

CIMARRON CORPORATION

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December 22, 2004

Mr. Kenneth Kalman
Low-Level Waste & Decommissioning Projects Branch
Division of Waste Management
Office of Nuclear Materials Safety & Safeguards
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Docket No. 70-925; License No. SNM-928
Response to NRC Comments on Technitium-99 Groundwater Assessment Report

Dear Mr. Kalman:

Cimarron Corporation (Cimarron) submitted Technitium-99 Groundwater Assessment Report in December 2003. NRC commented on this report in a letter dated November 24, 2004. NRC's comment was,

"The licensee should not abandon any of the monitoring wells used in this assessment at this time."

Cimarron conducted additional groundwater sampling during an August – September 2004 sampling event. Groundwater samples collected from numerous wells were analyzed for gross alpha activity, gross beta activity, and Tc-99. Results were provided to NRC on November 8, 2004. None of the results provided to NRC exceeded the license limit for Tc-99 of 3,790 pCi/L.

Cimarron believes it is appropriate at this time to transition monitoring in the U-Pond #1 and U-Pond #2 areas from an environmental monitoring program to a post-decommissioning monitoring program. Consequently, Cimarron proposes the following groundwater monitoring program for Tc-99.

Sampling Locations, Sampling Frequency, and Analytical Parameters

U-Pond #1 - Well 1312 is screened in Sandstone A immediately west of former U-Pond #1. This well is downgradient from U-Pond #1, between the former pond and the drainage way to the west. Historically, this well has consistently yielded the highest gross beta and Tc-99 concentrations of any sampling location in the U-Pond #1 area. Cimarron will utilize groundwater samples from this well to demonstrate compliance with the license criteria for the U-Pond #1 area.

U-Pond #2 – Seep 1208 is a surface water sample point located north of the former U-Pond #2. Although it has historically yielded the highest gross beta and Tc-99 concentrations, it does not represent groundwater. Consequently, concentrations from this sample location should not be used

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to demonstrate compliance with the license limit for groundwater. Monitor wells 1346 and 1347, screened in Sandstones A and B upgradient of this sampling location, have both yielded Tc-99 concentrations far below the license limit. Well 1336A is screened in Sandstone A, and is located downgradient (north) of U-Pond #2. Historically, it is the location that has consistently yielded the highest gross beta and Tc-99 concentrations of any well in the U-Pond #2 area. Cimarron will utilize groundwater samples from this well to demonstrate compliance with the license criteria for the U-Pond #2 area.

Groundwater samples will be collected from Wells 1312 and 1336A on a quarterly basis. Samples will be analyzed for gross alpha and gross beta activity and Tc-99. Sampling will continue on a quarterly basis until eight consecutive quarters of data yield demonstrate that Tc-99 concentrations are consistently below the 3,790 pCi/l limit.

Groundwater samples will be obtained, packaged, transported, and analyzed in accordance with the site Sampling and Analysis Plan. Data will be validated by qualified personnel prior to reporting to NRC.

Monitor Well Abandonment

Upon NRC approval of this Tc-99 groundwater monitoring program, Cimarron will plug and abandon the following wells associated with U-Pond #1:

1311	1313	1340
1341	1345	
T-51	T-52	T-53
T-57	T-58	

Upon NRC approval of this Tc-99 groundwater monitoring program, Cimarron will plug and abandon the following wells associated with U-Pond #2:

1320	1321	1324
1337	1338	1343
1346	1347	
T-54	T-55	T-56
T-59	T-60	T-61

Monitor well plugging and abandonment will be performed in accordance with Oklahoma regulations and the site Sampling and Analysis Plan.

Documentation

Cimarron will provide NRC summary tables presenting groundwater elevations and laboratory results. Field records and copies of laboratory analytical reports generated during sampling events will be retained in the project office and will be available for inspection. Monitor well plugging records will be submitted to the Oklahoma Water Resources Board in accordance with State

regulatory requirements. Copies of field logs and plugging reports will be retained in the project office and will be available for inspection.

Upon NRC approval of this Tc-99 groundwater monitoring program, Cimarron will revise the environmental monitoring section of the Radiation Protection Plan to remove Wells 1311, 1312, 1320, 1324, 1336A, and Seep 1208 from the environmental monitoring program.

When eight quarters of data for either area are consistently below the 3,790 pCi/l Tc-99 groundwater limit, Cimarron will discontinue groundwater monitoring for the area. Cimarron will submit a report to NRC documenting that the criteria in License Condition 27(b) have been met, and will request NRC concurrence that no further groundwater monitoring for Tc-99 need be performed, and that these wells can be plugged and abandoned.

If you have questions or comments, please call me at 405-642-5152.

Sincerely,



Jeff Lux
Project Manager

xc: D. Blair Spitzberg, NRC Region IV
David Cates, DEQ