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**Technical Analysis and Findings**  
**Utah Coal Regulatory Program**

August 25, 2016

**PID:** C0410002  
**TaskID:** 5241  
**Mine Name:** SUFCO MINE  
**Title:** ADD MONITORING DATA & REVISE COMMITMENTS

**Operation Plan**

**Subsidence Control Plan Subsidence**

*Analysis:*

The amendment meets the requirements of R645-301-525 for Subsidence Control Plan.

The amendment included the removal of text within Chapter 5 Subsidence section. The Permittee removed the text stating "all of" from the statement of Sufco will meet the monitoring and mitigation responsibilities. The Permittee will still meet all required monitoring and mitigation stated throughout the MRP until final bond release.

cparker

**Vegetation**

*Analysis:*

The amendment does not meet the State of Utah R645 requirements for protection of vegetation from mining induced subsidence.

The Permittee has agreed to a monitoring and mitigation plan for undermining the South Fork of Quitcupah 2R2S Block "A" and 3R2S Block "B". This plan is incorporated into the MRP as Appendix 3-14. Page 1 of the appendix states, "The monitoring and mitigation plan will provide sufficient data for stakeholders associated with these resources and lands to make a determination of the degree of impacts. Information and data will be collected before the area is mined, throughout the mining period, and after mining is past. Monitoring and data collection will continue until the mine, Division and Forest agree that mining impacts, if any, have occurred, have been mitigated, and no further impacts are anticipated."

Although it is not specified, it appears the amendment requests the Division determine the monitoring associated with Appendix 3-14 is complete and no longer required. Specifically, the amendment requests the Division approve discontinuance of monitoring of riparian vegetation for the upper reaches (sites Q01-Q09) of the South Fork of Quitcupah Creek. (The amendment replaces Chapter 3, pages 3-46C and 3-47.) Reason provided for discontinuing monitoring is due to a control burn by the US Forest Service in 2015 and verbal communication with the Division in 2015. Furthermore, a summary of the data collected from 2012 through 2015 indicate there "seemed to be no clear differences in the riparian width trends for the control stations or the subsidence zone stations".

The amendment states that sites Q10S and Q11C will continue to be monitored though 2016. The amendment also modifies the monitoring time table shown on page 4 of Appendix 3-14. The approved timetable includes monitoring of 2R2S "A" for a period of 5 years, through 2018 and 3R2S "B" for a period of 5 years through 2020. The permittee proposes these studies will be complete in 2016.

*Deficiencies Details:*

The amendment does not meet the State of Utah R64-301-300 requirements for protection of vegetation from mining induced subsidence.

R645-301- 332. For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES a description of the anticipated impacts of subsidence on renewable resource lands identified in R645-301-320, and how such impact will be mitigated;

R645-301-143. The permittee will comply with the terms and conditions of the permit, all applicable performance standards and requirements of the State Program.

The permittee must provide adequate information to demonstrate that no further subsidence will occur in the South Fork Quitcupah 2R2S Block "A" and 3R2S Block "B" area and therefore, future mitigation will not be necessary. Furthermore, the permittee must provide evidence that all stakeholders associated with these resources and lands have agreed that the monitoring and mitigation plan described in Appendix 3-14 is complete and no longer required.

lreinhart

## **Hydro Surface Water Monitoring**

*Analysis:*

The amendment meets the State of Utah R645 requirements for Hydrologic Surface Water Monitoring.

With the submitted MRP amendment, the Permittee will no longer do bi-weekly visual inspections of the springs and stream monitoring location above the Forest Service road in the South Fork of Quitcupah canyon. All regular quarterly monitoring will continue as required in the MRP. Above the Forest Service road, there has been very little to no subsidence impacts to the springs and stream monitoring locations.

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