Moab Tailings Project Steering Committee Meeting
January 26, 2021, 3:00 p.m.
UNAPPROVED MINUTES
PUBLIC MEETING
Held Via Zoom
Grand County Courthouse
125 East Center
Moab, Utah 84532

The following individuals were present via Zoom

Committee Members:
Mary McGann, Committee Chair, Grand County Commission
Jennifer Swenson, Grand County Office of Emergency Management
Bill Jackson, Grand County Road Department
Mila Dunbar-Irwin, Grand County Planning and Community Development
Jerry Pruitt, Department of Workforce Services (for Kelly Thornton)
Amy Tendick, National Park Service
Rani Derasary, Moab City
Dana van Horn, Grand Water & Sewer Service Agency
Not filled, Thompson Springs / Crescent Junction representative resident
Joette Langianese, Grand County representative resident
Anthony (Tony) Mancuso, Utah Forestry, Fire and State Lands
Evan Tyrell, Solid Waste Management Special Service District #1

Staff Russ von Koch, Grand County UMTRA Liaison (non-voting staff for MTPSC)

Moab UMTRA Project:
Russell McCallister (Federal Cleanup Director)
Sasha Robertson (Deputy Federal Cleanup Director)
Chris Pulskamp (Project Engineer)
Honora Thompson (Pro2Serve, Public Affairs Manager, Technical Assistance Contract)
Barbara Michel (SKLS, Staff Support Specialist, Technical Assistance Contract)
Stephanie Lein (Pro2Serve, Environmental Air Quality Technician, Technical Assistance Contract)
Liz Moran (Pro2Serve, Senior Environmental Specialist, Technical Assistance Contract)
Ken Pill (Pro2Serve, Groundwater Program Manager, Technical Assistance Contract)
Swaine Skeen (SKLS, Senior Program Manager, Technical Assistance Contract)

Citizens
Michael Adkison
Randy Haws

Other Agency
Jessica Thacker, Grand County Solid Waste Service District #1

Media
Emily Arntsen, Moab Times-Independent

1. Call to Order – Chair

The Chair called the meeting to order at 3:06 p.m.

Per Resolution 3198 at least seven committee members were present to constitute a quorum.

2. Introductions – Chair

The Chair asked those present to introduce themselves: Several of the participants did so, but as multiple participants had their microphones on mute and did not respond when called, Mary dispensed with further introductions.

3. Review and Consideration of Minutes from the October 27, 2020 Meeting – Chair

The Chair asked for a motion to approve the minutes.

Tony moved and Joette seconded a motion to approve the minutes as presented. The Chair asked if there were any suggestions for revising the minutes. As no revisions were suggested, the Chair asked for a vote. The motion was passed without objection.

4. Citizens to Be Heard – recognized by the Chair

Mary asked if any citizens present would like to speak. For phone only participants, Mila provided information about how to unmute their microphones. No citizens asked to speak.

5. Moab UMTRA Project Update – Including Crescent Junction Cell Cover – Russell McCallister, DOE Federal Cleanup Director and Chris Pulskamp, Project Engineer

The Chair recognized Russell McCallister who provided an overview of work and progress at the Moab UMTRA Project (the Project).

Russell began by reporting that the Project had received $47.8 million in funding for fiscal year 2021. This is $2.8 million more than was received in fiscal year 2020. He related that funding is available to provide for the continuation of sending four trains per week of tailings to the disposal cell at Crescent Junction. He observed that funding would support adding rail cars to each train, but much of the funding would go to shipping some extra trainloads possibly on holidays, Fridays, and Saturdays. He said that they are still working out the details of what would be done and the work schedule. Some staff have volunteered to work extra shifts.

He informed the committee that the Ames Construction crew had been working to excavate additional space for the disposal of mill tailings at Crescent Junction and that the Project had been able to negotiate extending that work without having to re-mobilize. Russell reported that the excavation work should be completed in about another week.

Russell related that the Project has shipped a total of over 11.2 million tons of tailings to Crescent Junction and about 304,000 tons since the start of the fiscal year on October 1. He said that he is very pleased with how well the crew is working, that operations are going well, and over 1,600 consecutive days have been worked without a lost time incident or accident.

So far, only a few workers have been diagnosed with Covid-19 and the Project has been able to continue operating during the pandemic. Russell noted that there has been no known transmission at the sites and that the Project had already implemented most of the Covid-19 guidelines recommended by the new administration. He informed the committee that only a few staff are working from home.

Russell said that the Project is continuing to monitor the potential for flooding in the Upper Colorado River Basin. The low snowpack to date and continuing drought conditions indicate that it is unlikely that the Project's Moab Site will be impacted by flooding this year.

Russell related that the Project is looking at performing an environmental assessment, and conducting an associated public comment period, on the Canyonlands Back Country Horsemen's proposal to install four metal silhouette-type sculptures on DOE property (near the parking area for Courthouse Wash). He explained with the potential for contamination at the location that it would be prudent to conduct the environmental assessment.

Russell informed the committee that about one million cubic yards of material had been excavated from the Crescent Junction Disposal Cell last year, and that by the end of next week another quarter of a million cubic yards will have been excavated.

Russell then introduced Chris Pulskamp, DOE's Moab Project Engineer, to brief the MTPSC about the Project's efforts to design and obtain approval for an evapotranspiration (ET) cover for the Crescent Junction Disposal Cell. The ET cover would replace the standard rock cover previously approved for use by the Nuclear Regulatory Commission at Crescent Junction.

Chris began by describing the NRC standard cover as consisting of five layers totaling about nine feet of material. He explained that a lot of the material must be trucked 70 miles to Crescent Junction. Chris stated that an ET cover will work better in our arid environment. He defined ET as evaporation plus transpiration and that evaporation is the major expectation for an ET cover with transpiration by plants further helping to reduce moisture in the cover. One of the goals of a cover is to keep moisture away from the RRM (residual radioactive material). The ET cover will be designed as a system to work in our arid environment. It will require very little maintenance which is important when planning for a thousand years. ET covers have been proven to work well at other sites.

The Moab Project has retained Dr. Steve Dwyer as the designer for the ET cover. He is one of the foremost experts in ET designs. He has studied them for a long time and his designs have been approved and built at the Rocky Mountain Arsenal, Los Alamos and other locations.

Chris informed the MTPSC that in the last few months Dr. Dwyer prepared and submitted the design for the 30% review to the Project, the Office of Legacy Management in Grand Junction and other DOE offices. Their comments were sent to Dr. Dwyer who is now preparing the 60% review with completion expected around June. The 60% design will be more robust and include a re-vegetation plan. It will be submitted to the NRC who has primacy for approval of the final design. Following approval of the 60% design, the Project will submit the 90% and final designs to the NRC for approval. Chris explained that the ET design might save around $27 million over using the standard NRC cover.

In response to a question from Mary about a descriptive name for the standard cover, Russell described it as an armored rock cover. He also explained that over time dust fills in the spaces between the rocks and plants begin to grow, so it is better to plan for plant growth. Chris then answered another question from Mary about the cost savings between the two cover types by explaining that the ET cover design would reduce the thickness of the cover by about half or from about nine feet to between four and five feet. He also informed the committee that all of the cover material is available at the Crescent Junction Site so that

the material used to build the cover would not have to be purchased and transported to the site. Russell further related that the armored rock cover was approved about 20 years ago, that the DOE has learned a lot since then, and that the ET cover will perform better and cost less to build.

Emily Arntsen asked about when the evaporation and transpiration occur, what goes up into the atmosphere from the ET cover and what is the difference from the armored rock cover? Chris said that water and moisture will go into the atmosphere from both covers, but that the ET cover results in more efficient removal. He observed that water tends to penetrate more deeply into the armored rock type cover. Chris noted they are both designed to include a radon barrier. Russell added that with an armored rock cover water tends to percolate down into the tailings which needs to be avoided.

Emily asked for a summary of the ET type cover's advantages. Chris explained that ET covers are more efficient at removing water. Russell added that it is important to keep water from penetrating the cover by planning for plants to grow.

Evan asked if DOE's Office of Environmental Management will be working with DOE's Office of Legacy Management to get advice about the cover design and what will happen to the existing rock cover. For the cover design, Chris replied that they are already working regularly with Legacy Management on the cover design. He said that Morgan Williams and others at Legacy Management have experience with covers. Legacy Management has also reviewed the 30% design. Regarding the portion of the tailings that already have an armored rock cover, Chris said that the rock would be repurposed as part of the ET cover. Russell also noted that the Moab UMTRA Project has been working with Legacy Management for a long time and that conditions at Crescent Junction are similar to the DOE's Cheney Site so we can learn from Legacy Management's experience there.

6. Planning for Site Closure Update – Chair and Russell McCallister

Russell informed the committee about the status of the Integrated Project Team (IPT) and the January 14, 2021 meeting between Project staff and the MTPSC members who attended. He began by explaining that there are many requirements for closing the site and that he formed the IPT to start consideration of just what needs to be done. Russell also noted that the future use of the site also has to be considered. Russell mentioned that the first team meeting was last week and that ideas and questions, including consideration of how to manage groundwater, were recorded on a white board. Russell also reported meeting with Mary, Joette, Rani, and Russ on January 14 to inform them about how the IPT might work. He agreed to report about the IPT at the April MTPSC meeting.

Mary asked Russell how long the closure work might take after the tailings were moved. Russell replied that it could take about two additional years. He mentioned the possibility of using kochia to help draw salt out of the soil to improve it for other plants in the future.

Tony asked about which entity would operate the groundwater injection system after the Office of Environmental Management completed its closure work. Russell said he thought that would be the Office of Legacy Management. Russell said the Project has been removing the source material responsible for the contamination and that a future option might be to also inject even more river water for flushing.

Russell continued by observing that we need to identify the needed closure-related procedures and agreements early, so that they can be ready later. He also recognized Tony and the Utah Department of Natural Resources for proving a lot of the seed that the Project has been using for re-vegetating the site. Russell welcomed the DNR and others to be involved in planning for transition.

Joette asked about minutes for the January 14 site closure meeting noting that it will be important to keep track of ideas. Russell said they could report back quarterly to the MTPSC.

Emily Arntsen asked why official projection dates for moving the tailings and site closure have not been reduced. Russell said that the Project was still operating with base funding that supports two trains per week. He explained that while recent funding has enabled the Project to move forward faster, he is not yet willing to shorten the projection dates as future budgets are unknown. Russell further noted that it was his hope that identifying and planning for closure actions now will further advance getting everything done. He gave ground water management as an example.

Joette asked about the potential for flooding this year. Russell said they are not anticipating flooding, but that could change. Tony said that the Upper Colorado River Basin snowpack was only 62% of average and that by one estimate there is a 33% percent chance that the snowpack could be even lower.

7. Proposed Changes to Air Monitoring Network – Russell McCallister and Stephanie Lein, Moab UMTRA Project Environmental Air Quality Technician

Russell began by explaining that the Project has been reviewing its air quality monitoring program. He emphasized that they do not want to eliminate anything that is needed and the goal is to get better data. He then introduced Stephanie who updated the committee about potential changes to the Project's air monitoring network.

Stephanie began by stating that the Moab UMTRA Project's air monitoring program has been operating in compliance with applicable Department of Energy Order (458.1). She explained that the Project conducted a self-assessment of its air quality monitoring program in 2019. The assessment found that the quality of the data collected for both the Moab and Crescent Junction sites can be improved by increasing the number of monitoring stations near the site boundary. This would be accomplished by relocating redundant distant collection stations.

Stephanie presented a slide showing that the off-site stations have consistently recorded monitoring results well below DOE's annual public (radiation) limits over the life of the Project. She expressed the Project's confidence that air quality at the off-site areas would continue to be uninfluenced by the Project activities. For now, the Project is only looking at relocating the radon and gamma monitoring stations, but the particulate stations could potentially be considered later.

Stephanie also reviewed other proposed changes to the air quality monitoring network. These included improving data collection and dosage calculations for the hypothetical maximally exposed individual (MEI) for both the Moab and Crescent Junction sites. For the Moab MEI, the monitoring station would be moved to another nearby location as no one is now living at the current site. At Crescent Junction, the MEI site would be moved to more accurately measure the closer location of a new home built north of I-70. At both locations, the MEI's would be monitored for gamma radiation. Stephane explained that population dosage calculations would be based upon the MEI results which would reduce the need for some gamma monitoring stations elsewhere.

Stephanie then described her proposal to report better dosage calculations for particulate radiation by using a more realistic, lower number for the volume of air that humans take into their lungs and to also better utilize available wind data when making the dosage calculations. She described new software that has the capability to analyze windblown dust from the pile and produce estimates of ground (radiation) concentrations. The software will help the Project better determine if the radioparticulate monitoring network needs improvement or is already working well.

Stephanie summarized her presentation by explaining that the goal of the air monitoring changes under consideration is to strengthen compliance with the DOE order and provide a higher quality of data for the protection of the public and the environment. She related that an internal committee is reviewing the proposed changes before it goes to the DOE for further consideration.

Joette asked if the new software will be able to provide results sooner and if there is any way to get real time data. Stephanie responded that she still will not get data back from the lab for a couple of weeks for verification before she sends it to the UMTRA liaison. Russell further emphasized the Project's on-going measures to control dust. He explained that while dust from microbursts cannot be controlled such events are of short duration and that the Project is working to remove the tailings as quickly as possible.

Emily asked Stephanie to explain more about how the Project is making changes to avoid overestimating dosage. Stephanie described that the current estimate for radioparticulate dosage over reflects actual human breathing rates as it uses an intake of 60 liters per minute while a highly active person only breathes in about 12 liters per minute. She observed that using a more realistic breathing volume should significantly reduce the dosage estimate.

Russell concluded that the Project is working to get better dosage estimates for both the public and its workers.

8. Air Monitoring and Liaison Activities Status Update – UMTRA Liaison

The Chair recognized Russ von Koch who presented the liaison's status update PowerPoint. Tonnage moved to Crescent Junction in October was 86 k tons November 74 k tons, and December 76 k tons with about 70 percent of total estimated tons now moved. Russ also reviewed winter operations at the Project and the long term annual progress towards transporting the tailings from the Moab Site to the Crescent Junction Disposal Cell. Russ reported that the tonnage transported in the October through December period was up 10% over the average for all of Federal fiscal year 2020.

Russ discussed the air quality monitoring data for the four quarter moving average through the third quarter of 2020. Overall, radiation levels for the moving average were down from the prior period. Of the 27 total measurements, three were up, 14 were down, and 10 were the same. All three stations reporting higher measurements were for radon. The Moab MEI (maximally exposed individual) site was up three percent of allowable impact, Station 127 along the Potash Road was up two percent, and Station 129, just outside the NW corner of the site, was up one percent for radon. All monitoring stations again reported radiation levels below the DOE's allowable limits for radon, gamma, and particulate radiation.

For additional information about the liaison's presentation, please see the Liaison's Status Report presented for the January 26th, 2021 MTPSC meeting on Grand County's moabtailingsproject.org webpage.

9. Liaison Position Update – Chair

Mary briefly updated the committee regarding the county's search for a new liaison. Russ said that he would be able to work for a longer period as Covid-19 has disrupted his plans for most of this year.

10. Stakeholder Updates – Chair

The Chair asked the members to present any stakeholder updates to the committee.

No stakeholder updates were presented.

11. Future Agenda Items?

The Chair asked the members if they had any additional items to add to the committee's normal agenda for future meetings.

Evan requested that more information about the proposed changes to the location of the air monitoring stations be presented. Russell said that the TAC Team will outline any proposed changes and that they will be presented to the MTPSC before any final decisions are made. Russ said that he would roll the air quality monitoring program topic forward to the next meeting.

Rani suggested that she, Mary, and Joette update the MTPSC about their efforts to assure continued funding for the Moab UMTRA Project.

12. Future Meeting Dates – Chair

The Chair reminded the members of the dates for the April, July, and October meetings. All meetings are planned to be held on fourth Tuesdays from 3:00 to 5:00 PM. The meetings will be hosted virtually by Zoom or at the Council Chambers in the Grand County Courthouse. For 2021, the remaining meeting dates are April 27, July 27, and October 26.

13. Adjourn
The Chair adjourned the meeting at 4:27 p.m.

Respectfully submitted

S/s Russell W von Koch, Grand County UMTRA Liaison

Approved Date

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Mary McGann, MTPSC Chairperson