions for environmental control. The draft permit only requires full implementation of the Mine Remediation Plan (MRP), however criteria have not been established for the contents of an MRP. As written, the permit does not contain necessary technology based controls, as required by Federal regulations.

At a minimum, the draft permit for SGC must include specific requirements for all MRPs. We feel that these requirements should be similar to the those for the storm water

management plans (SWMPs) for inactive mines as drafted by CDPHE for the draft General Permit for Stormwater Discharge Associated with Metal Mining Operations and Mine-Waste Remediation (Permit Number COR-040000, Parts I.C.1 - I.C.6). A particular emphasis should be placed on erosion control during and after (re-vegetation) the remediation project.

Additional SWMP requirements related to plan preparation, implementation, retention, submittal, review and approval by CDPHE, plan changes, non-stormwater discharges, inspections SWMP availability, and procedures for covering additional projects must also be added to the permit. For those projects where adits are present, requirements related to adit closure or treatment should be added to the permit to address flow other than storm water.

The MRPs will need to be modified to be in compliance with these permit conditions. Review and approval of the work plans should be through the permit process rather than the consent decree.

American Tunnel Permit CO-0027529

3. After reviewing data ~~form~~ From the existing facility, EPA believes that there is a reasonable potential for toxicity at this site under present conditions. ~~EPA understands that once this site underpresent conditions.~~ EPA understands problems that once treatment of Cement Creek begins and the tunnel discharges lessen, there is likely to be an overall reduction in toxicity of Cement Creek below the facility. However, until it can be shown that there has been a substantial reduction in toxicity of Cement Creek downstream of the tunnel discharge (over present conditions) Whole Effluent Toxicity (WET) monitoring and limits should apply to the Discharge.

delete?

Terry Tunnel Permit CO-0036056

4. The Terry Tunnel dischare permit should contain a schedule for termination of the discharge. Emergency discharges and ~~thaose~~ related to maintenance should be ~~dealth with~~ addressed through standard language contained in the permit. Future permitted discharges would have to comply with the BAT standards for "Mine Drainage" at 40 CFR 440.

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HRT

FCD: March 29, 1996, cr, cr, C:\DATA\WP\ANIMAS\CDCD