October 26, 2004

Ms. Susan Crowley
Kerr-McGee Chemical LLC
PO Box 55
Henderson, Nevada 89009

Re: **Kerr-McGee Chemical Corporation LLC (KM)**
**NDEP Facility ID #H-000539**
Nevada Division of Environmental Protection Response to:
*Kerr-McGee Response to NDEP's 9-8-04 Comments*

Dear Ms. Crowley,

The NDEP has received and reviewed KM's correspondence identified above and provides comments in Attachment A. The NDEP requests that KM respond to these issues **by November 29, 2004**.

If there is anything further please do not hesitate to contact me.

Sincerely,

Brian A. Rakvica, P.E.
Staff Engineer III
Remediation and LUST Branch
Bureau of Corrective Actions
NDEP-Las Vegas Office

CC: Jim Najima, NDEP, BCA, Carson City
Jon Palm, NDEP, BWPC, Carson City
Todd Croft, NDEP, BCA, Las Vegas
Jennifer Carr, NDEP, BCA, Carson City
Jeff Johnson, NDEP, BCA, Carson City
Valerie King, BWPC, Carson City
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Barry Conaty, Akin, Gump, Strauss, Hauer & Feld, L.L.P., 1333 New Hampshire Avenue, N.W., Washington, D.C. 20036
Brenda Pohlmann, City of Henderson, 240 Water Street, Suite 210, Henderson, NV 89015
Mitch Kaplan, U.S. Environmental Protection Agency, Region 9, mail code: WST-5, 75 Hawthorne Street, San Francisco, CA 94105-3901
Carrie Stowers, Clark County Comprehensive Planning, PO Box 551741, Las Vegas, NV, 89155-1741
Ranajit Sahu, BEC, 875 West Warm Springs Road, Henderson, Nevada 89015
Craig Wilkinson, TIMET, PO Box 2128, Henderson, Nevada, 89009-7003
Kirk Stowers, Broadbent & Associates, 8 West Pacific Avenue, Henderson, Nevada 89015

## ATTACHMENT A

1. KM Response to Comment #2, the NDEP's would like to note that the original comment deals with the issue of the total outflow concentrations from the groundwater treatment system (GWTS) to pond GW-11 exceeding the USEPA MCL of 0.1 mg/L. KM's response addresses the existing consent order and UIC permit which does not answer the NDEP's original question. This USEPA MCL corresponds to the discharge limit specified in KM's NPDES permit. There is also a limit of 0.01 mg/L specified for hexavalent chromium in the existing NPDES permit. Water from the GW-11 pond is eventually discharged via this NPDES permit and it is the belief of the NDEP that the performance of the chromium system directly relates to this NPDES permit.

   The NDEP understands that the existing concentrations in the NPDES discharge are within permit limitations, however, the NDEP would like to understand the following: is the system operating as expected?; have any changes been made to the treatment system that would cause this increase in discharge concentration? Are any future modifications or repairs anticipated that will reduce the concentration of chromium in the discharge?

   It is the understanding of the NDEP (based on KM's response) that KM's solution to the elevated levels of chromium in the discharge of the treatment system is as follows: the flow from pond GW-11 is re-run through the chromium treatment system prior to addition to the FBRs and the chromium concentrations are further reduced by the addition of large volumes of lower concentration water from the Seep area and Athens Road well field. If this understanding is not correct please provide clarification.

   Please explain the increase in discharge concentration in the months of May and June 2004 from the GWTS to pond GW-11. Also, if any more current data (for average total chromium for the treated outflow as labeled in Table 4 of the semi-annual report) is available please provide that information as well.

2. KM Response to Comment #4, the NDEP concurs that it is not necessary to sample non-KM wells outside the vicinity of the site plume. As the plume is better defined, it may become necessary to sample non-KM wells that are not currently sampled. The NDEP also requests that KM provide the chromium iso-concentration maps and the potentiometric surface maps with both semi-annual reports.
3. KM Response to Comments #5 and #6, the NDEP agrees with the proposed installation of additional wells. It is suggested that soils data be collected and analyzed in any locations where wells are drilled. Please include well M29 in the next round of sampling to provide further delineation of the chromium plume in the vicinity of Unit 6. Also, it appears that the plume is not well defined in the vicinity of wells M100, M111, and H38. Please review the feasibility of including some or all of these wells in the next round of sampling. There also appears to be

a large data gap between the Athens Road well field and the northern extent of the data presented on plate 1. There are a number of wells in this area that may be suitable for sampling. It is also requested that KM carefully review the plume maps and review the sufficiency of the data used to develop the iso-concentration contours. If additional sampling is needed to define the plume it is suggested that the additional wells be included in the next round of sampling.

4. KM Response to Comment #7, the NDEP disagrees with KM's contention that the operation of the chromium remediation system (and the perchlorate remediation system) is not a driving issue behind the design of the capture systems. The NDEP will accept KM's position, however, please be advised that future modifications to the treatment system should not be limited by pond capacity. It is understood that the operation of the perchlorate remediation system is eventually intended to accept the entire existing flow rate from the existing chromium treatment system.
5. KM Response to Comment #8, the NDEP does not have any information to suggest that a reducing environment exists and is converting the KM hexavalent chromium plume to trivalent chromium. Also, this response does not address the issue of the total chromium plume and it's migration towards the Las Vegas Wash. If KM is aware of a natural attenuation mechanism for the reduction of hexavalent chromium to trivalent chromium, it is requested that this information be presented to the NDEP.
6. KM response to Comment #9, please provide a schedule for the submission of the report on the testing of the ferrous sulfate system. Also, please note that if KM plans to adopt the ferrous sulfate system on a larger scale, an evaluation of the expected NPDES discharge concentration of iron should be included. This evaluation should include mass balance calculations and analytical data to support the conclusions presented.