

## Rombough, Kyrik

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**From:** Rombough, Kyrik  
**Sent:** Tuesday, July 17, 2007 4:13 PM  
**To:** 'keen@rtpenv.com'  
**Cc:** Gustafson, Brian; Anderson, Jim A. (AQ)  
**Subject:** Potential Emissions



Emission  
Inventory.xls (22 KI

Mr. Keen:

I have enclosed an excel spreadsheet referencing the potential emissions from the Title V sources. When using these potential emissions, please keep the following in mind because in some instances the potential emissions are not very representative of the facility:

- 1) Some of the facilities, such as the peaking plants, actual operate less than 100 hours a year and by its nature the facility is not expected to operate every day. However, the potential emissions given were based on the facility operating 8,760 hours per year.
- 2) Some of the facilities burn natural gas and diesel fuel. The higher potential emissions were generated by burning diesel fuel. Most facilities burn natural gas as the primary fuel; and
- 3) The sulfur content of the diesel fuel used in the analysis was less than 0.5% by weight and not the new requirement of the ultra low sulfur diesel fuels (0.0015% by weight).

In regards to the modeling question and inquiring in house, it is recommended that the sigma y, sigma z, and relative heights are as follows:

Relative height - 5 feet for elevators and similar sources  
- 22 feet for concrete plants and similar sources

Sigma Z = (Relative Height) / (2.15)

Sigma Y = (Sigma Z) / (2) or (Relative Height) / (4.3)

If you have any other questions, please feel free to contact me either by email or by phone at 605-773-5708.

Kyrik

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Facility	Permit#	Permit Type	Industry	County	Address	City	TSP (tpy)	PM10 (tpy)	SO2 (tpy)	NOx (tpy)	VOC (tpy)	CO (tpy)	Notes
ShowPlace Wood Products	28.4401-44	Title V	Wood Manufacturing	Lincoln	Harrisburg		95.0	95.0	2.0	95.0	238.0	95.0	Potential Emissions - 2005 Permit
Sioux River Ethanol	28.0501-44	Title V	Ethanol Plant	Lincoln	Hudson		190.0	190.0	190.0	190.0	190.0	190.0	Potential Emissions - 2003 statement of basis and 2007 Permit
Great Plains Ethanol	28.0501-61	Title V	Ethanol Plant	Turner	Chancellor	28619 Spur Avenue	95.0	95.0	95.0	95.0	95.0	95.0	Potential Emissions - 2007 Permit
Millennium Ethanol	28.0502-61	Title V	Ethanol Plant	Turner	Marion	27716 462nd Avenue	320.0	320.0	2,938.0	6,472.0	3.0	24.0	Potential Emissions - 2006 Permit
Basin Electric Power Cooperative	28.0601-19	Title V	Electrical Generation	Clay	Vermillion	414 East Clark Street	11.1	6.1	226.1	99.9	3.9	58.5	Potential Emissions - 2006 statement of basis
University of South Dakota	28.2201-19	Title V	University	Clay	Vermillion	414 East Clark Street	10.1	10.1	0.4	67.5	245.0	95.1	Potential Emissions - 2007 statement of basis
Alcoa Inc	28.3306-07	Title V	Manufacturing	Yankton	Yankton	2500 Alumax Road	-	-	-	-	252.0	-	Potential Emissions - 2006 statement of basis
Kaneb Pipe Line Operating Partnership LP	28.0701-07	Title V	Pipeline	Yankton	Yankton	2608 East Hwy 50	1.0	1.0	0.0	11.0	114.0	9.0	Potential Emissions - 2006 statement of basis
Kolberg-Pioneer Inc	28.9906-07	Title V	Manufacturing	Yankton	Yankton	700 West 21st Street	36.4	30.0	263.8	1,672.3	42.9	444.1	Potential Emissions - 2004 statement of basis and 2005 Permit
Northwestern Public Service Company (Yankton)	28.0601-07	Title V	Electrical Generation	Yankton	Yankton	1/8 mile NE adjacent to Hwy 5	9.8	5.0	343.0	96.6	3.8	57.0	Potential Emissions - 2004 statement of basis and 2004 Permit
South Dakota Human Services Center	28.0101-07	Title V	Steam Generation	Yankton	Yankton	1351E Broadway	9.8	5.0	343.0	96.6	3.8	57.0	Potential Emissions - 2004 statement of basis and 2004 Permit