Air Quality Construction Permit Application
Form 4.0: Applicable Requirements

FACILITY NAME: ____ **DATE:** ____________________

NDEE Facility ID#: _________________________

Section 4.3: Prevention of Significant Deterioration (PSD) Information

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

Please check ☐ if a separate document is used as a replacement for this Section. Identify separate summary document with the title of this Section and attach to this form. Be sure to include all requested information.

1) Is this source included as one of the listed 28 source categories? ☐ Yes ☐ No

2) Change in Potential to Emit

PSD Regulated Pollutants*	Pre-Project PTE (ton/year)	Post-Project PTE (ton/year)
Particulate Matter, PM		
PM equal to or less than 10 micrometers, PM_{10}		
PM equal to or less than 2.5 micrometers, $PM_{2.5}$		
Sulfur dioxide, SO_2		
Nitrogen dioxide, NO_2		
Carbon dioxide, CO		
Volatile Organic Compounds, VOC		
Elemental Lead, Pb		
Fluorides, Fl		
Sulfuric Acid Mist, H_2SO_4		
Total Reduced Sulfur Compounds, TRS		
Hydrogen Sulfide, H_2S		
Greenhouse Gases (GHG's)		
Other: _____		

*See instructions for additional pollutants regulated under the PSD program.

3) Unit Information

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

Unit ID#	Unit Description	Unit Status (date began operation)	Affected How:
		☐ New ☐ Existing: _____	☐ Utilization ☐ Physical Mod.
		☐ New ☐ Existing: _____	☐ Utilization ☐ Physical Mod.
		☐ New ☐ Existing: _____	☐ Utilization ☐ Physical Mod.
		☐ New ☐ Existing: _____	☐ Utilization ☐ Physical Mod.
		☐ New ☐ Existing: _____	☐ Utilization ☐ Physical Mod.
		☐ New ☐ Existing: _____	☐ Utilization ☐ Physical Mod.
		☐ New ☐ Existing: _____	☐ Utilization ☐ Physical Mod.
		☐ New ☐ Existing: _____	☐ Utilization ☐ Physical Mod.
		☐ New ☐ Existing: _____	☐ Utilization ☐ Physical Mod.

Note: See Instructions for Definitions of New and Existing Units

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Section 4.3: PSD Information (continued)

4) Determine Project Emissions Increase

Regulated Pollutant being Analyzed:

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 Project Emissions (ton/yr)	
		Regulated Pollutant PSD Threshold (ton/yr)	

Note: If a BAE was adjusted or PAE used, attach an additional page explaining the adjustment(s) and/or assumptions that were made.

4) Determine Project Emissions Increase

Regulated Pollutant being Analyzed:

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 Project 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.

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FACILITY NAME:____ **DATE:**____________________

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Section 4.3: PSD Information (continued)

5) 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.			

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

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

8) 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.

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FACILITY NAME: ______________________________ **DATE:** ______________

NDEQ Facility ID#: ________________

Section 4.3: PSD Information (continued)

Plant-wide Applicability Limits

9) 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 (BACT) - Chapter 4, Section 001

Title 129, Chapter 4, Section 001 requires a new major stationary source or a major modification to apply BACT for each regulated new source review (NSR) pollutant for which there would be a significant net emissions increase at the source. BACT must be applied to each emissions unit that undergoes a physical change or change in method of operation that emits the pollutant for which there is a significant net emissions increase at the source.

10) Select each regulated NSR pollutant for which there will be a significant net emissions increase at the source as a result of the project (significance thresholds for each listed pollutant are in parenthesis).

☐ Particulate Matter, PM (25 tpy)
☐ PM with aerodynamic diameter equal to or less than 10 micrometers, PM_{10} (15 tpy)
☐ PM with aerodynamic diameter equal to or less than 2.5 micrometers, $PM_{2.5}$ (10 tpy)
☐ Nitrogen dioxide, NO_2 (40 tpy)
☐ Sulfur dioxide, SO_2 (40 tpy)
☐ Carbon dioxide, 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)
☐ Greenhouse Gases, GHGs (75,000 tpy CO_2e and 100 tpy by mass)

For each of the pollutants selected above, a best available control technology (BACT) analysis must be conducted for each emission unit that is emitting that pollutant if that unit is being physically modified or undergoing a change in method of operation. 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 and be sure to review the guidance document available on the Department's website.

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

Ambient Air Impact Analysis – Chapter 4, Section 001

Title 129, Chapter 4, Section 001 requires the owner or operator of the proposed source or modification to demonstrate that the allowable emission increases from the proposed source or modification will not cause or contribute to air pollution in violation of any ambient air quality standard or increment. Please consult the "*PSD and Minor Source Modeling*" guidance document for information on PSD modeling. This document can be found on the Department's website (http://dee.ne.gov/). 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 2.0 must be completed as appropriate.

☐ An Air Dispersion Modeling Protocol has been approved by the Department and is attached.

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NDEE Facility ID#: ______________

Section 4.3: PSD Information (continued)

Pre-application Ambient Air Quality Analysis – Chapter 4, Section 001

Title 129, Chapter 4, Section 001 requires a source needing to obtain a PSD construction permit to conduct an analysis of the ambient air quality in the area where the major stationary source or major modification will occur for and the pollutants for which the source will have the potential to emit the pollutant in excess of the significance threshold or for which there will be a significant net emissions increase as a result of the major modification. If a pre-application analysis is necessary, you may request to utilize pre-existing ambient air quality data if the data is representative of the air quality where the major source is/will be located. Refer to USEPA document EPA-450/4-87-007 titled "*Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)*" for guidance on the use of representative air quality data.

Additional Impact Analysis - Chapter 4, Section 001

Title 129, Chapter 4, Section 001 requires the owner or operator to provide an analysis of the impairment to visibility, soils, and vegetation that would occur as a result of the source or modification as well as general commercial, residential, industrial, and other growth associated with the source or major modification.

☐ Additional Impact Analysis is attached.