

July 10, 2019

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Re: Docket No. 70-925; License No. SNM-928
Cimarron Environmental Response Trust
Prioritizing Review of Submittals

Dear Sirs:

In an e-mail dated June 13, 2019, the US Nuclear Regulatory Commission (NRC) requested a list of all items that have been submitted to the NRC for review, including all submittals since the NRC's request for supplemental information (dated February 28, 2019) extending to any additional submittals that the NRC would receive prior to the end of August 2019. In addition, the NRC requested that each submittal would be identified as:

1. A response to NRC requests for supplemental information.
2. A request for licensing actions outside the scope of the decommissioning plan.
3. A request to proceed with actions related to the NRC's role as beneficiary of the trust.

The NRC also requested an explanation of the importance of NRC's response and the priority for each submittal.

Solely as Trustee for the Cimarron Environmental Response Trust (CERT), Environmental Properties Management LLC (EPM) submits herein the requested information. EPM believes the highest priority should be assigned to those documents which must be reviewed to enable agencies to compile a final set of Requests for Additional Information (RAIs). The importance of this review is to provide for a complete and comprehensive set of RAIs; it is our understanding that repeated rounds of RAIs and responses will delay the approval of *Facility Decommissioning Plan – Rev 1* (the DP), currently scheduled for October 2020.

The NRC has indicated that the review of proposed amendments to the license, which are contained in Section 6 of the DP, may be performed separately from the detailed technical

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review of the DP. It should be noted, if the license is not amended in accordance with several of the license amendment requests contained in Section 6 of the DP, the DP cannot be implemented as proposed. The review of proposed license amendments must be performed concurrently with the detailed technical review of the DP. Consequently, although submittals are listed in accordance with the categories requested by the NRC, certain submittals listed under “Documents Related to Licensing Actions” are assigned the same priority as submittals listed under “Documents Directly Related to *Facility Decommissioning Plan – Rev 1*. The items listed in this submittal are presented in the following order:

1. Documents/items directly related to the DP (excluding requests to amend the license).
2. Documents related to licensing actions (both contained in the DP and provided in response to NRC requests for information).
3. Documents related to NRC’s role as the beneficiary of the CERT.

DOCUMENTS/ITEMS DIRECTLY RELATED TO FACILITY DECOMMISSIONING PLAN – REV 1

March 29, 2019 to April 19, 2019 – Documents Referenced in the DP

Section 17 of the DP listed previously generated documents that were referenced in the DP. Few of the referenced documents are available in the NRC’s Agencywide Document Access and Management System (ADAMS). The NRC requested that EPM submit copies of those documents to the NRC’s Public Document Room (PDR) for uploading to ADAMS to facilitate review of the DP. EPM submitted the documents in electronic format via secure file sharing on March 29, 2019. Documents that were generated and scanned prior to 2005 had been scanned at a resolution which prohibits them from being uploaded to the ADAMS. EPM also provided electronic copies of the documents to the NRC on a flash drive during meetings conducted at NRC headquarters on April 4-5, 2019.

On April 18, 2019, the NRC informed EPM that they could not accept files on a flash drive. On April 19, 2019, EPM submitted electronic copies of the files on digital video disk (DVD). ***No further action is required by EPM or DEQ. If review of these documents is required for the preparation of RAIs, this is a high priority for NRC.***

April 15, 2019 – Past Discharge Permits

NRC personnel contacted EPM to request information on any discharge permits that may have been issued in the past. EPM sent two documents to the NRC via e-mail which indicated that discharges to the Cimarron River from 1965 to 1971 were in accordance with a discharge permit

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that had been issued by the Oklahoma Water Resources Board. The NRC indicated that this information was sufficient to address their concerns. ***No further action is required by EPM, NRC, or DEQ.***

April 16, 2019 – Scope of Work for 2019 Characterization

EPM sent a proposed scope of work to construct access “roads” to proposed extraction well locations along the Cimarron River bluff, to conduct vertical profiling of uranium in groundwater at all extraction well locations, and to abandon select monitor wells. DEQ approved this in an e-mail dated May 15 (subject to NRC approval). NRC has not responded to this submittal. ***EPM considers NRC approval of this scope of work a secondary priority to the preparation of RAIs, but this characterization work is needed to complete 90% design.***

E-mail dated May 3, 2019 – Additional Information Requests From the NRC

After the NRC issued the February 28 request for supplemental information, additional requests for information or revisions to the DP were received during several telephone calls. Information and revisions requested included:

1. Revision of figures showing proposed licensed area.
2. Revisions to the DP regarding radiological surveys of subsurface material.
3. Submission of additional documents to the ADAMS.
4. Proposed scope of work, cost estimate, and allocation of funds for Tc-99 treatability testing.
5. Showing subareas on figures showing remediation areas.
6. Conducting final status surveys in all areas disturbed as a result of groundwater monitoring.

In addition, in a May 2, 2019 e-mail, NRC requested that EPM add subarea boundaries to a figure showing the remediation areas, the remediation infrastructure, and the uranium plume. An e-mail dated May 3, 2019 indicated that addressing all of these would be deferred until after EPM submitted the formal response to the February 28 requests for supplemental information. ***No further action is required by EPM, NRC, or DEQ.***

May 3, 2019 – Potential Impact of Tc-99 on Influent, Effluent, and Waste

This letter provided background information on the historical sampling and analysis of groundwater for Tc-99 and a preliminary calculation of the potential concentration of Tc-99 in influent to the Western Area Treatment Facility (WATF). Collecting groundwater samples for Tc-99 analysis and performing a treatability test for Tc-99 were proposed in this letter. Two submittals: one for groundwater assessment, and one for treatability testing, were to be submitted to obtain regulatory approval for each scope of work. ***EPM e-mailed a proposed scope of work***

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for groundwater assessment on May 13, 2019 (further addressed below). Submittal of a scope of work for a treatability test is yet to be submitted. EPM considers NRC approval of the scope of work for groundwater assessment to be secondary in priority to the preparation of RAIs, but this assessment will be conducted in conjunction with the annual environmental monitoring sampling event, so approval by both the NRC and the DEQ is needed by the end of August.

May 6, 2019 – Revisions to DP Figures Showing Remediation Areas

EPM notified NRC that figures in the DP that include a designation of remediation areas in the legend were carried over from the 2015 *Facility Decommissioning Plan*. The designation for some remediation areas were revised in the 2018 *Facility Decommissioning Plan – Rev 1*; those changes were made in the text, but the legends of several figures were not revised accordingly. EPM committed to submit revised figures after finalizing responses to the February 28 requests for supplemental information. ***EPM will submit revised figures to the NRC and the DEQ to facilitate their review of the DP; no further action is required by EPM.***

May 7, 2019 – Responses to February 28 Request for Supplemental Information

EPM submitted the information requested in the NRC's February 28, 2019 request for supplemental information. ***If additional information is required, it is assumed this will be requested in the upcoming RAIs. Review of this submittal is a high priority, because it must be reviewed for the preparation of RAIs.***

E-mail dated May 13, 2019 – Scope of Work for Groundwater Assessment for Tc-99

In this e-mail, EPM submitted a proposed scope of work for the collection of additional groundwater samples for analysis for Tc-99. The cost of the additional work and allocation of those costs was included in the proposal. ***No response by the NRC or DEQ is required, because this proposed scope of work and allocation of costs will be formally submitted as described below.***

June 3, 2019 – Radiological Survey of Subsurface Material

In an e-mail dated May 2, 2019, NRC noted that neither the DP nor the RPP described the radiological monitoring of subsurface soil that is “within the plume and brought to the surface”. EPM provided proposed revisions to Section 12.5.1 of the RPP that state that radiological survey will be conducted for that any soil, concrete, or trash brought to the surface anywhere on site. ***If additional information is required, it is assumed this will be requested in the upcoming RAIs. This is a high priority, because it must be reviewed for the preparation of RAIs.***

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June 7, 2019 – Radiological Survey of Sediment Excavated from the 1206 Drainage

During a telephone call, the NRC explained to EPM that sediment excavated from the 1206 Drainage will be mixed with spoils from injection trenches and placed in a laydown area in Subarea B, which has been released from the license. NRC requested a description of the final status survey that will be performed in Subarea B.

EPM does not believe that a final status survey in Subarea B is warranted; consequently, EPM submitted a letter describing the radiological survey that will be conducted for the mixture (1206 Drainage and injection trench spoils) that will be placed in Subarea B. That radiological survey follows guidance provided in NUREG/CF-5849, which is the final status survey guidance stipulated in license condition 27(c). ***If additional information is required, it is assumed this will be requested in the upcoming RAIs. This is a high priority, because it must be reviewed for the preparation of RAIs.***

July 10, 2019 – Revisions to Figures Showing Remediation Areas

Figures 3-1, 3-2, 3-3, 3-5, and 8-1 from the DP all show the remediation areas; each of these figures have been revised so that the legend for each figure contains the same designation for the remediation areas as the text. In addition, in accordance with a telephone request by the NRC to add Subareas to a figure, Figure 3-3 and 3-4 from the DP were revised to add the Subarea boundaries to the figure. ***This is a high priority, because it must be reviewed for the preparation of RAIs.***

Future Information Submittals – Revisions to Tables 8-3a through 8-3d.

Tables 8-3a through 8-3d of the DP present the sampling locations and parameters for in-process treatment system monitoring, in-process groundwater remediation monitoring, and discharge and injection monitoring. During discussions between EPM and vendors, it was suggested that including sample locations (or sample port locations) shown on Drawings included in Appendix K would facilitate review of the proposed in-process and discharge/injection sampling programs. These tables will be revised and submitted to the NRC and the DEQ. ***This is not in itself a high priority, but it may facilitate review for the preparation of RAIs.***

Future Information Submittals – Proposed Scope of Work, Cost Estimate, and Allocation for Groundwater Assessment for Tc-99

The information provided by EPM in the May 13, 2019 e-mail will be formally submitted for NRC approval. ***EPM considers NRC approval of this scope of work a secondary priority, because this information is not needed to complete review of the decommissioning plan. However, because this information is needed to identify potential operational requirements,***

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primarily related to the frequency of resin vessel changeout and potential impact to biomass, review of this document is important, but should not hinder the preparation of RAIs.

ITEMS RELATED TO LICENSING ACTIONS

March 27, 2019 – Historical Documents Related to Soil in Subarea F.

The DP included figures showing the proposed revisions to licensed and controlled areas. Approving the proposed revisions would result in the release of most of Subarea F from the license. On March 27, 2019, NRC asked to be directed to the appropriate documents which would capture the sequence of activities and correspondence related to the surface and subsurface soil in Subarea F. In a March 27 e-mail, EPM listed the appropriate documents and briefly described the content of each. Electronic copies of these documents were placed on a secure file sharing site, and electronic copies of the documents were provided on a flash drive during the April 4-5 meetings with NRC in Rockville, MD. After several conversations with NRC and because EPM has subsequently agreed to retain Subarea F under license, review of these documents is no longer critical. However, they will later form the basis for ***not*** performing a final status survey for either surface or subsurface soil upon the completion of decommissioning activities. ***No further action is required by EPM, NRC, or DEQ.***

April 1, 2019 – Residual Dose Modeling

The November 2018 proposed budget for 2019 included the development of a probabilistic dose model. The wording of that proposal was such that the NRC was concerned that the purpose for conducting this modeling was to change the decommissioning criterion. An April 1, 2019 clarified the reason to perform the dose modeling as provided for in the revised proposed budget submitted that same day (discussed below). ***No further action is required by EPM, NRC, or DEQ.***

June 7, 2019 – Documents Referenced in License Conditions

The following license conditions reference numerous documents:

- License Condition 10 (addressing decommissioning of soil)
- License Condition 26 (addressing past RPPs)
- License Condition 27(a) (addressing site decommissioning)

NRC requested that these documents be uploaded to the ADAMS, but none of these files comply with the document scan quality requirements for uploading. Consequently, EPM sent electronic

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copies of these documents in three secure file share e-mails. ***This is a high priority, because it must be reviewed for the preparation of RAIs.***

June 7, 2019 – Redefinition of Licensed Areas

After numerous conversations with NRC personnel regarding the release of Subareas G and N, and retaining Subarea F under license, Figures 6-1 and 6-2 of the DP were revised, and a new Figure 6-3 was proposed to be added to the DP. This submittal provided substantiation for all of the revisions and included proposed revisions to Section 6.3 of the DP. ***This is a high priority, because it must be reviewed for the preparation of RAIs.***

July 10, 2019 – Revised Calculation of Chemical Intake

Prior to the May 29, 2019 teleconference, the NRC asked if the calculation of intake of uranium, which was submitted in response to the February 28, 2019 request for supplemental information, could be clarified during the meeting. This requires the involvement of the Radiation Safety Officer (RSO), who was not available for the teleconference. The calculation was provided as Appendix A to the RPP. The RSO contacted NRC personnel to understand NRC's concern, and has revised the calculations based on their discussion. A revised Appendix A to the RPP will be submitted for NRC review. Because this revision incorporates NRC's concerns, it is assumed the review of this can be conducted quickly and easily. ***This is a high priority, because it must be reviewed for the preparation of RAIs.***

ITEMS RELATED TO NRC's ROLE AS THE BENEFICIARY OF THE CERT

April 1, 2019 – Proposed Budget for 2019 – Rev 1

This proposed budget was approved by the DEQ on April 30, 2019 and by the NRC on May 16, 2019. This approval did not include approval of groundwater assessment for Tc-99 or the conduct of a treatability test for Tc-99. ***No further action is required by EPM, NRC, or DEQ.***

April 17, 2019 – Draft Notes – April 17 Teleconference

May 3, 2019 – Draft Notes – April 4-5 Meetings

May 13, 2019 – Final Notes – April 17 Teleconference

May 15, 2019 – Draft Notes – May 15 Teleconference

May 23, 2019 – Final Notes – April 4-5 Meetings

May 30, 2019 – Draft Notes – May 29 Teleconference

July 1, 2019 – Final Notes – May 29 Teleconference

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No further action is required by EPM, NRC, or DEQ for any of the above notes on meetings and teleconferences.

June 28, 2019 – 2019 GW Evaluation Update

This document provides an update of the quarterly groundwater sampling and evaluation initiated in 2015 to assess the potential correlation of contaminant concentrations with depth to water (inversely proportional to the thickness of the saturated aquifer) or season. This is the final groundwater evaluation update; quarterly sampling and analysis has been terminated. Because the conclusion continues to assert that there is no consistent correlation between contaminant concentration and either depth to water or season, this has a very low priority. ***NRC and DEQ should review this document when such review will no longer impact the review of the decommissioning plan.***

Future Information Submittal – Scope of Work for Treatability Test for Tc-99

Data from the 2013 treatability tests indicates that the ion exchange resin will absorb Tc-99 but did not provide any information on the concentration of Tc-99 in effluent. EPM, Burns & McDonnell, and VNSFS personnel are developing a scope of work for a treatability test to determine the effectiveness of the ion exchange system to remove Tc-99 from the influent groundwater. ***NRC and DEQ review of this document is needed when such review will no longer impact the review of the decommissioning plan. The information from this test will be needed to finalize operational plans.***

A hard copy of this document is being sent to the NRC PDR to be scanned and uploaded to the NRC's public document repository. Should you have any questions or desire clarification, please contact me at (405) 641-5152.

Sincerely,



Jeff Lux, P.E.
Project Manager

cc: Mike Broderick, Oklahoma Department of Environmental Quality (electronic copy)
NRC Public Document Room (electronic copy)