Nebraska Air Quality Construction Permit Application

APPLICATION COVER SHEET AND CHECKLIST

Department Of Environmental Quality
Air Quality Division – Construction Permit Unit
P.O. Box 98922, Lincoln, NE 68509-8922
877-834-0474 or 402-471-2189
http://www.deq.state.ne.us

Facility Name: **Nebraska City Station** Date: **11/28/2007**

Facility ID# (if known): **58343**

IMPORTANT: PLEASE READ THE GENERAL INSTRUCTIONS AT THE END OF THIS COVER SHEET

All applications must also include this completed cover sheet and completeness checklist. Please indicate below which application forms/sections are being included with this Construction Permit Application packet.

- ☒ FORM 1.0 – Application General Information
  - ☒ SECTION 1.1 – General Information (REQUIRED, unless only SECTION 1.4 is submitted)
  - ☒ SECTION 1.2 – Prevention of Significant Deterioration Information
  - ☐ SECTION 1.3 – State BACT & Federal MACT Applicability Determination
  - ☐ SECTION 1.4 – MACT Initial Notification
- ☐ FORM 2.0 – Emissions Summary ***(See August 2007 permit application forms)***
  - ☐ SECTION 2.1 – Emission Point Summary
  - ☐ SECTION 2.2 – Pollutant Emissions Summary (lb/hr)
  - ☐ SECTION 2.3 – Criteria Pollutant Emissions Summary (tons/yr)
  - ☐ SECTION 2.4 – Hazardous Air Pollutant Emissions Summary (tons/yr)
- ☒ FORM 3.0 – Air Dispersion Modeling Information
  - ☒ SECTION 3.1.x – Point/Area/Volume Source Information, Potential Emissions
  - ☒ SECTION 3.2.x – Point/Area/Volume Source Information, Actual Emissions
- ☐ FORM 4.0 – External Combustion Units ***(See August 2007 permit application forms)***
- ☐ FORM 5.0 – Internal Combustion Units
- ☐ FORM 6.0 – Incineration Units
- ☐ FORM 7.0 – Material Handling
  - ☐ SECTION 7.1 – Material Handling Emission Point Information
  - ☐ SECTION 7.2.x – Grain Handling Facility Information
- ☐ FORM 8.0 – Coating Operations
- ☐ FORM 9.0 – Storage Tanks
- ☐ FORM 10.0 – Cooling Towers
- ☐ FORM 11.0 – Fugitive Emission Sources
  - ☐ SECTION 11.1 – Haul Roads
  - ☐ SECTION 11.2 – Equipment Leaks
  - ☐ SECTION 11.3 – Storage Pile Information
- ☐ FORM 12.0 – Control Equipment Emissions
  - ☐ SECTION 12.1 – Combustion Flare
  - ☐ SECTION 12.2.x – Thermal Oxidizer Information
  - ☐ SECTION 12.3 – Control Equipment Information (no combustion)
- ☐ FORM 13.0 – Ethanol Production Facility

Nebraska Air Quality Construction Permit Application

APPLICATION COVER SHEET AND CHECKLIST

Application Completeness Checklist (must be completed for all applications):

☒ The application does not include any confidential information and no application materials are marked confidential. (Pay particular attention to drawings, figures, diagrams, and specification sheets from manufacturers, as these are the most often overlooked materials that have "confidential" stamped on them.)

☐ The application does include confidential information and the appropriate request for confidentiality in accordance with Title 115 – Rules of Practice and Procedure is provided. Refer to the NDEQ Guidance Document titled "Air Quality Confidentiality Claims" available on our website for more information.

☒ The application is typed or filled out using a black or blue pen.

☒ The original application is signed and dated by the responsible official. (Section 1.1)

☒ The relevant sections have been duly marked on the front page of this form and filled out completely to the best of my ability (If you are unsure as to which sections pertain to your facility, please contact the NDEQ).

☒ Instructions for each section have been read thoroughly (If you are unsure as to what information is needed, please contact the NDEQ).

☒ Emissions calculations – calculations of potential emissions (controlled and uncontrolled) of all regulated air pollutants have been provided, with all supporting documentation included and units clearly defined. Include emission factors and source (i.e. AP-42, FIRE, etc).

☒ Application Fee of the proper amount is enclosed. (Section 1.1)

☒ Air pollution control equipment for each emission point is identified and described. (Section 2.1)

☒ Emission point/stack data is identified and described.

☐ Plant Diagram shows heights and locations of all buildings, property boundaries and location of all stacks and emission points.

☒ Detailed Project Summary clearly outlines the intent and processes at the facility. (Section 1.1)

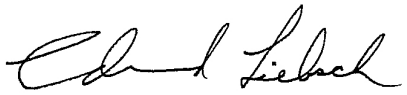
☒ Ambient Air Quality Analysis is provided, including the modeling data and results, where required (see Modeling Guidance or contact NDEQ). If an analysis is not provided, include an explanation for why it wasn't.

☒ Application is for a Prevention of Significant Deterioration (PSD) permit.

☒ One (1) original and two (2) copies (3 copies for PSD applications) of the complete application have been sent to the proper address. If an electronic version of the application is submitted, only one original and one copy are required regardless of application type.

☐ Additional information not identified on application forms is included and clearly identified.

I have completed this application cover sheet and completeness checklist and can attest that the accompanying construction permit application materials are complete to the best of my ability. In completing this form, I understand the following: That if any of the required information is not included in this application submittal, the application will be placed in a suspended file until the Department receives the necessary materials and information; That my completion of this Cover Sheet and Checklist does not assure this is a complete application and the Department may request additional information to complete the permit; That by checking the box indicating this application does not include confidential information, the application will be placed in the public files and be subject to public review; and, That the application review will not commence until all required information is received and the application is determined to be complete.

Edward Liebsch /  11/28/2007

Name / Signature of Application Preparer **Date**

Department Of Environmental Quality
Air Quality Division – Construction Permit Unit
P.O. Box 98922, Lincoln, NE 68509-8922
877-834-0474 or 402-471-2189
http://www.deq.state.ne.us

NDEQ USE ONLY
Amount Paid:
Check #:
Receipt #:
Application #:

Nebraska Air Quality Construction Permit Application
Form 1.0: Application General Information
Section 1.1: Air Quality Construction Permit General Information

IMPORTANT: READ THE INSTRUCTIONS ACCOMPANYING THIS SECTION
Do **NOT** use pencil to fill out this application. Please type responses or use black ink.

Administrative Information

1) Facility Name: **Nebraska City Station**			2) NDEQ Facility ID#: 58343	
3) Facility SIC Code(s): 4911			4) Facility Description: Coal-fired power plant	
5) Facility Physical Address: **264 L Road**				
6) Facility City: **Nebraska City**			7) State: **Nebraska**	8) Zip: **68410-**
9) County: **Otoe**	¼	¼	Section:	Township: / Range:

10) Is the source located within 50 Miles of an adjacent State: ☒ Yes ☐ No If Yes, indicate which state(s) below:
☐ Colorado ☒ Iowa ☒ Kansas ☒ Missouri ☐ South Dakota ☐ Wyoming

11) Company Name: **Omaha Public Power District**		
12) Company Mailing Address: **444 South 16th Street Mall**		
13) Company City: **Omaha**	14) State: NE	15) Zip: **68102-**
16) Is The Business Incorporated? ☐ Yes ☒ No	17) State of Incorporation: **NA**	

Contact Information

18) Facility Contact Person: **Willian L. Neal**	
19) Facility Contact Person's Title or Responsibility: **Division Manager - Environmental Affairs**	
20) Phone Number: 402 636-2302 21) Alt. Phone Number:	22) Fax Number: 402 636-3972 23) Email Address: wneal@oppd.com

24) Who is the Primary Contact for Application-related Questions?: ☒ Facility Contact ☐ Other (fill in 25-30 below)

25) Primary Contact Name:	
26) Primary Contact Company:	
27) Phone Number: 28) Alt. Phone Number:	29) Fax Number: 30) Email Address:

31) Hard-copy drafts and the final permit documents should be sent to: ☒ Facility Contact ☐ Other (fill in 32-37 below)

32) Document Recipient's Name:		
33) Document Recipient's Title or Responsibility:		
34) Document Recipient's Mailing Address:		
35) Document Recipient's City:	36) State:	37) Zip:

Construction Permit Fee Information

38) Construction Permit Application Fee Enclosed (see instructions): ☐ $3,000 ☐ $1,500 ☐ $250 ☐ N/A

Make check payable to: **Nebraska Department of Environmental Quality**
Memo: Air Quality CP Application Fee ***(Note: $3,000 application fee submitted previously)***

Air Quality Construction Permit Application
Form 1.0: Application General Information

FACILITY NAME: Nebraska City Station **DATE:** 11/28/2007

NDEQ Facility ID#: 58343

Section 1.1: Air Quality Construction Permit General Information

Project Information

39) This Application is For: (Check One)
- a. ☐ Initial Construction Permit for a New Facility
- b. ☒ Modification of an Existing Facility
- c. ☐ Significant Revision of an Existing Construction Permit(s) issued: _____
- d. ☐ Historical Construction/Modification

40) Projected Date to Begin Actual Construction: **to be determined**

41) Projected Date of Startup: **to be determined**

42) Estimated Cost of Project: to be determined

Historical Permitting Information ☐ N/A

43) What year was the facility originally constructed? 1975

44) Enter the date the most recent Air Quality Construction Permit was issued (mm/dd/yyyy): 03/09/2005

45) Provide a brief summary of each modification below (Attach additional sheets if needed):

Date of Modification	Date Permitted	Summary of Modification
On going	**March 9, 2005**	**Nebraska City 2 Addition**

Source Information

46) Is the existing source classified as a Major Prevention of Significant Deterioration (PSD) Source? ☒ Yes ☐ No ☐ N/A

47) Is this project subject to PSD Review? ☒ Yes ☐ No If Yes, complete Section 1.2.

48) Is the Source subject to State toxic BACT Requirements? ☐ Yes ☒ No If Yes or unknown, complete Section 1.3.

49) Is the Source subject to NESHAP or MACT Requirements? ☐ Yes ☒ No If Yes or unknown, complete Section 1.3.

50) Is this Air Quality Construction Permit Application also fulfilling the notification requirements for an applicable NESHAP/MACT standard? ☐ Yes ☒ No If Yes, complete Section 1.4.

51) Responsible Official Certification Statement

I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this Air Quality Construction Permit application are true, accurate, and complete. I also certify that all copies, including the electronic copy, of this application are identical in content to the original.

Signature (See Instructions for Signatory Requirements) Date (mm/dd/yyyy):

Typed or Printed Name: **Dale F. Widoe** Title: **Vice President**

Air Quality Construction Permit Application
Form 1.0: Application General Information

FACILITY NAME: Nebraska City Station **DATE:** August 3, 2007

NDEQ Facility ID#: 58343

Section 1.1: Air Quality Construction Permit General Information

52) Project Description

For New Facilities: On a separate sheet(s) of paper, provide a detailed narrative of the proposed construction at the facility. This should include all emission units, processes, and pollution control equipment being constructed. The descriptions must be complete and particular attention must be given in explaining all stages in the process that may result in a discharge of any air pollutant. All obtainable data must be supplied concerning the nature, volume, particle size, weights, chemical composition and concentrations of all types of air pollutants that are expected to be emitted by the source. All emission point, emission unit, and control equipment identification numbers should be present in this description appropriately.

For Existing Facilities: On a separate sheet(s) of paper, provide a detailed narrative of the production, operations, processes, and emission units that currently exist at the facility. This should include all emission units, processes, and pollution control equipment that are currently in operation. The descriptions must be complete and particular attention must be given in explaining all stages in the process where there is a discharge of any air pollutant. All obtainable data must be supplied concerning the nature, volume, particle size, weights, chemical composition and concentrations of all types of air pollutants that are emitted by the source. In addition to existing information, narrative of the proposed construction/modification occurring at the source must also be discussed with emphasis on the additions/changes occurring. The same information presented for the existing sources should also be provided for the new construction/modification. Ensure that the narrative is clear as to what is new, existing, and/or being modified. All emission point, emission unit, and control equipment identification numbers should be present in this description appropriately.

53) Facility Layout Diagram *(on-file with NDEQ – see NC2 PSD permit appl.)*

On a separate sheet(s) of paper, provide a detailed diagram or site drawing that includes all new and existing buildings, stacks, and emission points identified in this application. Make sure all elements of the drawing are properly identified, drawn to scale, and are consistent with other sections of this application. The plant diagram should indicate the height and location of all buildings/structures and property boundaries. Fences or other public access restrictions should be identified and described. Clearly indicate which elements currently exist and which will be built/installed/modified. (See Sample Plant Layout Diagram for an example)

54) Process Flow Diagram

On a separate sheet(s) of paper, provide a flow chart that includes all processes, process equipment, stacks, air pollution control equipment, and fuel burning equipment identified in this application. When finished, this diagram should show how products and materials (including fuel) flow through each process. Make sure all units are identified and properly cross-referenced to match other Sections of the application (including existing units). Provide an inclusive date from which the diagram is valid. Clearly indicate which elements exist and which are new. (See Sample Process Flow Diagram for an example of this document)

55) Air Dispersion Modeling Information

Modeling Guidance for determining whether air dispersion modeling may be required can be found on the NDEQ website, or contact the Department for assistance.

Has an air dispersion modeling protocol been established for this source and reviewed by NDEQ? ☐ Yes ☒ No

Air dispersion modeling and modeling checklist submitted with application? ☐ Yes ☒ No

Note: If air dispersion modeling is required but not included with this application, please provide complete modeling submittal and modeling checklist within 30 days to avoid delays in processing this permit application. A delay in submitting the modeling can result in the application being placed on hold and the Department cannot guarantee work will resume immediately upon receipt of modeling. One original and two copies of the modeling submittal are required.

Air Quality Construction Permit Application
Form 1.0: Application General Information

FACILITY NAME: Nebraska City Station **DATE:** November 2007

NDEQ Facility ID#: 58343

Section 1.2: Prevention of Significant Deterioration Information

IMPORTANT: READ THE INSTRUCTIONS ACCOMPANYING THIS SECTION BEFORE COMPLETING.
Do **NOT** use pencil to fill out this application. Please type responses or print using black ink.

Unit Information

List the Relevant Emissions Units whose Emissions will be affected by the Proposed Project:

Unit ID#	Unit Description	Unit Status
1	**Unit 1 Boiler**	☐ New ☒ Existing: _____
		☐ New ☐ Existing: _____
		☐ New ☐ Existing: _____
		☐ New ☐ Existing: _____
		☐ New ☐ Existing: _____
		☐ New ☐ Existing: _____
		☐ New ☐ Existing: _____
		☐ New ☐ Existing: _____
		☐ New ☐ Existing: _____
		☐ New ☐ Existing: _____

Note: See Instructions for Definitions of New and Existing Units

Federally Regulated PSD Pollutants

Select the PSD Regulated Pollutant Emissions that are expected to be affected by the Proposed Project:

☐ Particulate Matter, PM	☐ Sulfuric Acid Mist, H_2SO_4
☐ PM with aerodynamic diameter equal to or less than 10 micrometers, PM_{10}	☐ Municipal Solid Waste Landfill Emissions, NMOC
☒ Nitrogen dioxide, NO_2	☐ Total Reduced Sulfur Compounds, TRS
☐ Sulfur dioxide, SO_2	☐ Hydrogen Sulfide, H_2S
☒ Carbon dioxide, CO	☐ Municipal Waste Combustor (MWC) Acid Gases
☐ Volatile Organic Compounds, VOC	☐ MWC Metals
☐ Elemental Lead, Pb	☐ MWC Organics
☐ Fluorides, Fl	☐ Ozone Depleting Substances, ODS
☐ Other: _____	

Air Quality Construction Permit Application
Form 1.0: Application General Information

FACILITY NAME: Nebraska City Station **DATE:** November 2007

NDEQ Facility ID#: 58343

Section 1.2: Prevention of Significant Deterioration Information

Determine Project Emissions Increase			
Regulated Pollutant being Analyzed: Carbon Monoxide (CO)			
BAE Time Period Selected: No analysis conducted – assumed major emissions increase for CO			
Unit ID#	(A) BAE (ton/yr)	(B) ☒ PTE or ☐ PAE (ton/yr)	(B) – (A) (ton/yr)
1	☐ Adjusted	14967	
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
		Total Project Emissions (ton/yr)	16508 (conservative)
		Regulated Pollutant PSD Threshold (ton/yr)	100
Note: If a BAE was adjusted or PAE used, attach an additional page explaining the adjustment(s) and/or assumptions that were made.			

Determine Project Emissions Increase			
Regulated Pollutant being Analyzed: Nitrogen Oxides (NOx)			
BAE Time Period Selected: Not Applicable - Project will result in net decrease in NOx			
Unit ID#	(A) BAE (ton/yr)	(B) ☐ PTE or ☐ PAE (ton/yr)	(B) – (A) (ton/yr)
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
		Total Project Emissions (ton/yr)	
		Regulated Pollutant PSD Threshold (ton/yr)	

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Note: If a BAE was adjusted, attach an additional page explaining the adjustment(s) that was made.

FACILITY NAME: Nebraska City Station **DATE:** November 2007

NDEQ Facility ID#: 58343

Section 1.2: Prevention of Significant Deterioration Information

Determine Net Emissions Increase			
Regulated Pollutant being Analyzed:			
Projected date Construction will Commence:			
Projected date Operation will Commence:			

Unit ID#	Date of Emissions Increase or Decrease	BAE Time Period Selected

Unit ID#	(A) BAE (ton/yr)	(B) ☐ PTE or ☐ PAE (ton/yr)	(B) – (A) (ton/yr)
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
	☐ Adjusted		
		Total NET Emissions (ton/yr)	
		Regulated Pollutant PSD Threshold (ton/yr)	

Note: If a BAE was adjusted, attach an additional page explaining the adjustment(s) that was made.

Have all the decreases in emissions that were accounted for in the above netting calculation been previously made federally enforceable? ☐ YES ☐ NO

Have any of the emissions accounted for in the above netting calculation previously been permitted through another PSD permitting process? ☐ YES ☐ NO

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If Demand Growth Exclusion was used to net out of PSD for the project, all demand growth exclusion documentation must be submitted to the Department with this PSD Notification. ☐ Demand Growth Exclusion Information Attached.

FACILITY NAME: Nebraska City Station	**DATE:** November 2007
NDEQ Facility ID#: 58343	

Section 1.2: Prevention of Significant Deterioration Information

Answer the following questions if the Source is Subject to the PSD Program.

Plant-wide Applicability Limits

1) Are you interested in obtaining a Plant-wide Applicability Limit, also known as a PAL? ☐ YES ☒ NO

If YES, contact the Department in order to discuss the necessary information needed to establish the PAL(s).

Best Available Control Technology

2) Select the NSR regulated pollutants for which the potential to emit (PTE) of the entire source (if a new major source) or the modification is significant (significance threshold is in parenthesis).

- ☐ Particulate Matter, PM (25 tpy)
- ☐ PM with aerodynamic diameter equal to or less than 10 micrometers, PM_{10} (15 tpy)
- ☐ Nitrogen dioxide, NO_2 (40 tpy)
- ☐ Sulfur dioxide, SO_2 (40 tpy)
- ☒ Carbon monoxide, CO (100 tpy)
- ☐ Volatile Organic Compounds, VOC (40 tpy)
- ☐ Elemental Lead, Pb (0.6 tpy)
- ☐ Fluorides (3 tpy)
- ☐ Other: _____
- ☐ Sulfuric Acid Mist, H_2SO_4 (7 tpy)
- ☐ Municipal Solid Waste Landfill Emissions, Non-Methane Organic Compounds (50 tpy)
- ☐ Total Reduced Sulfur Compounds, TRS (10 tpy)
- ☐ Hydrogen Sulfide, H_2S (10 tpy)
- ☐ Municipal Waste Combustor Acid Gases (40 tpy)
- ☐ MWC Metals (15 tpy)
- ☐ MWC Organics (3.5×10^{-6} tpy)
- ☐ Ozone Depleting Substances, ODS (Any increase)

Note: If this is a new major source, the threshold for significance is 250 tons/year for each pollutant, unless the source is classified as one of the sources listed in Title 129, Chapter 2, Section 002, then the significance threshold is 100 tons/year for each pollutant including fugitive emissions.

For each of the pollutants selected above, a BACT analysis must be conducted for each emission unit that is emitting each pollutant (for new sources) or for each unit at which a net emissions in increase of that pollutant would occur as a result of a physical change or change in method of operation in the unit (for modifications). A BACT analysis must be submitted to the Department as an attachment to this permit application. Contact the Department if help is needed determining the information that should be submitted for the BACT analysis.

☒ Best Available Control Technology Analysis and Determination for each pollutant selected above is attached.

OPPD requests an identical CO permit limit and permit conditions as in the PSD permit for the GGS Unit 1 boiler Low-NOx burner retrofit, issued by NDEQ in late 2006. Attached is a copy of the Permit for that permitting action. Because NC1 is nearly identical in size and uses the same fuel as GGS1, the BACT analysis for GGS1 is directly applicable to NC1, and has been supplemented based on more recent information.

Ambient Air Impact Analysis

Please consult the "*Atmospheric Dispersion Modeling Guidance for Permits*" guidance document for information on PSD modeling. This document can be found on the Department's website (www.deq.state.ne.us). The guidance document also contains information on the proper procedure for conducting and submitting modeling to the Department. Contact the Department if there are any questions on whether or not modeling is required.

Form 3.0, Sections 3.1 and 3.2 must be completed as appropriate.

Air Quality Construction Permit Application
Form 3.0: Air Dispersion Modeling Information

FACILITY NAME: Nebraska City Station **DATE:** 11/28/2007

NDEQ Facility ID#: 58343

Please check ☐ if a separate modeling information document is used as a replacement for this Form. Identify separate document with the title of this Form and attach. This separate document should include all information from Sections 3.1.1, 3.1.2, & 3.1.3.

Section 3.1.1: Air Dispersion Modeling Point Source Information – Potential Emissions

IMPORTANT: READ THE INSTRUCTIONS ACCOMPANYING THIS SECTION BEFORE COMPLETING
Do **NOT** use pencil to fill out this application. Please type responses or print using black ink.

Point Source General Information

Emission Point ID#	Emission Point Description	UTM X (m)	UTM Y (m)	Ground Elevation (m)	Stack height (ft)	Temperature (K)	Exit Velocity (m/s)	Diameter (ft)	Flow Rate (m^3 / s)
1	Unit 1 main stack	265402.1	4500198.2	281.94	667.5*	415	30.0	23.6	1219.2
					*GEP height				

Point Source Emission Information

Emission Point ID#	Emission Point Description	PM_{10} (lb/hr)	NO_x (lb/hr)	SO_2 (lb/hr)	CO (lb/hr)
1	Unit 1 main stack	not modeled	not modeled	not modeled	3417

Air Quality Construction Permit Application
Form 3.0: Air Dispersion Modeling Information

FACILITY NAME: Nebraska City Station **DATE:** 11/28/2007

NDEQ Facility ID#: 58343

Section 3.1.2: Air Dispersion Modeling Area Source Information – Potential Emissions

IMPORTANT: READ THE INSTRUCTIONS ACCOMPANYING THIS SECTION BEFORE COMPLETING
Do **NOT** use pencil to fill out this application. Please type responses or print using black ink.

Area Source General Information

Emission Point ID#	Emission Point Description	UTM X (m)	UTM Y (m)	Ground Elevation (m)	X-Length (m)	Y-Length (m)	Release Height (m)	Angle (degrees)	Initial Vertical Dimension (m)

Area Source Emission Information

Emission Point ID#	Emission Point Description	PM_{10} (lb/hr-ft^2)	NO_x (lb/hr-ft^2)	SO_2 (lb/hr-ft^2)	CO (lb/hr-ft^2)

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Air Quality Construction Permit Application
Form 3.0: Air Dispersion Modeling Information

FACILITY NAME: Nebraska City Station **DATE:** 11/28/2007

NDEQ Facility ID#: 58343

Section 3.1.3: Air Dispersion Modeling Volume Source Information – Potential Emissions

IMPORTANT: READ THE INSTRUCTIONS ACCOMPANYING THIS SECTION BEFORE COMPLETING
Do **NOT** use pencil to fill out this application. Please type responses or print using black ink.

Volume Source General Information

Emission Point ID#	Emission Point Description	UTM X (m)	UTM Y (m)	Ground Elevation (m)	Horizontal Dimension (m)	Vertical Dimension (m)	Release Height (m)

Volume Source Emission Information

Emission Point ID#	Emission Point Description	PM_{10} (lb/hr)	NO_x (lb/hr)	SO_2 (lb/hr)	CO (lb/hr)

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Air Quality Construction Permit Application
Form 3.0: Air Dispersion Modeling Information

FACILITY NAME: Nebraska City Station **DATE:** 11/28/2007

NDEQ Facility ID#: 58343

Please check ☐ if a separate modeling information document is used as a replacement for this Form. Identify separate document with the title of this Form and attach. This separate document should include all information from Sections 3.1.1, 3.1.2, & 3.1.3.

Section 3.2.1: Air Dispersion Modeling Point Source Information – Actual Emissions

IMPORTANT: READ THE INSTRUCTIONS ACCOMPANYING THIS SECTION BEFORE COMPLETING
Do **NOT** use pencil to fill out this application. Please type responses or print using black ink.

Point Source General Information

Emission Point ID#	Emission Point Description	UTM X (m)	UTM Y (m)	Ground Elevation (m)	Stack height (ft)	Temperature (K)	Exit Velocity (m/s)	Diameter (ft)	Flow Rate (m^3 / s)
1	Unit 1 main stack	265402.1	4500198.2	281.94	667.5*	415	30.0	23.6	1219.2
					*GEP height				

Point Source Emission Information

Emission Point ID#	Emission Point Description	PM_{10} (lb/hr)	NO_x (lb/hr)	SO_2 (lb/hr)	CO (lb/hr)
1	Unit 1 main stack	not modeled	not modeled	not modeled	unknown

Air Quality Construction Permit Application
Form 3.0: Air Dispersion Modeling Information

FACILITY NAME: Nebraska City Station **DATE:** 11/28/2007

NDEQ Facility ID#: 58343

Section 3.2.2: Air Dispersion Modeling Area Source Information – Potential Emissions

IMPORTANT: READ THE INSTRUCTIONS ACCOMPANYING THIS SECTION BEFORE COMPLETING
Do **NOT** use pencil to fill out this application. Please type responses or print using black ink.

Area Source General Information

Emission Point ID#	Emission Point Description	UTM X (m)	UTM Y (m)	Ground Elevation (m)	X-Length (m)	Y-Length (m)	Release Height (m)	Angle (degrees)	Initial Vertical Dimension (m)

Area Source Emission Information

Emission Point ID#	Emission Point Description	PM_{10} (lb/hr-ft^2)	NO_x (lb/hr-ft^2)	SO_2 (lb/hr-ft^2)	CO (lb/hr-ft^2)

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Air Quality Construction Permit Application
Form 3.0: Air Dispersion Modeling Information

FACILITY NAME: Nebraska City Station **DATE:** 11/28/2007

NDEQ Facility ID#: 58343

Section 3.2.3: Air Dispersion Modeling Volume Source Information – Potential Emissions

IMPORTANT: READ THE INSTRUCTIONS ACCOMPANYING THIS SECTION BEFORE COMPLETING
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Volume Source General Information

Emission Point ID#	Emission Point Description	UTM X (m)	UTM Y (m)	Ground Elevation (m)	Horizontal Dimension (m)	Vertical Dimension (m)	Release Height (m)

Volume Source Emission Information

Emission Point ID#	Emission Point Description	PM_{10} (lb/hr)	NO_x (lb/hr)	SO_2 (lb/hr)	CO (lb/hr)

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