

## **US EPA and Colorado Mining Association**

### **Mining Smart Sectors Meeting**

**Thursday, August 9 – 9:00 – 10:00 a.m.**

### **Meeting Summary**

#### **Welcome and Introductions**

Environmental Protection Agency (EPA) Region 8 Senior Advisor to the Regional Administrator Patrick Davis and EPA Region 8 Environmental Engineer Joy Jenkins welcomed attendees.

#### **Stakeholder Input**

Participants introduced themselves and provided the following comments:

#### **Good Samaritan projects: Joy Jenkins provided the following points:**

- EPA published the “Interim Guiding Principles for Good Samaritan Projects at Orphan Mine Sites and Transmittal of CERCLA Administrative Tools for Good Samaritans” in June 2007.
- EPA also issued the “Clean Water Act (CWA) § 402 National Discharge Elimination System (NPDES) Permit Requirements for Good Samaritans at Orphan Mine Sites” memorandum in December 2012.
- Both documents were intended to describe and clarify liability protections Good Sams would have under CERCLA and the CWA after performing cleanup projects as a Good Sam
- These tools have been utilized rarely for Good Sam cleanup projects.
- To date, we have worked with project proponents either approved (1) or are in the process of approving (2) Good Samaritan projects – 2 are located in Colorado and 1 in California.
- EPA’s current Administration supports and believes in the idea that Good Sam cleanup projects can provide a cost-effective way to address human health and environmental concerns at a subset of AML sites
- To assess why there have been very few Good Samaritan projects, EPA participated at the Good Samaritan Summit in Golden Colorado earlier this year.
- The Agency has also reached out to key stakeholders to find out why more Good Sam projects have not been implemented
- Agency is committed to work with key stakeholders to facilitate the process of getting demonstration projects off the ground
- Working with the key players, the Agency would like to advance some Good Samaritan Demonstration Projects by next year.
- We are supportive of Good Samaritan AML projects and have and will continue to provide Technical Assistance on Draft legislation

#### **Whole Effluent Toxicity (WET) testing methods:**

Participants shared the following regarding WET testing methods:

Whole Effluent Toxicity (WET) testing methods can be acute, which is based on lethality during short-term exposure, or chronic, which is based on lethality or sublethal effects (growth or reproduction) during longer-term exposure. WET testing subjects aquatic organisms to different concentrations of an effluent and measures the response of the organisms to estimate toxicity. The Water Quality Control Division (WQCD) has begun to implement sublethal Whole Effluent Toxicity (WET) requirements into Colorado Discharge Permit System (CDPS) permits.

USEPA has been promoting Whole Effluent Toxicity Testing (WET) as a means for measuring toxicity to aquatic life. While WET is a valid tool for assessing potential toxicity of water, it is also important to recognize the limitations of the test method. For example:

- Variability in WET testing analytical methods can lead to false positive results (EPA 2000).
- Confounding factors involved in WET testing such as, ionic interferences, inability to simulate field conditions in the laboratory, selection of representative test species, and episodic flow characteristics, can give misleading indications of potential toxicity. Small variations in the ionic balance of test water can affect the reproductive cycle of some species used in WET testing. Chapman (2000) expands upon numerous examples of these types of issues.
- Choice of representative test organisms can be an issue as well. For instance, *Ceriodaphnia dubia* can be adversely affected by suspended solids and generally does not inhabit flowing waters.
- Lastly, many mining facilities only discharge episodically, in which case the basis for chronic testing may no longer be applicable. The length of chronic tests varies but can be up to 9 days, which is not accurately represented by a short-term episodic discharge.

All of the preceding issues are even more problematic and results can be more misleading when testing for sublethal effects. Because sublethal effects are not as definitive as lethal effects, sublethal testing methods are even more sensitive to the above issues.

Sublethal effects testing at some facilities has shown issues with the overall TDS of the water, which can be confirmed with more detailed toxicity identification evaluations (TIE). TIEs are extremely involved and expensive undertakings and industry should not be expected to pursue these where TDS is the expected cause of toxicity.

A primary issue that facilities are encountering is that when sublethal effects are caused by ionic imbalance (TDS), the TIE process is not straightforward. Ionic imbalance is shown by proving that none of the other pollutants (e.g. metals, organics, etc.) are causing the toxicity. Even when this is done however, there is no clear path for a facility to take to avoid recurring TIE studies in the future. WQCD should allow off-ramps from WET sublethal requirements where failures are shown to be caused by TDS / ionic imbalance. The WQCD should also consider development and approval of alternative test species.

The number of stakeholders being affected by the sublethal testing requirements is increasing creating more impetus to address this issue. CMA suggests that WQCD address the issue through a Division-led workgroup intended to update WET regulation and guidance.

**Coal Mining Sector and NEPA:**

- Participant indicated that the NEPA process is very slow. Questioned how this can be made more efficient and timely?

**State Implementation Plan (SIP):**

- Participant would like to see an acceleration in the SIP approval process.

**Monitoring Methods in the CFR:**

- Participant indicated that in some cases there is newer and better technology available for certain types of monitoring, but because specific methods are listed in the CFR, facilities go through a case by case basis for variance in each situation. Indicated that these variances, in some cases, are preferred by the State Regulators.
- Question: How can the CFR be updated to allow the newer technologies without the company (and State) having to work through the variance process?

**Aquatic Life Testing:**

- Participant expressed concern that aquatic life testing can be required in ephemeral and intermittent drainages where the testing organisms aren't present.

**Iron Testing:**

- Participant asked if Iron Testing can be done on bioavailable Iron rather than just total Iron. Indicated test of filtered samples for iron is thought to be more appropriate than total iron. Indicated that GEI and Peabody have done research in this area.

**DRMS:**

- Expressed interest in better communication from EPA with DRMS with respect to CERCLA actions. At times there is overlap between CERCLA actions and State Reclamation permits and there is not sufficient communication or coordination.

**Comments from EPA for State hearings:**

- Participant expressed concern that EPA comments can come in at the last minute (just before) a hearing where the company does not have time to consider the comment or prepare a response. Questioned how this can be prevented?

**Waters of the US:**

- Participants expressed interest in timing of this rule and if there will be stakeholder review and public comment opportunity.

**Point of Compliance:**

- Participant expressed concern that the Colorado Division of Water Quality has expanded the definition of a Point of Compliance to be appropriate at a source rather than at the permit boundary or at the edge of a treatment area.

- Expressed that this is inconsistent with SMACRA
- Expressed the impression that the division is seeing all waters, as waters of the State. Which seems to be a new interpretation at the State level.

**Appreciation for opportunity to communicate on topics of interest.**

- Several participants expressed appreciation for opportunity to express questions and share information.

**Staffing and resources at EPA:**

- Participant inquired about how hiring freezes and staffing levels have or will impact timeliness of work at EPA.