

September 21, 2005

Mr. Jeff Lux, Project Manager
Kerr-McGee SE&A Division
Kerr-McGee Center
P.O. Box 25861
Oklahoma City, OK 73125

SUBJECT: KERR-MCGEE CUSHING REFINERY SITE, REQUEST FOR ADDITIONAL
INFORMATION - SECTOR 6 FINAL STATUS SURVEY REPORT (FSSR)
ADDENDUM AND FSSR FOR SECTORS 7, 8, 9, 10, AND 11

Dear Mr. Lux:

This letter responds to the following submittals by Kerr-McGee Corporation concerning the Cushing Refinery Site, Cushing, Oklahoma: the March 8, 2005, letter transmitting Technical Memorandum 04-27, the Sector 6 Final Status Survey Report (FSSR) Addendum; the March 8, 2005, letter transmitting the Sectors 7 and 11 FSSRs; the March 15, 2005, letter transmitting the Sector 8 FSSR; the April 25, 2005, letter transmitting the Sector 9 FSSR, and; the April 28, 2005, letter transmitting the Sector 10 FSSR. This letter also partially responds to your June 15, 2005, letter requesting release of the entire site for unrestricted use, license termination, and approval to immediately discontinue the radiation protection program between now and license termination.

The U.S. Nuclear Regulatory Commission has completed its review of the Sector 6 FSSR Addendum and the FSSRs for Sectors 7, 8, 9, 10, and 11. The review of the FSSRs was conducted by staff of the Environmental Survey and Site Assessment Program (ESSAP) at the Oak Ridge Institute for Science and Education. The ESSAP comments on these reports were previously transmitted to you via e-mail and are included as an Attachment to this letter as a Request for Additional Information (RAI).

Please provide responses to the RAI, and any revisions to the FSSRs as appropriate, by October 15, 2005, so that we may continue to consider your request to release the entire site and to terminate the license for the Cushing Facility.

J. Lux

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If you have any questions or comments, please call me at (301) 415-6677.

Sincerely,

/RA/

Derek A. Widmayer, Project Manager
Decommissioning Directorate
Division of Waste Management and
and Environmental Protection
Office of Nuclear Material Safety
and Safeguards

Docket no.: 70-3073
License no.: SNM-1999

Enclosure: Request for Additional Information

cc:
Blair Spitzberg, RGN IV
Cushing Public Repository
Michael Broderick, ODEQ

J. Lux

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Kerr-McGee Cushing Refinery Site Decommissioning Project

Requests for Additional Information on the Sector 6 Final Status Survey Report (FSSR) Addendum and Sectors 7, 8, 9, 10, and 11 FSSRs

**Kerr-McGee Corporation
Cushing, Oklahoma**

Sector 6 FSSR Addendum

1. Attachments E and F, pages 27 and 37, Tables 3 and 1: The U-235 concentration values in both tables exceed those reported for both the U-238 and U-234, indicating enriched uranium. However, it is likely that the data columns for U-235 and U-234 may have been transposed. Please review the data and correct if appropriate or otherwise address this discrepancy in isotopic abundances.

Sector 7 FSSR

No Comments

Sector 8 FSSR

1. Section 4.1.3.3, page 21: The section discusses the identification of two soil samples exceeding the fraction of the maximum permissible concentration (FMPC). The document does not indicate whether these locations were identified for sampling as a result of surface scans—Sections 4.2.4 or 4.2.5 do not specifically provide this information—or from the systematic sampling. This is relevant to confirmation of the surface scan minimum detectable concentrations (MDCs). Furthermore, the reviewer interprets that these samples were collected from Survey Unit 808 which is listed as an undesignated area in Table 2.1 on page 6. With the identification of residual activity in excess of the FMPC, was this survey unit, or portions thereof, reclassified as affected?

2. Table 4.5, page 26: There are two data sets listed for the direct beta activity for Building A-5 Warehouse Pad. Please provide additional information to explain the two sets of beta data for this area.

Sector 9 FSSR

1. Appendix D, Pages 44 and 45, Table 3: The beta activity listed for several of the Building A-9 surfaces is consistently reported as 194 dpm/100 cm². Is this the static measurement MDC for the instrument? If so, this is not consistent with the reporting of the actual measured activity shown for all remaining areas. Please clarify.

Sector 10 FSSR

1. Section 4.1.2.4, page 21: The section discusses the identification of soil samples exceeding the FMPC. The document does not indicate whether these locations were identified for sampling as a result of surface scans—Sections 4.2.4 or 4.2.5 do not specifically provide

this information—or from the systematic sampling. This is relevant to confirmation of the surface scan MDCs.

Sector 11 FSSR

1. Section 4.1.2.4, page 21: The section discusses the identification of soil samples exceeding the FMPC. The document does not indicate whether these locations were identified for sampling as a result of surface scans—Sections 4.2.4 or 4.2.5 do not specifically provide this information—or from the systematic sampling. This is relevant to confirmation of the surface scan MDCs.