



Department of Energy
Office of Legacy Management

October 29, 2007

Mr. Paul Frohardt, Administrator
Colorado Water Quality Control Commission
OED-OEP-A5
4300 Cherry Creek Drive South
Denver, CO 80246-1530

Subject: U.S. Department of Energy's Responsive Pre-Hearing Statement for Proposed Revisions to Current Temporary Modifications for Segment 5 of Big Dry Creek, South Platte River Basin

Dear Mr. Frohardt,

This correspondence provides the U.S. Department of Energy (DOE) Responsive Pre-Hearing Statement in response to the Proponent's Pre-Hearing Statement of the Colorado Water Quality Control Division (WQCD) regarding the subject proposed revisions.

Background - Rocky Flats was listed on the Comprehensive Environmental Response, Compensation, and Liability Act National Priorities List in 1989. The final remedy was selected in the September 29, 2006, Corrective Action Decision/Record of Decision (CAD/ROD) after completion of cleanup and closure by DOE under the *Rocky Flats Cleanup Agreement*. The final remedy is being implemented in accordance with the March 14, 2007, *Rocky Flats Legacy Management Agreement* (RFLMA) entered into by DOE, the U.S. Environmental Protection Agency, and the Colorado Department of Public Health and Environment. Segment 5 is located within the boundary of the Central Operable Unit (OU) at Rocky Flats. RFLMA establishes the requirements for implementing the CAD/ROD to ensure the remedial action remains adequately protective of human health and the environment.

In post-closure conditions water is no longer imported and all impervious surfaces have been removed, returning Rocky Flats to a natural ground water base flow condition. The post-closure conditions were reached at the end of 2005; however, it is expected to take many years before the hydrologic conditions stabilize. Thus, a post-closure ambient condition has yet to be achieved.

WQCD Proposal - The WQCD Proponent's Pre-Hearing Statement provides a succinct history of the establishment of the current Temporary Modifications (TMs) applicable to Segment 5, which were established during cleanup and closure of the Rocky Flats Site. The TMs for six organic and nitrate/nitrite (hereinafter, "nitrate") parameters for Segment 5 are set to expire December 12, 2009.

The WQCD Proponent's Pre-Hearing Statement proposes retaining these TMs, and having the Water Quality Control Commission (Commission) revisit the underlying standards during the triennial review to be completed in June 2009. DOE agrees with this proposal.

ADMIN RECORD

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REPLY TO: Westminster, CO Office

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The WQCD Proponent's Pre-Hearing Statement also proposes adding "type i" to identify the type of TM for Segment 5, pursuant to 5 Code of Colorado Regulations (CCR) 1002-21, Rule 31.7 (3)(a)(i), "where the [underlying] standard is not being met because of human-induced conditions deemed correctable within a twenty (20) year period,..." While the final remedial action addresses ground water contaminants, as discussed further below, it should be recognized that the hydrology has not reached a seasonally affected stable state and may not do so until after 2009. Thus, revisiting the underlying standards during the triennial review, as recommended by the WQCD, is appropriate.

Information Regarding DOE's Position - Pursuant to 5 CCR 1002-21, Rule 31.7 (3) (c),

...In making a decision as to whether a temporary modification should be removed or extended, the Commission will consider the existence of an implementation plan for eliminating the need for the temporary modification, the progress being made in trying to implement such a plan, the impact of the temporary modification on the uses of the stream in the area of the temporary modification and upstream and downstream of that area, and all other relevant factors.

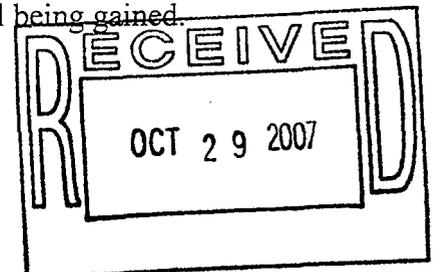
The following information related to these factors supports the proposal to retain the current TMs:

1. Implementation Plan – The TMs are necessary because contaminated ground water reaches surface water as base flow in portions of Segment 5 in the Central OU. The remedial action includes three ground water treatment systems to remove contaminant loading in ground water that may become base flow to surface water in Segment 5. These systems employ ground water flow collection barriers and passive flow-through treatment cells to remove contamination, and are designated as follows:
 - Mound Site Plume Treatment System - organic contaminant treatment;
 - East Trenches Plume Treatment System - organic contaminant treatment; and
 - Solar Ponds Plume Treatment System - nitrate and uranium contaminant treatment.

Monitoring of the treated effluent ground water and continued operation and maintenance of these systems is required and implemented in accordance with RFLMA. In addition, over time, the growth of vegetation is expected to promote phytoremediation as an enhancement to remove contaminant loading in base flow. Surface water monitoring downgradient of these systems, and at other surface water locations, is also specified under RFLMA.

2. Progress – Monitoring data for 2006 and the first half of 2007 indicate the ground water treatment systems are generally effective in reducing the intercepted ground water contaminant levels to achieve the underlying standards for the treated ground water, but among other things, hydrologic conditions affecting influent flow rates and contaminant levels are not yet stabilized. Knowledge about the capacity of the treatment media, dynamics and effects of ground water chemistry on the media and system components, and the performance of the systems to consistently treat ground water so that base flow contaminants will not negatively impact surface water quality is still being gained.

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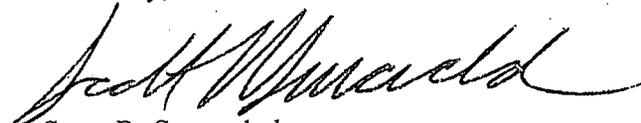
In addition, leading edges of contaminant plumes were not able to be captured by the intercept barriers, and portions of plumes may not be completely captured. This is especially noticeable for the nitrate contaminant plume, as the downstream surface water performance monitoring location results show nitrate levels (as N) below the TM but at several times the underlying standard. Downstream of this performance monitoring location, at Terminal Pond A-4, surface water meets the underlying standard. Consideration of alternatives that may be feasible to improve the reduction of nitrate loading is ongoing. Monitoring for the organic parameters at the surface water performance monitoring locations (three post-closure samples to date) indicate the underlying standards are being met, but this does not yet represent stable hydrologic conditions. Review of additional monitoring results for the triennial review is thus appropriate.

The water monitoring results for the ground water treatment systems and surface water monitoring results are published in the quarterly and annual Surveillance and Maintenance Reports required under RFLMA and are available on the Rocky Flats website at http://www.lm.doe.gov/land/sites/co/rocky_flats/reports.htm.

3. Impact of TM on Uses - There is no actual use of surface water or ground water in the Central OU and surface water flowing from Segment 5 into Segment 4 has in the past met and currently meets the underlying surface water standards. The allowable contaminant levels under the current TMs are also adequately protective of human health and the environment. Thus, there is no impact by retaining the current TMs for revisiting in the 2009 triennial review.
4. Other Factors - As reiterated in the WQCD Proponent's Pre-Hearing Statement, the Commission considered changing the expiration date for the current TMs from 2009 to 2006 during the last triennial review in 2004. The expiration date of 2009 was retained in light of the plans to complete the cleanup and closure and implement the remedial action toward meeting the underlying standards. As discussed above, DOE is continuing on this path.

If you have any questions or require additional information regarding this Responsive Pre-Hearing Statement, please call me or Rick DiSalvo, Assistant Project Manager for DOE's Rocky Flats Legacy Management Contractor. I may be reached at (720) 377-9682 and Rick may be reached at (303) 819-7150.

Sincerely,



Scott R. Surovchak
LM Site Manager

cc:

Project File: RFS-425.20 (Thru S. Willson)
Administrative File (Thru A. Montoya)
Post Closure AR (Thru H. Young)

CERTIFICATE OF SERVICE

I do hereby certify that a true and exact copy of the U.S. Department of Energy's Responsive Pre-Hearing Statement for Proposed Revisions to Current Temporary Modifications for Segment 5 of Big Dry Creek, South Platte River Basin, dated October 29, 2007 was mailed to the following on the 30th day of October 2007:

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