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BUREAU OF WASTE MANAGEMENT



KOCH NITROGEN COMPANY

May 4, 2004

Via Overnight Mail

Mostafa Kamal, P.E.
Chief, Hazardous Waste Permits Section
Kansas Department of Health and Environment
Bureau of Waste Management
1000 SW Jackson St., Suite 320
Topeka, KS 66612-1366

Re: ~~Koch Nitrogen Company - Dodge City Facility~~
EPA ID No. KSD 044625010

Dear Mr. Kamal:

Thank you for your letter of March 22, 2004. We are pleased with the progress that we have made in discussions with yourself and other representatives of the Kansas Department of Health and Environment and the U.S. Environmental Protection Agency and as a result of these collaborative discussions we submit as attachments to this letter the following documents:

1. Redlined Part B Application, showing all changes from the original Part B on which our permit is based (including the changes submitted in December, 2003);
2. Final Part B Application, with all Sections and Appendices;
3. Certification in accordance with 40 CFR 270.11; and
4. Summary of agency comments and responses.

We believe that these documents will satisfy the requests you have made and we look forward to quickly resolving any open issues relating to our permit so that we can move forward with implementation of our closure and corrective action process.

I noticed in your letter of March 22 that you expressed concerns about our qualified certification relating to the activities of the past plant owner. We have addressed those concerns in discussions with your staff by indicating in the Part B document itself where we are relying upon the administrative record that exists in this permitting action to supply factual information



and other historical statements. Please be assured that we in no way intend to step back from any commitment or responsibility that Koch Nitrogen Company has assumed as the new owner of the Dodge City facility.

I am confident that through our actions we have demonstrated to date, and that we will continue to demonstrate in the future, the importance that we place on environmental compliance and protection. We look forward to working with you on the implementation of the permit.

Sincerely yours,

KOCH NITROGEN COMPANY

By: Larry Angell
Larry Angell
Its: Vice President 

Enclosures

cc by certified mail, w/ encl:

U.S. EPA, Attn: Chief, RCRA Corrective Action and Permits Branch
Air, RCRA and Toxics Division, 901 N. 5th St., Kansas City,
Kansas 66101

cc by regular mail, w/o encl:

Katherine Dunn, KDHE
Bill Bider, KDHE
William Anderson, Esq., KDHE
Andrea Stone, US EPA
Alex Chen, Esq., US EPA
Gary LeRock, KNC
Brian Moore, KNC
Frank Van Ryn, Reiss
Stephen Ellingson, KMS
Laurie Sahatjian, Esq.
Stephen Richmond, Esq.

Agency Comments and KNC Responses

I. KDHE COMMENTS:

General Comments

1. Comment:

The application must include a Table of Contents. Since neither version of the application submitted to KDHE contains a Table of Contents, it is unclear if all sections and appendices have been included in the application.

Response:

KNC has included a Table of Contents in the RCRA Part B Application.

2. Comment:

The closure plan, submitted on January 14, 2004, is part of the Part B Permit Application. Not only should the application reference the closure plan and include the plan as an appendix, the closure plan should be made available for public review. Please have a copy of the plan available for public review at the Dodge City Public Library.

Response:

KNC will place a copy of the Closure Plan in the Dodge City Public Library.

3. Comment:

Throughout the application the word "reportedly" was inserted in the text. Remove the word, as the historical environmental activities and operations at the facility are documented in KDHE and EPA files. If necessary, the information can be verified through a review of the files.

Response:

KNC reviewed the application where the word "reportedly" was inserted in the text. Based on the review, where appropriate, additional language describing the situation was added or if based on file reviews the word "reportedly" was deleted. However, in an effort to certify the Application without any qualifying language, additional text "the record reflects" was added throughout the document.

Part B Comments

1. Comment:

Section B-1, page B-1, first paragraph: the former wastewater ponds include the north, south, and east ponds. The text has been modified to imply the ponds were constructed on approximately 40 acres. This is inaccurate; the cumulative acreage of the 3 ponds is approximately 75 acres.

Response:

The original language was indicating the north and south pond were constructed on approximately 40 acres and not the east pond. However, KNC has modified the language to include the east pond in the description and to reflect the cumulative acreage of all 3 ponds at approximately 75 acres.

2. Comment:

Section B-1, page B-1, second paragraph: the last sentence of this paragraph must be removed. The historical environmental activities at the facility are documented in KDHE and EPA files. If necessary, the information can be verified through a review of the files.

Response:

KNC has removed the last sentence in Section B-1, page B-1, second paragraph.

3. Comment:

Section B-1, page B-2, first paragraph: in contradiction to previous text, this paragraph states the three ponds cover 75 acres (See comment No. 1)

Response:

See Response to comment No. 1.

4. Comment:

Section B-1, page B-2, second paragraph: the text should clarify where the stormwater from the plant process area drains.

Response:

The following text has been added: "The process stormwater from the Facility currently drains into either the wastewater drains located inside the process areas, where it is disposed of in one of the two underground injection wells, or the earthen ditches, where it flows to the north pond or towards the east field."

5. Comment:

Section B-1, page B-3, second paragraph: the removed text which lists the components of the recovery and treatment system (recovery wells, 2.8 million gallon equalization tank, 300,000 gallon wastewater tank, filtration system, and two Class 1 non hazardous injection wells) should be retained in the text.

Response:

The following text has been added: "The groundwater recovery and treatment system for the reduction of chromium contamination currently in use consists of recovery wells, an electrochemical reduction unit, a settling basin, a 2.8 million gallon equalization tank, a 300,000 gallon wastewater tank, a filtration facility, and two Class I non-hazardous injection wells."

6. Comment:

Section C, page C-1, third paragraph: the text should reference the closure plan, submitted on January 14, 2004 to complete closure in accordance with requirements of 40 CFR 264.228.

Response:

The following text has been added: "A Closure Plan was submitted on January 14, 2004, in accordance with Section III.B of Part I of the RCRA Permit, as amended."

7. Comment:

Section D, page D-1, first paragraph: remove the sentence "Staffing, and hours of operations, may vary..."

Response:

No change.

Under 40 CFR 264.14, we are required to have either 24 hour surveillance or a barrier such as a fence. KNC currently maintains both the surveillance and the fence, but is only required to maintain one of these as a security measure. We are concerned that the suggested language deletion will bind KNC to maintain both measures. If this presents a problem, we can propose to discuss only the barrier system in the application.

8. Comment:

Section E-1, page E-1, first paragraph: remove the last sentence.

Response:

The last sentence in Section E-1, page E-1, first paragraph has been deleted from the text.

9. Comment:

Section E-2, page E-1, last paragraph: the text in this paragraph states groundwater monitoring activities will continue until the constitutes of concern at the compliance points have been reduced to below the groundwater protection standard. In addition, the text states this reduction cannot be predicted. In contrast, the cost estimate in Section H is based on a reduction of monitoring activities over time. Koch's cost estimate must be calculated based on the requirements of the current permit conditions and cannot estimate the cost on future reductions in the monitoring program.

Response:

KNC has revised the Cost Estimate in Section H to reflect the requirements of the current permit conditions, which is not based on any future reductions in the monitoring program.

10. Comment:

Section E-2, page E-2, within this section and throughout the application: reference is made to the currently approved Sampling and Analysis Plan (SAP). The SAP is part of the Part B Permit Application and requires a permit modification prior to implementing changes to the SAP. Removed all "currently approved" text and provide reference as "the SAP, Section E, Appendix F.

Response:

KNC has deleted "currently approved" text and it now reads "the SAP, Section E, Appendix F as the same may be modified by either EPA or KDHE".

11. Comment:

Section E-2, Page E-3, last paragraph: remove the text "and final closure of the CDU and other SWMUs at the Plant is obtained from KDHE." Groundwater monitoring will continue until the groundwater protection standard has not been exceeded at the point of compliance for three consecutive years. Revise the text by inserting the word "consecutive" between three and years.

Response:

The text "and final closure of the CDU and other SWMUs at the Plant is obtained from KDHE" has been deleted and the following text has been added: "Groundwater

monitoring will continue until the groundwater protection standard has not been exceeded at the point of compliance for three consecutive years.”

12. Comment:

Section F-1, page F-1, first paragraph: the text should reference the closure plan, submitted on January 14, 2004 to complete closure in accordance with requirements of 40 CFR 264.228.

Response:

The following text has been added: “A Closure Plan was submitted on January 14, 2004, in accordance with Section III.B of Part I of the RCRA Permit, as amended.”

13. Comment:

Section F-5, page F-2, first paragraph: the text states “corrective action will be considered complete when the groundwater protection standard has not been exceeded at and beyond the point of compliance for a period of 3 years. Insert the language “consecutive” between the words “three years.”

Response:

The language “consecutive” has been inserted between the words “three years.” KDHE has also been removed from the text and “the appropriate agency” has been added due to the pending Permit Modification between EPA and KDHE.

14. Comment:

Section F-7, Notice in Deed, the notice in deed to property is a requirement of K.A.R. 28-31-8(c). It is unclear if Section K has been retained in this permit modification request.

Response:

Section K has been retained in this permit modification request. Originally no modifications were made to Section K, Notice in Deed, so the section was not included; however, a Table of Contents has been added to the Permit Application indicating which sections are applicable in this modification.

15. Comment:

Section F-9, page F-3: the text indicates operation of the recovery system will be altered as the plume size decreases. KDHE must approve any altered operations of the recovery system and will require permit modification in accordance with 40 CFR 270.42.

Response:

KNC has deleted the paragraph referencing altering the recovery system when the plume size decreases. KNC recognizes the need for a permit modification when this occurs and will request a permit modification at that time.

16. Comment:

Section F-10, page F-14: the text indicates the UIC permits are enclosed as attachments to the application. Please include and indicate where the UIC permits are located in the application.

Response:

The reference to the UIC permits in the enclosed attachments has been deleted from the text.

17. Comment:

Section H, Cost Estimate: the cost estimate is inadequate. In accordance with Permit Condition II.J., Koch must provide a cost estimate and financial assurance for closure, post-closure, and corrective action. The cost estimate submitted with this modification must be revised to include the cost of corrective action, must be calculated based on the requirements of the current permit conditions and application, and cannot estimate costs for future reductions in the monitoring program (see comment No. 9).

Response:

A revised Cost Estimate has been included in Section H which is based on the requirements of the current permit conditions and application.

18. Comment:

Section L-1 page L-1, first paragraph: the text indicates four additional Solid Waste Management Units (SWMU) have been identified. The map reference, Figure 4-1 of the RCRA Facility Assessment, does not include the location of the newly identified SWMUs. Provide a map in the Part B Permit Application which illustrates the location of all of the identified SWMUs.

Response:

A Figure has been included in the Part B Permit Application that illustrates the locations of all of the identified SWMUs and AOCs.

19. Comment:

Section L., SWMU 1 and 2: the text should clarify where stormwater from the plant process area drains (see Comment No. 4).

Response:

Deleted text associated with SWMU 1 and 2. A comprehensive list is included in Section L listing all of the SWMUs and AOCs. A description of each SWMU and AOC is included in a July 2000 RFA report from EPA and a correction letter dated August 30, 2000 from Farmland which are included as Appendix A and B of section L, respectively. A description of each SWMU and AOC will also be included in the RFI Work Plan.

20. Comment:

Part B Permit Application Certification: a new certification must be submitted with any revisions to the application. The certification language must be in accordance with 270.11(d)(1). KDHE will not accept certification for the application if the language has been altered or additional statements attached to the certification.

Response:

Certified Application using certification language in accordance with 270.11(d)(1).

SAP Comments

21. Comment:

The phrase "appropriate wastewater system disposal points" is used several times in Sampling and Analysis Plan (SAP) document in reference to disposal of purge water or decontamination water. Include a description of where purge water and decontamination water will be disposed at the facility and identify these locations on map.

Response:

The phrase "appropriate wastewater system disposal points" has been deleted and the following text has been added: "Water purged from the wells will be collected and disposed in the Facility underground injection wells through the wastewater building pit, neutralization pit, or the onsite laboratory sink."

22. Comment:

Section 1.1, Page 2: The first paragraph states that sampling of private wells near the facility was initiated in 1973. This information contrasts with information contained in KDHE's files. Please submit all private well analytical data obtained from sampling events prior to 1982.

Response:

KNC will submit all analytical data from the private wells from 1973 to 1982 in a separate submission.

23. Comment:

Section 1.1, Page 2: Reference is made to 62 recovery wells compared to other numbers specified in other sections of the SAP or Part B application. The Permit specifies the recovery system consists of 68 wells. Consistently apply the accurate number of wells throughout the Part B application and the SAP document and include boring logs for recovery wells.

Response:

The current recovery system consists of 66 recovery wells. In the review process, KNC discovered that recovery well TW-50 has been plugged and abandoned in 2001 and KDHE was informed of this in the 2001 Annual Groundwater Monitoring Report. Plug and Abandonment forms were completed and filed with KDHE on December 22, 2001. Groundwater well TW-79 is currently classified as a recovery well; however, it has never been connected to the recovery well system. A dedicated submersible pump is located in TW-79; however, a generator must be connected to the pump to provide power for pumping. The well is currently sampled quarterly but is not associated with the recovery well system. As KDHE is aware the local landowner of the property occasionally uses a generator to pump water from this well for cattle watering purposes. We understand that this activity has been agreed to by KDHE. Based on these two well classifications, there are 66 current recovery wells connected to the remediation system.

24. Comment:

Section 2.1, Page 6: Discontinuation of private wells may be appropriate in the future, but will require a permit modification. Specify in this section that KNC will submit a request to modify the permit should KNC wish to change the list of wells.

Response:

The following text has been added: "KNC will submit a request to modify the permit should KNC wish to change the list of private wells."

25. Comment:

Section 3.0, Page 8: Although KDHE understands circumstances may arise which may delay the completion of a scheduled sample event, every effort must be made to complete

a sampling event within seven days instead of the two-week time period stated in the text. Rephrase the first sentence of the second paragraph to reflect this requirement.

Response:

The following text has been added: "Each quarterly sampling event from the monitoring well networks should be completed within a seven day time period; however, if due to unforeseeable circumstances which extend the sampling event, KNC will notify KDHE of the delay and make all reasonable efforts to complete the sampling event in a timely manner."

26. Comment:

Section 3.1.3.2, Item 4, Bullet 1, Page 11: Permit Condition IV.D.3.d. requires "Wells demonstrating screen occlusion equal to or in excess of 10% of the effective well screen length or 2.5 feet, which ever is less, shall be redeveloped prior to the next scheduled sampling event." The application language must be consistent with permit. The propose language has the potential for noncompliance with the Permit.

Response:

The following text has been added: "Wells demonstrating screen occlusion equal to or in excess of 10% of the effective well screen length or 2.5 feet, which ever is less, shall be redeveloped prior to the next scheduled sampling event."

27. Comment:

Section 3.1.3.2, Item 8, Page 13 and Section 3.1.3.4, Page 15: Dissolved oxygen was removed from the list of purge parameters. During low-flow sampling, this parameter provides important information to confirm the completion of well purging and is often the last parameter to stabilize. Dissolved oxygen must be included in the list of purge parameters. Koch may wish to evaluate the adequacy of the equipment if personnel has difficulty achieving stabilized dissolved oxygen readings in the field.

Response:

Dissolved oxygen has been added back to the list of parameters. The following language has been added. "The stabilization criterion for dissolved oxygen (DO) will be based on the amount of DO being recorded in the groundwater. DO values that are greater than 1 mg/l will have a stabilization criterion of +/- 10 percent for three consecutive readings, while DO values equal to or less than 1 mg/L will have a stabilization criterion of +/- 0.2 mg/L for three consecutive readings. In the event dissolved oxygen does not stabilize concurrently with temperature, pH and specific conductivity, an additional three successive readings at three minute intervals will be recorded. If DO has not stabilized according to the criterion established in the above paragraph and the remaining parameters remain stable, the well will be considered adequately purged and the water within the well bore representative of groundwater allowing sample collection to proceed."

28. Comment:

Section 3.1.4, Item 7, Page 16: Though Koch may sample a nearby well as a replacement for an inoperable well, KDHE will require the designated well be sampled within seven days of initiation of the sampling event. Remove the reference to well substitution.

Response:

The paragraph describing well substitution has been deleted from the text.

29. Comment:

Section 3.2, Page 17: The specified sampling schedule is not designed to be flexible. Remove the word "typical" in reference to the sampling calendar.

Response:

The word "typical" has been deleted from the text.

30. Comment:

Section 3.2.2, Page 18: Rephrase the last sentence of the second paragraph to state that KNC will submit a request to modify the permit should KNC wish to reduce sampling frequency on any monitoring well.

Response:

The last sentence in the second paragraph has been modified to read as "If, for three consecutive quarters, the individual well data is statistically less than the groundwater protection standards, then KNC will submit a request to modify the permit to reduce the sampling frequency on that well to annual sampling.

31. Comment:

Section 3.3.3, Page 21: The SAP is designed to specify groundwater sampling procedures. However, Section 3.3.3 includes guidelines for collection of soil samples. Remove reference to the collection of soil samples. Additionally, remove all references to the collection of "investigative" samples. The SAP is designed for monitoring and not for the purpose of investigation.

Response:

All references to both soil samples and "investigative" samples have been removed from the text.

II. EPA COMMENTS:

General Comment

1. Comment:

Appendices A, B, and C do not contain information, only a cover page is included. Further back in the Appendices there are other cover pages for the Appendices with information. Please organize the Appendices so that the appropriate information is in the correct Appendix and there are no duplicate Appendix cover pages.

Response:

The original Part B Permit Application submitted on December 31, 2003, contained only the sections that were modified. If the section was not modified from its original version then the section was not included in the December submission. However, for this Part B Permit Application submission, a Table of Contents has been included along with the appropriate sections. A sheet has been included in the sections where no modifications are requested stating no changes and referencing the September 7, 2001 application where the appropriate material is located.

Specific Comments

1. Comment:

Section B, B-1, Page B-1, 1st paragraph: The facility description should contain a complete description of the facility property including the 65 acres of land located across Highway 50 North of the Plant, especially since UIC well No. 3 is located on that parcel of land.

Response:

The facility description does contain a description of the property located north of the plant across Highway 50. The following text has also been added: "Underground Injection Control (UIC) well No. 3 is located on the northern property."

2. Comment:

Section B, B-1, Page B-3, 1st paragraph: "Since that date, the extent of chromium in the groundwater has been defined by the installation and monitoring of numerous monitoring and recovery wells on the Property." The zero-line for chromium contamination has not been established. All that is known at this time is there is offsite contamination, but the vertical and horizontal extent have not been defined. A thorough investigation needs to be conducted to fill in the data gaps. Additionally, a description of the groundwater monitoring, and recovery system should be included. Please revise.

Response:

The text has been revised as following: "Since that date, numerous groundwater monitoring and recovery wells have been installed on the Property in an effort to contain and define the extent of the chromium contamination." In addition a description of the recovery system has been included in the text.

3. Comment:

Section B, B-1, Page B-3, 1st paragraph: Well locations are shown on the topographic map in Section C." In Section C, 1st paragraph, it states, "A topographic map of the Plant and required area outside the Plant has been prepared. This Map is located at the end of this section and shows all information required by 40 CFR 270.14(b)(19)." The topographic map is missing. Please include the map.

Response:

See response to "Comment No. 1 under General Comment". The topographic map was not included in the Part B Application submitted on December 31, 2003 since it was not modified from the original Part B Application submitted on September 7, 2001. However, KNC has included the topographic map as requested in this Part B Application submittal.

4. Comment:

Section B, Page B-3, 1st full paragraph: "Trivalent chromium is precipitated out in the settling basin and managed as non-hazardous solid waste." Has the sludge in the settling basin been tested to determine if it is indeed non-hazardous? If testing has been done, attach the results to the permit application.

Response:

The following text has been added: "In the event the precipitated sludge will need to be removed from the settling basin, the solid waste will be properly characterized and managed appropriately." The wording "managed as non-hazardous solid waste" has been deleted from the text.

5. Comment:

Section B, Page B-3, 2nd full paragraph: A portion of the recovered groundwater is pumped directly to the wastewater disposal system for disposal in the two existing Class I non-hazardous waste injection wells. What happens to the other portion of the recovered groundwater? Where does it go?

Response:

As stated in the 1st full paragraph of Section B, Page B-3, the groundwater is treated and reused in the industrial processes. Hexavalent chromium is first converted to trivalent chromium where the chromium is then precipitated out in the settling basin and then the water is used for various applications in the operational processes (i.e. cooling tower make-up water, steam generation, etc.). The text has also been modified to read "A portion of the recovered groundwater that is not used in the industrial process, is pumped directly to the wastewater disposal system for disposal in the two existing Class I non-hazardous waste injection wells."

6. Comment:

Section E, E-1, Page E-1, 2nd paragraph: "Since that time, the wells listed in the table in Section E – Appendix A have been installed to monitor the extent of chromium in the groundwater and provide for recovery of groundwater at the property." There is no table in Section E of Appendix A. Please include the information.

Response:

See response to EPA's General Comment #1. However a table has been included in Appendix A for this revision to the RCRA Part B Permit Application.

7. Comment:

Section E, E-2, Page E-1, last paragraph: "A summary of the wells drilled to date and boring logs of the monitoring wells is included in Appendix A of this section. There is no Appendix A. Please correct in include Appendix A.

Response:

See response to EPA's General Comment #1.

8. Comment:

Section E, E-2, Page E-2, 1st paragraph: "Wells with dedicated pumps are listed in Appendix A of this section. They are currently pumped either to the wastewater system for disposal in Injection Wells No. 2 or No. 3 or to the chromium treatment system for treatment and reuse. Field inspection forms used for well inspections, water level measurements and sampling are included in Appendix B." There is no information contained in Appendices A or B. Please correct.

Response:

See response to EPA's General Comment #1. Appendices A and B have been included in this revision to the RCRA Part B Permit Application.

9. Comment:

Section E, Page E-2, last paragraph of section E-2: "Sampling and analysis will continue until the compliance wells have been shown to be at or below the groundwater protection standard for constituents of concern and final closure of the CDU and other SWMUs at the Plant is obtained from KDHE." The groundwater protection standard has to be met for three (3) consecutive years before sampling and analysis can be discontinued. Also, the "other SWMUs" are under EPA's authority and will be regulated through EPA.

Response:

The following text has been modified and or added: "Sampling and analysis will continue until the compliance wells have been shown to be at or below the groundwater protection standard for constituents of concern. Groundwater monitoring will continue until the groundwater protection standard has not been exceeded at the point of compliance for three consecutive years."

10. Comment:

Section E, E-2, Page E-4, 2nd paragraph of the Strikeout version: This paragraph describes the groundwater monitoring and recovery system. It has been struck out and not included in the revised version of the Part B Application. This information needs to be included in the Part B Application. Please correct this.

Response:

This paragraph has been added back in the RCRA Part B Application in Section B-1.

11. Comment:

Section F, F-1, Page F-1, 2nd paragraph: "This Post-Closure Plan has been designed to assure impacts to human health or the environment are minimized..." The sentence should state "This Post-Closure Plan has been designed to assure impacts to human health and the environment..." not or.

Response:

This was a typographical error where "or" was inadvertently used instead of "and". The text has been changed to state "human health and the environment".

12. Comment:

Section F, F-10, Page F-4, 1st paragraph: "The trivalent chromium is precipitated out in the settling basin and managed as a non-hazardous solid waste." Same comment as Number 4 above.

Response:

See response to EPA's Specific Comment #4.

13. Comment:

Section F, F-10, Pages F-5 & F-6, Durco Filter & Final (Cartridge) Filters: What is done with the dirty filters? How are they disposed? Are they tested to determine if they are a hazardous waste? If not, why not?

Response:

The Durco filters consists of a metal mesh screen that occasionally need washing with a high power washer but unless they damaged, they are placed back into service. The final (cartridge) filters are routinely replaced. These filters will be sampled and characterized for disposal. Based on the analytical results, the cartridge filters will be disposed in an environmental sound manner.

14. Comment:

Section J, J-2, Page J-1: "Historical data suggests the area of impact by constituent of concern is limited to the immediately Property area: however, the extent of nitrate in groundwater has not been fully assessed." We have documentation information that chromium is offsite, so this is contrary to the above statement. The chromium plume of contamination has not been fully defined either.

Response:

This statement has been deleted from the text.

15. Comment:

Section L, Page L-1: This section only lists eight (8) solid waste management units (SWMUs). Part II of the permit lists 26 SWMUs and 6 areas of concern (AOCs). Please revise this section to include a comprehensive list of all SWMUs and all AOCs.

Response:

A comprehensive list has been added to the text referencing all SWMUs and AOCs. In addition two appendices have been added which include EPA's July 2000 RCRA Facility Assessment Report (RFA) and the correction letter on the RFA report from Farmland dated August 30, 2000.