



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6

and



STATE OF NEW MEXICO
ENVIRONMENT DEPARTMENT
and
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

Ron Curry
CABINET
SECRETARY

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DIRECTOR,
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November 13, 2009

Jerry A. Lomax
Vice President
Chevron Technology Ventures
3901 Briarpark Drive
Houston, TX 77042

William L. Sharrer
VP, Business Advancement
Chevron Mining Inc.
116 Inverness Drive East, Suite 200
Englewood, CO 80112

Dear Mr. Lomax and Mr. Sharrer:

Re: Chevron Solar Facility and Cover Depth Plan for the Questa Tailing Facility

As previously expressed in our October 29, 2009 letter to Chevron Mining Inc. (CMI) and Chevron Technology Ventures (CTV), the U.S. Environmental Protection Agency (EPA), the New Mexico Environment Department (NMED), and the Mining and Minerals Division (MMD) support CMI's and CTV's (Chevron's) desire to conduct a pilot demonstration project for a concentrating photovoltaic (CPV) solar technology facility at the CMI Tailing Facility in support of EPA's and New Mexico's renewable energy initiatives. This letter is a follow-up to our October 29, 2009 letter and summarizes the technical discussions which took place between EPA, NMED, MMD (Agencies), and Chevron on November 4, 2009 and November 10, 2009, in Santa Fe, New Mexico regarding Chevron's September 17, 2009 proposed Solar Facility and Cover Depth Plan (Plan) for a pilot demonstration project at the CMI Tailing Facility.

Currently, a minimum depth of 3 feet of cover soil is required for the CMI Tailing Facility under the NMED ground-water discharge permit (DP-933) and under the MMD permit (TA001RE-96-1). A minimum of three feet is also specified in the CMI Feasibility Study (FS) Report for alternatives being considered by EPA for any future CERCLA response action. The Plan, as proposed by Chevron, would use the five-year pilot demonstration project to show that an alternate cover thickness may be appropriate for closure of the CMI Tailing Facility along with the construction of the CPV solar facility. In this document the Agencies address two topics: (1) the identification of information necessary to amend DP-933, and (2) the definition of success for the performance of

the pilot demonstration that is necessary for the Agencies to consider an alternative cover depth for the CMI Tailing Facility. A summary of the discussion of these topics is as follows:

Information Required to Amend DP-933

The Plan submitted by Chevron detailed the proposal for the solar facility. Additional information was presented to the Agencies at the November 4, 2009 and November 10, 2009 meetings which Chevron agreed to incorporate into the Plan.

The presentation included the approach proposed by Chevron for testing and monitoring the performance of three different cover depths (1, 2, and 3 feet) that were requested during the teleconference of October 26, 2009. The details for this testing and monitoring appear to be well thought out and address monitoring of net percolation, the potential for uptake of molybdenum by vegetation and the contamination of cover materials by ground burrowing animals.

The information requested in the following comments should be incorporated into a revised Plan:

- The pilot demonstration that is actually constructed needs to be representative of the final design of any cover used by CMI for the Tailing Facility. To do so, a construction quality assurance project plan (CQAPP) for the pilot shall be prepared that describes the methods and procedures to be used for field monitoring and construction of the demonstration test plot. The CQAPP should include the identification of key responsibility and authority, construction contractors (including the analytical laboratory), and materials testing. The CQAPP shall be submitted 60 days before start of construction.
- Erosion monitoring and maintenance shall be included in the Plan.
- A formal request to amend DP-933 shall be submitted to NMED, along with other information required under Section 20.6.2.3000 NMAC, which includes amendment of the existing operational plan, monitoring plan, closure plan, and financial assurance.
- Please specify that post construction as-built descriptions and drawings shall be provided to the Agencies following construction.
- Nine lysimeter plots will be constructed; three within each of the three cover depths. Of these nine plots, six will be placed within a solar array (two for each cover depth) and three outside an array (one for each cover depth).
- Basin lysimeters, soil moisture sensors, and soil suction sensors will monitor each lysimeter plot.
- After construction, the lysimeters will be inspected periodically for flow. Once outflow is detected from the lysimeters, flow will be monitored continuously by a tipping bucket or pressure transducer connected to a data logger. If water is collected through the lysimeters, samples will be collected quarterly and analyzed for total and dissolved molybdenum and standard wet chemistry parameters.

- Soil moisture and soil suction sensors will be used to monitor soil conditions at discrete locations within the test plots and provide the data necessary to calculate changes in moisture storage and estimate net percolation rates.
- If any basin lysimeter has measurable outflow (i.e., net percolation) the flow rate and chemical quality will be used to evaluate transport through the unsaturated zone and potential chemical mixing with tailing pore water to estimate possible impacts to ground water.

Definition of Success for the Pilot Demonstration

The Agencies accept the following definitions of success:

- Annual Net Percolation:

“Chevron shall provide a demonstration that the proposed cover depth will be protective of ground water. A successful demonstration will show that the cover system has the capacity to limit net percolation by storing precipitation within the cover system for a period long enough for water to be removed by evaporation and transpiration and that any net percolation will not cause an exceedance of ground water standards.”

- Molybdenum Uptake in Vegetation:

“No significant difference, as determined by an analysis of variance (ANOVA) test with a p-value of 0.05 between molybdenum concentrations measured in above-ground foliage collected from three or more locations from the 1-, 2-, and 3- foot cover test plots. T-tests shall show no significant differences between 1 and 3 feet of cover and between 2 and 3 feet of cover to demonstrate the adequacy of the 1- and 2-foot covers.”

- COPC Concentrations in Soil:

“No significant differences, as determined by an ANOVA test with a p-value of 0.05, in COPC concentrations in composite soil samples collected from three or more locations in the 1 and 2 foot cover test plots and composite samples collected from the 3-foot cover test plot. The composite samples shall be taken from 0- to 3-inches beneath the ground surface. T-tests shall show no significant differences between 1 and 3 feet of cover and between 2 and 3 feet of cover to demonstrate the adequacy of the 1- and 2-foot covers.”

The pilot demonstration for the three cover depths shall be performed for a period of five years.

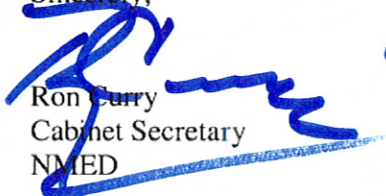
In the event that the pilot demonstrates through the monitoring and data collection process that a 1-foot or a 2-foot cover can meet the above measures of success and that the alternate cover thickness can be maintained over time, NMED and MMD will support a request to modify DP-933 and TA001RE-96-1 as appropriate, and in accordance with the New Mexico Mining Act and Water Quality Act and their respective regulations.

If such demonstration is made, and the remedy to be selected by EPA in the record of decision (ROD) includes cover for the Tailing Facility, EPA will modify the remedy. However, EPA does not consider a change in the depth of cover to be a fundamental change to the remedy and, therefore, will not issue an amendment to the ROD. EPA shall either prepare an explanation of significant difference (ESD) or a technical memorandum to the file documenting the change, as appropriate.

We believe that with these agreements, Chevron has a unique opportunity for moving forward on this pilot demonstration. We also strongly believe that this pilot can be a success, not only for Chevron but also for the New Mexico and EPA renewable energy initiatives and the community of Questa. We will continue to make every effort to support your commitment to testing and operating emerging solar technologies on contaminated properties, while ensuring protectiveness under CERCLA and the New Mexico Mining and Water Quality Acts.

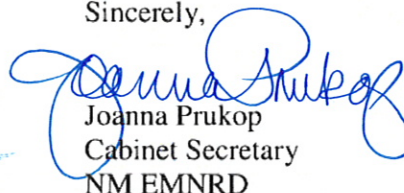
If you have any questions regarding this matter please contact Mark Purcell with USEPA at (214) 665-6707 or via e-mail at purcell.mark@epa.gov, Mary Ann Menetrey with NMED at (505) 827-2944 or via e-mail at maryann.menetrey@state.nm.us, or Holland Shepherd at MMD at (505) 476-3437 or via e-mail at holland.shepherd@state.nm.us.

Sincerely,



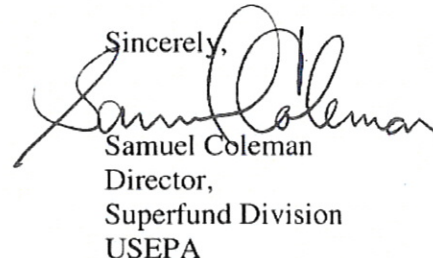
Ron Curry
Cabinet Secretary
NMED

Sincerely,



Joanna Prukop
Cabinet Secretary
NM EMNRD

Sincerely,



Samuel Coleman
Director,
Superfund Division
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Cc: Margaret Hoffman, Chief Environmental Counsel, Chevron
Mark Purcell, RPM EPA
Marcy Leavitt, Director, Water and Waste Water Management Division, NMED
Bill Olson, Bureau Chief, Ground Water Quality Bureau, NMED
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