



PERMIT APPLICATION - NATURAL GAS PROCESSING PLANTS

NORTH DAKOTA DEPARTMENT OF HEALTH
 DIVISION OF AIR QUALITY
 SFN 11408 (05-11)

GENERAL

Name of Firm or Organization				Application Date	
Applicant's Name			Title		Phone Email
Mailing Address			City & State		Zip Code
Plant Location 1/4 Sec. Twp. Rge.			County		Source ID

SWEETENING OPERATIONS

Chemical Process (Amine, Selexol, Stretford, Etc.)		Inlet Gas Capacity x 10⁶ standard cu. ft/day	
Inlet Gas Composition (Mol %)			
<input type="checkbox"/>	Hydrogen Sulfide, H ₂ S	<input type="checkbox"/>	Methane, C ₁
<input type="checkbox"/>	Carbon Dioxide, CO ₂	<input type="checkbox"/>	Ethane, C ₂
<input type="checkbox"/>	Water, H ₂ O	<input type="checkbox"/>	Propane Plus, C ₃ +
<input type="checkbox"/>	Nitrogen, N ₂	<input type="checkbox"/>	Greenhouse Gases (as CO ₂ e)
		<input type="checkbox"/>	Other - Specify

ACID GAS FLARE - STACK DATA

	Average Acid Gas Flow Rate to Flare	Maximum Acid Gas Flow Rate to Flare	H ₂ S Content (%)	Heat Content of Gas (Btu/ACF)
Height Above Grade (Ft)	SCFM	SCFM		
Inside Diameter at Exit (Ft)	ACFM	ACFM		

ACID GAS FLARE – AIR CONTAMINANTS EMITTED

Pollutant	Maximum Pounds Per Hour	Tons Per Hour	Basis and Calculations for Quantities:
Particulate			
Sulfur Dioxide			
Nitrogen Oxides			
Carbon Monoxide			
Greenhouse Gases (as CO ₂ e)			
Other – Specify			

SULFUR RECOVERY OPERATIONS

Chemical Process (Klaus, Amoco, MRCR, Etc.)		Acid Gas Flow Rate x 10⁶ standard cu. ft/day	
Acid Gas Composition (Mol %)			
<input type="checkbox"/>	Hydrogen Sulfide, H ₂ S	<input type="checkbox"/>	Ethane, C ₂
<input type="checkbox"/>	Carbon Dioxide, CO ₂	<input type="checkbox"/>	Propane Plus, C ₃ +
<input type="checkbox"/>	Water, H ₂ O	<input type="checkbox"/>	Greenhouse Gases (as CO ₂ e)
<input type="checkbox"/>	Methane, C ₁	<input type="checkbox"/>	Other - Specify
Is a tail gas cleanup process used for reducing SO ₂ emissions? <input type="checkbox"/> Yes <input type="checkbox"/> No		Tail Gas Cleanup Process (CBA, Sulfreen, SCOT, etc.)	
Overall Recovery Efficiency %		Elemental Sulfur Recovered LT/Day	

TAIL GAS INCINERATOR - OPERATIONS

Name of Incinerator Manufacturer	Heat Release <div style="text-align: right;">Btu/hr</div>	Model Number
Inlet Gas Composition (Mol %)		
	Hydrogen Sulfide, H ₂ S	
	Carbon Dioxide, CO ₂	
	Water, H ₂ O	
	Nitrogen, N ₂	
	Other - Specify	

TAIL GAS INCINERATOR - STACK DATA

		Exit Gas Flow Rate		Average	Maximum
Height Above Grade <div style="text-align: right;">(Ft)</div>	Gas Temperature at Exit (Average °F)			SCFM	
Inside Diameter at Exit <div style="text-align: right;">(Ft)</div>	Gas Velocity at Exit (Average FPS)			ACFM	

TAIL GAS INCINERATOR – AIR CONTAMINANTS EMITTED

Pollutant	Maximum Pounds Per Hour	Tons Per Year	Basis and Calculations for Quantities:
Particulate			
Sulfur Dioxide			
Nitrogen Oxides			
Carbon Monoxide			
Greenhouse Gases (CO ₂ e)			
Other - Specify			

EMERGENCY FLARE - STACK DATA

	Average Acid Gas Flow Rate to Flare	Maximum Acid Gas Flow Rate to Flare	H ₂ S Content (%)	Heat Content of Gas (Btu/ACF)
Height Above Grade <div style="text-align: right;">(Ft)</div>	SCFM	SCFM		
Inside Diameter at Exit <div style="text-align: right;">(Ft)</div>	ACFM	ACFM		

EMERGENCY FLARE – AIR EMISSIONS EMITTED

Pollutant	Maximum Pounds Per Hour	Tons Per Year	Basis and Calculations for Quantities:
Particulate			
Sulfur Dioxide			
Nitrogen Oxides			
Carbon Monoxide			
Greenhouse Gases (CO ₂ e)			
Other - Specify			

Signature of Applicant	Date
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SEND COMPLETED APPLICATION TO:

North Dakota Department of Health
 Division of Air Quality
 918 E Divide, 2nd Floor
 Bismarck, ND 58501-1947
 Telephone: (701)328-5188