



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8

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Ref: 8EPR-SF

April 30, 2018

MEMORANDUM

SUBJECT: Request for Region 8 Superfund Emergency Response Program Assistance for the Commodore 5 Level Adit Rehabilitation Project at the Nelson Tunnel/CWRP Superfund Site, near Creede, in Mineral County, Colorado.

FROM: Joy Jenkins, Superfund Remedial Project Manager

THRU: Rebecca Thomas, Unit Leader A, Superfund Remedial Program

TO: Laura Williams, Unit Leader
Emergency Response Program

David A. Ostrander, Director
Emergency Response and Preparedness Program

- Site Name/Operable Unit/ NPL Status: Nelson Tunnel/Commodore Waste Rock Pile/OU2/Listed
- Account Code to Charge Staff Time and Travel: 08MBRV0208LTDD2
- Estimated Project Cost: ~\$4.260 M
- Source of Project Funding Available: Contracts: Special Account = \$4M with supplemental removal program funding up to \$260,000 / Payroll: Pipeline / Travel: Pipeline
- Project Contacts/Phone Number: Joy Jenkins, RPM/office 303-312-6873 and Dania Zinner, support RPM office 303-312-7122
- Authority for Removal Project (Action Memo, IROD)/Schedule: Action Memo for Time Critical Removal Action expected mid to late April 2018.
- Removal Project Duration/ Deadline (SCAP or other): Start June or July 2018 completion by January 1, 2019. Approximately 7 months project duration.
- Is this a mine site? Yes If so, attach characterization memo and concurrence from OSRTI and ARA to proceed with the project. The Site is established as a category 3. A HQ Consultation review is currently underway including a determination of activities to be 'N' or 'H'. HQ has committed to a phased review process which will allow the planning to progress.
- Is this a lead site? Site has lead contamination in the discharging water and in the mine waste, however, this action is for stabilization and no clean up levels will be established. If so, attach toxicologist's memo regarding cleanup levels and concurrence from lead workgroup and ARA to proceed with the project.

This memorandum requests assistance from the Emergency Response Program to stabilize the deteriorating Commodore 5 Level adit at the Site. The Commodore 5 is ~50 feet above the Nelson Tunnel (at the portals), and drains AMD water from the Upper Mine Pool of the Nelson Tunnel at high water levels. The ability of the Commodore 5 to drain excess water from the Upper Mine Pool limits the

water pressure head on the Upper Mine Pool impoundment/blockage. The Commodore 5 has areas of roof-fall that are likely to create further impoundment of water and further pressure on the Upper Mine Pool impoundment, potentially changing or destabilizing the system that holds over 21 million gallons of AMD water. The urgency to rehabilitate/stabilize sections of the Commodore 5 is to maintain the water pressure release capacity reducing the chances of a large sudden uncontrolled release, and to create safe access for continued inspections and future work anticipated under an interim ROD.

The overall objective of this removal action is to prevent water from impounding in the Commodore 5 Level, which will preserve current conditions and prevent further pressure from building on the Nelson Tunnel impoundments. Work will include

- stabilizing areas of the Commodore 5 Level with steel sets or other support systems to prevent further deterioration,
- clearing muck and debris (rock fall from the tunnel roof or walls) from the floor of the tunnel in certain areas to prevent water from impounding,
- maintaining and keeping open vertical connections from the Commodore 5 Level to the Nelson to allow the passage of water (preventing further water impoundment and pressure building on the Nelson impoundments),
- maintaining physical access between the Commodore 5 Level and the Nelson Tunnel at the Bachelor Shaft and Daylight Winze to allow continued monitoring of water levels in the Nelson Tunnel, and
- rehabilitating the portal and gate structure and maintaining the tunnel walls and roof for worker access for the pending interim ROD work.

This work will be conducted in 5 segments of the Commodore 5 Level as shown in Attachment 1. The following work will be completed at a minimum to maintain physical access to the Nelson Tunnel through the Bachelor Shaft and to keep a minimal flow path open between the Del Monte Raise and Daylight Winze. A summary of this work by segment can be found in attachment 5:

- Segments 1-4
- Segment 5 from the Daylight Corner to the 44 Raise
- Segment 5 stabilization beyond the 44 Raise will be continued at the OSC and RPM's best professional judgement based on remaining available funds and progress of the interim ROD.

PROJECT DESCRIPTION/ STATUS:

- Site Conditions and Background are summarized in the Draft Focused Feasibility Study located in the Site file.
 - o The FFS is draft since HQ requested additional information upon their review of the draft proposed plan.
- Threats to Public Health or Welfare or the Environment would be from a large, sudden uncontrolled release of AMD water from the Nelson Tunnel, or possibly the Commodore 5 Level portal, should the stability of the system change or become compromised. The town of Creede is less than 1 mile and downgradient from the Nelson Tunnel and lies on the receiving stream, Willow Creek. It is anticipated that a large uncontrolled release could overflow the concrete channel that carries Willow Creek through the town impacting residences and would certainly impact non-point source and brownfields funded clean-up projects in the floodplain below town.

- This removal component would be a precursor to a planned IROD that is expected to include a flow through bulkhead in the Nelson and a flow-control structure in the Commodore 5 Level with the goal of preventing a large sudden uncontrolled release of AMD water from the mine tunnel system.
- Federal ARARs are identified in the FFS and could be reviewed for this project. The State of Colorado provided potential State ARAR's for the proposed removal action on March 26, 2018.
- There are historic structures, including historic cribbing walls that hold mine waste in the vicinity of the Site. Removal and Remedial actions should prevent negative impact on these structures as the structures are **very important** to the town's tourism industry. No assessment of the structures or consultation with the SHPO has been conducted yet by EPA. These structures are generally regarded as beyond the scope of the TCRA, and as such, a SHPO consultation is not required.
- The Site is in a narrow canyon and the access road is narrow and passes under a historic rail bridge. This may affect the size of heavy equipment or supplies that can be mobilized easily to the site.
- Two companies own the land in the vicinity and are PRP's, past financial assessment indicate the companies are likely not viable;
 - o Anticipate that the PRP will not prevent access and will be amenable to rehabilitation work in the Commodore 5. Meeting for access is scheduled for mid-April.
- Removal contract capacity will be needed for design and construction;
 - o Deere and Ault has done the initial in-tunnel assessments as a subcontractor to the Region 2 RAC contractor for the FFS.
- An OSC will be needed to direct and oversee the work, estimated time to be determined based on scope of rehabilitation work, field time estimated up to 7 months.