RCAP-RECEIVED

MAY 03 2010

KOCH

KOCH NITROGEN COMPANY LLC

April 30, 2010

UPS Tracking # ***1Z 693 661 03 9135 3331***

Director, RCRA Corrective Action & Permits Branch
Air, RCRA and Toxics Division
U.S. Environmental Protection Agency Region VII
901 North Fifth Street
Kansas City, Kansas 66101

RE: Koch Nitrogen Company, LLC – Dodge City, Kansas
EPA ID No. KSD044625010
Quarterly Progress Report for First Quarter 2010

Ladies/Gentlemen:

In accordance with Section C.13 of the above referenced Permit, Koch Nitrogen Company, LLC (KNC) hereby submits the enclosed original and duplicate of the Quarterly Progress Report for the First Quarter of 2010.

If you have any questions about the attachments, please contact Elise Stucky-Gregg at (620) 227-8631, ext. 350.

Sincerely,

Gary J. LeRock

Gary J. LeRock
Plant Manager

cc w/ encl:

UPS Tracking #: **1Z 693 661 03 9209 9749**
Andrea Stone, U.S. Environmental Protection Agency
Region VII, Kansas City, KS

UPS Tracking #: **1Z 693 661 03 9382 5354**
Kansas Department of Health and Environment,
Bureau of Waste Management, Topeka, KS

Tom Siegrist, Koch Fertilizer, Wichita. KS (electronic copy)
Elise Stucky-Gregg, KNC Dodge City, KS

505792
RCRA

620.227.8631 Tel
620.227.6016 Fax

11559 U.S. Highway 50
P.O. Box 1337
Dodge City, Kansas 67801-1337

QUARTERLY PROGRESS REPORT
1st QUARTER 2010

DODGE CITY NITROGEN PLANT
KOCH NITROGEN COMPANY, LLC

EPA ID NO. KSD044625010

April 30, 2010

CERTIFICATION STATEMENT

In accordance with Sections B.2.b and B.22 of the Part II Permit, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

By: Gary J. LeRock

Gary J. LeRock
Plant Manager

A description of the work completed (Part II Permit Section C.13.a): This Quarterly Report covers activities in the first quarter of 2010, during which KNC accomplished the following work:

- The first quarter groundwater sampling event was completed on February 16, 2010. As requested by EPA, KNC has supplemented our approved SAP methods to include differentiation between trivalent chromium (Cr+3) and the hexavalent form (Cr+6), and between nitrate (NO3) and nitrite (NO2).

- KNC continued work on several stormwater projects near the boundaries of various AOCs, SWMUs and monitoring/recovery system structures. The projects include the following;

    1. Sunflower Tank: repair walls and provide paved vehicular/pedestrian access into containment. – Complete
    2. NH3 Process and Utility Area: grade area and provide drainage for runoff. – Complete
    3. Drum Corral: pave area within corral and install perimeter berm. – Complete
    4. Sanitary Lagoon: line north cell and maintain south cell for backup. – In progress (see Phase II RFI Work Plan Addendum No. 3 discussion below)
    5. Fire Engine Building: Establish containment and repair paving. – In progress

- KNC continues to monitor the leak detection system of the Recovery RO Equalization Basin to ensure that the basin liner repairs are functioning to their designed specifications. Upon determination that the repairs are complete, KNC will submit a report presenting the details of the construction, the sampling and analytical results, and the completion of the requirements in the KDHE authorization letter of November 5, 2008.

- In response to EPA's request by letter dated January 4, 2010, KNC submitted a Phase II RFI Work Plan Addendum No. 2 on January 22, 2010. This addendum proposed soil sampling locations to address the seepage from the Recovery RO Equalization Basin, as well as leakage from well TW-83 as reported to the agencies by letter dated July 29, 2009. KNC received approval of the Phase II RFI Work Plan Addendum No. 2 with comments by letter dated March 19, 2010 and responded to the comments by letter dated April 20, 2010.

- KNC continued work on the stormwater project to line the north cell of the sanitary lagoon. KNC discussed the sequencing of this work and continued assessment work with EPA and KDHE. The agencies expressed a preference for completion of delineation of the north cell before any construction-related repair work to the north cell of the lagoon system is undertaken. KNC submitted a Phase II RFI Work Plan Addendum No. 3 by letter dated March 31, 2010 to address the delineation of the north cell of the sanitary lagoon system.

- In response to KDHE's O&M report of September 3, 2009, KNC installed a drainage pipe to divert stormwater away from TW-38 on January 27, 2010.

- KNC worked with KDHE to Update the RCRA facility mailing list.

Summaries of all findings, including summaries of laboratory data (Part II Permit Section C.13.b): First quarter findings include the following:

- KNC continued the evaluation of Phase II soil sampling results as reported last quarter. The results appear consistent with the probable historical source of chromium releases and with current understanding of the behavior of chromium and nitrates in the environment, as described in the 1st Quarter 2009 Progress Report. KNC is evaluating the results as three-dimensional data presentations through Rockware and ArcView to develop further recommendations to be presented upon completion of the Phase II (Tier I) soil sampling.

- Laboratory results from the first quarter 2010 groundwater sampling event were also evaluated during the quarter. The results were consistent with those of the previous quarter. Only small changes in chromium and nitrate concentrations were observed.

Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems (Part II Permit Section C.13.c): No significant problems were encountered during this reporting period.

Projected work for the next quarter (Part II Permit Section C.13.d): In the next quarter (Second Quarter 2010), KNC expects to conduct the following work under Part II of the permit:

- KNC will continue the sampling of AOCs and SWMUs in accordance with the Phase II RFI Work Plan as weather permits and the drilling contractor is available. Upon completion of the Phase II (Tier I) soil sampling, KNC will submit the results and any additional proposed Phase II (Tier II) soil sampling location as described in the approved Phase II Work Plan.

- Although not a part of the Part II permit requirements, KNC anticipates that the Second Quarter 2010 Groundwater Sampling will be completed by the end of April. As indicated in the 4th Quarter 2009 Progress Report, KNC will perform additional sampling to characterize VOCs in the area surrounding SWMU 7.

- Although not a part of the Part II permit requirements, KNC will submit the 2009 Annual Groundwater Corrective Action Report by April 30, 2010.

- KNC will continue to coordinate sampling at the sites of the miscellaneous spills from the recovered water system with the main elements of the Phase II field investigation per Addendum No. 1 to the Phase II RFI Work Plan.

- KNC will continue to coordinate sampling at SWMU 14 and the area surrounding TW-83 with the main elements of the Phase II field investigation per Addendum No. 2 to the Phase II RFI Work Plan.

- KNC will continue monitoring the leak detection system of the Recovery RO Equalization Basin to ensure that the repairs are functioning to their designed specifications. Upon determination that the repairs are complete, KNC will submit a report presenting the details of the construction, the sampling and analytical results, and the completion of the requirements in the KDHE authorization of November 5, 2008.

- Upon receipt of an approval from EPA, KNC will implement Addendum No. 3 to the Phase II RFI Work Plan.

- KNC received comments from EPA on the Phase II RFI Work Plan Addendum: Groundwater Characterization by letter dated April 02, 2010. KNC will respond to the comments and submit revisions by June 11, 2010.

Any instances of noncompliance with Part II of this permit not otherwise required to be reported pursuant to Part II Permit Conditions B.18 (Part II Permit Section C.13.e): To the extent that the Part II Permit includes requirements to continue implementation of the existing groundwater monitoring, recovery, and treatment system, supplemental information regarding potential instances of noncompliance is described in the attached document.

SUPPLEMENTAL INFORMATION
SUBMITTED WITH THE
FIRST QUARTER REPORT 2010
Koch Nitrogen Company, LLC
Dodge City, Kansas
EPA ID No. KSD044625010
April 30, 2010

Pursuant to Section I.E. 14 of the Hazardous Waste Management Facility Permit, Part I (Part I Permit), Koch Nitrogen Company, LLC (KNC) is required to "report all other instances of noncompliance not otherwise required to be reported above in Sections Permit Conditions I.E.10 through I.E.13, at the time monitoring reports are submitted."

The following items have been previously discussed with the Agencies, who have indicated that they do not consider these to be deviations. However, because there are inconsistencies between certain permit documents, or between the language in these documents and best practices (e. g., use of most recent and accurate analytical methods), KNC is listing these items to meet the intent of Section I.E. 14 of the Part I permit.

KDHE and KNC have previously discussed and revised a request for modifications to the Part I Permit to ensure consistency of wording and to clarify the acceptable use of alternate methods. KDHE and EPA have previously suggested in informal discussions that there may be more effective approaches to managing the permit; for example, EPA has indicated that they prefer to consolidate the two parts of the Permit. At the meeting of May 15, 2009, KDHE indicated that its O&M report would propose recommended changes to Part 1 of the permit. KNC subsequently received the O&M Plan, and as noted above, incorporated information it contained into the Phase II Work Plan Addendum: Groundwater Characterization submitted to EPA on October 28, 2009. KNC also submitted the requested responses to the O&M Plan on October 30, 2009. These responses proposed an approach and a schedule to address updating of the permit.

1. **Private Wells**. Attachment D of the Part I Permit, and the September 7, 2001 RCRA Groundwater Sampling and Analysis Plan (SAP) (page 4) identify ten private wells that are to be sampled quarterly.
    - Plumbing at the Coker well was disconnected in 2005, and the well has not been sampled since that time. The Cokers have been connected to the City of Dodge City water system since the fall of 2004.
    - The Bogners have been connected to the City of Dodge City water system since the fall of 2005. KNC continues to sample their well, where the analyte of concern is nitrogen species above the MCL. During the second quarter 2009 sampling event, Mr. Bogner indicated that he had not used the well in recent months.
    - It has not been possible to sample the Chaffin well since 2007, as previously noticed to KDHE. The current owner still had electrical power to the site turned off during the 1st quarter 2010 sampling. KNC will continue to monitor the Chaffin Well status, and, if conditions permit, the well will be sampled.

2. **Nitrogen Laboratory Method**. Section I.E.9.a of the Part I Permit specifies that chemical analyses must be those specified in the U.S. Environmental Protection Agency (EPA) Publication SW-846. The SAP indicates that the method to be used for nitrate plus nitrite analysis will be EPA Method 353.2. Based on direction from the Agencies, KNC is using the latest approved methods for all analytes. In addition, at the direction of EPA, KNC began nitrate-nitrite speciation on these compounds. KNC anticipates that the small inconsistency among the permit conditions, the SAP requirement, and the Agencies' preference for most recent methods, and perhaps expanded methods, will be resolved by the selection of the agreed-upon permit management option.

3. **Nitrogen Species Measured**. Section I.E.9.a, and Attachment D of the Part I Permit state that the Permittee shall determine the concentrations of "nitrate" throughout the compliance period and any extension due to corrective action implementation according to the schedule set out in the SAP. There is no reference to testing for "nitrite" in the Part I Permit. However, Attachment C of the Part I Permit specifies that the Ground Water Protection Standard (GWPS) will be nitrate plus nitrite as N (See Part I Permit Attachment C). Table 2.3 of the SAP specifies that the groundwater sampling parameters should include nitrate plus nitrite. KNC has analyzed for nitrate plus nitrite as N since 2004. As noted above, KNC is currently speciating nitrate and nitrite at the direction of EPA in addition to the analysis previously agreed on.

4. **Field/Laboratory Forms**. Section IV.C.3.b of the Part I Permit provides that the Permittee will comply with the Ground Water Monitoring Plan set out in the Part B Permit Application. The Ground Water Monitoring Plan in the Part B Permit Application states that the data will be reported on Field Sampling and Laboratory Results Data Sheets (see Section E, p. E-2). KDHE has clarified that any format that includes all required data is acceptable. KNC anticipates that this issue will be resolved by the selection of the permit management option referenced above.

5. **Recovery Well Operation**. Wells TW-2, 4 and 8, and TW-79 have been identified in the Part I Permit as recovery wells (Part I Table 1 IV.C.1.a and Attachment D). KNC has noted previously, and KDHE and EPA have acknowledged, that TW-2 and TW-79 are not used for recovery, due to insufficient water level and the original well design, respectively. As previously noted, the regional drop in water level has caused the level in several of the monitoring/recovery wells to fall below the well pump, making it impossible to continue to utilize these wells for recovery and sampling. KNC has noted previously that the regional drop had impacted wells TW-4, TW-8, TW-36, and the "CP" wells. KNC will continue to document any wells that are affected by the regional water table changes.

6. **Alternate Field Meters**. The SAP in Section E, Appendix F of the Part B Permit Application provides that a multi-parameter water quality meter (MP20 Flow Cell) will be used during low-flow groundwater purging (See page 15 of SAP). The Agencies have previously acknowledged that nonfunctional equipment should be replaced with newer equipment that offers a higher degree of accuracy and reliability.

KDHE provided an O&M Inspection Report to KNC, dated September 3, 2009, which contained some items described as deficiencies and identified by KDHE relating to the groundwater monitoring system. It is not clear whether those items are required to be disclosed in this report, but in the interest of completeness, KNC includes those items below:

1. **Evidence of water retention near Well TW-38.** – Completed on January 27, 2010.

2. **Field forms contained incorrect date.** – Completed.

3. **Recommendation to propose static water level monitoring network separate from the existing recovery well network.** – In progress. To be proposed after evaluation of the work to be completed upon approval of the RFI Phase II Work Plan Addendum: Groundwater Characterization.

4. **KNC incorrectly included Dakota wells on chromium and nitrate-nitrite concentration maps.** - Completed

5. **Total depth measurements not reported on field forms.** – Completed. KNC has created a new well maintenance form that will be used to ensure recording of total depth field measurements.

6. **See item 3.**

7. **KDHE will no longer accept potentiometric surface maps that include water level measurements from operating recovery wells.** – Completed. KNC will ensure that all future maps will include non pumping wells.