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STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

file

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

May 20, 1988

TO: John Whitehead, Permit Supervisor

FROM: Brent Stettler, Reclamation Biologist *Brent*

RE: Observations on the Coarse Refuse Reclamation Test Plot, Kaiser Coal Corporation, Sunnyside Mine, ACT/007/007, Folder #2, Carbon County, Utah

On May 18, 1988 Lynn Kunzler and I visited the coarse refuse reclamation test plot in company with Barry Grosley of Kaiser Coal Corp. Our visit was in conjunction with Sunnyside's mid-term permit review.

The test plot was set up in 1985, and was designed to test vegetation establishment on pure coarse refuse, and on four different borrow material depths over coarse refuse. The refuse on one half of the plot was limed, the other half was not.

Pure coarse refuse failed to support any vegetation. In fact, very little vegetation occurred on any of the borrow material treatments except for the centermost, which represented 48 inches of borrow material over coarse refuse. No difference in limed and non-limed treatments of coarse refuse was apparent.

If test plot results are to be taken at face value, Kaiser Coal Corp. should plan to bury all coarse refuse under four feet of borrow material. However, results may have been obfuscated by a flaw in the plot's design. A smooth soil surface across the 1.5 acre plot and soil settling created a very shallow basin at the center. The 48" treatment of borrow material probably received more moisture than other treatments, during run-off storm events. In hindsight, a roughened, gouged surface may have prevented that from occurring. As a plant growth medium, pure coarse refuse proved to be a complete failure. Regardless of toxicity, the black color apparently absorbs so much heat that seed germination and plant survival become untenable.

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May 20, 1988

Kaiser Coal Corporation should renew their research efforts to achieve successful reclamation of coarse refuse. Burial of the coarse refuse disposal area under as much as 48 inches of borrow material would be prohibitive indeed.

BS/as
cc: B. Grosley
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