UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
901 N. 5th STREET
KANSAS CITY, KANSAS 66101

AIR PERMITTING AND COMPLIANCE BRANCH

August 4, 2006

W. Clark Smith
Permitting Section Supervisor
Air Quality Division
Nebraska Department of Environmental Quality
P.O. Box 98922
Lincoln, NE 68509-8922

RE: Ag Processing, Inc. – Soybean Processing Facility, Hastings, Nebraska
Draft PSD construction permit comments

Dear Mr. Smith:

On July 12, 2006, EPA Region 7 received notification of NDEQ's intent to approve the Prevention of Significant Deterioration (PSD) construction permit to modify an existing air contaminant source for the Ag Processing, Inc. – Soybean Processing Facility (AGP), located in Hastings, Nebraska. The project includes the installation of a 382 MMBtu/hr circulating fluidized bed (CFB) coal-fired boiler and various support equipment. The EPA Region 7 has completed its review of the draft permit, and we are providing the following comments.

1) It appears that AGP did not adequately evaluate NO_x emission limits less than 0.08 lbs NO_x/MMBtu, and has not justified this higher limit where other boilers are achieving the lower limit of 0.07 lbs/MMBtu. Therefore, we ask NDEQ to require AGP to supplement its application with additional detail on why 0.07 lbs/MMBtu or lower can't be met. It generally isn't sufficient to rely only on the vendor considerations when setting BACT.

2) On page 11 of the permit, section EP# 401 (VI) limits the use of fuel combusted in the CFB boiler to only sub-bituminous coal, and page 2 of the fact sheet states that only low sulfur coal will be burned in the CFB boiler. The BACT analysis falls short of presenting the expected sulfur content of the low sulfur coal that is proposed to be combusted in the CFB boiler, and it does not give adequate justification for selecting an emission limit of 0.11 lb SO_2/MMBtu. Page 13 of 17 of the May 5, 2006 correspondence from Thompson Environmental Consulting, Inc., representing AGP, states that AGP has made arrangements with Hastings Utilities for Hastings Utilities to supply AGP with coal through their supplier. After Hastings Utilities Whelan 1 was permitted, the EPA developed an annual

SO_2 inlet rates table from data that were gathered for Subpart D units in Region 7. The estimated average for Whelan 1 from data gathered from years ranging from1985, 1990, 1995 to 2002 is 0.65 lbSO_2/MMBtu. A copy of this table is enclosed. Also enclosed with this letter is a data summary spreadsheet developed by Region 7 of sulfur content of coal shipped to sources within the Region 7 states. The data was reported by the coal mines and was consolidated by Burlington Northern Santa Fe Railroad into the "Guide to Coal Mines Served by Burlington Northern and Santa Fe Railway." It shows the sulfur content (SO_2 equivalent) of the PRB-Wyoming coal delivered to coal combustion units in the Region to be on average of 0.74-0.76 lbSO_2/MMBtu. Considering the average reported levels in the table, the 0.11 lbSO_2/MMBtu stated in the draft permit should not be considered BACT for low sulfur coal that AGP is proposing to burn. Even at 90% emission control, BACT should be set at 0.074-0.076 on a 30 day average. We would hope to see the department set SO_2 BACT with a 92-95% control efficiency. AGP stated they will be purchasing their coal through Whelan 1, and data indicates a BACT limit with 90% control efficiency of that coal would be as low as 0.065 lbSO_2/MMBtu. We want to point out that we are not suggesting that AGP must limit their fuel combustion to low sulfur coal in the permit, but if the source chooses this condition, the BACT limit should be set appropriately and AGP should operate its BACT controls at peak performance to minimize emissions.

3) Page 27 of the permit, EP# 410, states the permit limit for silt loading on the haul roads as 0.40 g/m^2; however, the fact sheet, Appendix A, Haul Road Emission Calculations, states the road surface silt loading (sL) value for PM/PM_{10} as 3.00 g/m^2. The fact sheet needs to be corrected to agree with the permit limit of 0.40 g/m^2.

4) Several typographical errors are present throughout the permit relating to a reference to Condition 1.XI. The errors incorrectly reference Condition 1.X and are found on pages: 13, EP# 402, II(F); 15, EP# 403, IIF; 17, EP# 404, IIF; 19, EP# 405A and 405B, IIF; 22, EP# 408, IIF; 24, EP# 408.1, IIF; 26, EP# 409, IIF; and 27, EP# 410, IIF. The fact sheet also contains this same incorrect reference on page 3, first paragraph under Haul Roads.

As always, we appreciate the opportunity to provide what we hope you will find to be constructive comments. Please contact Patricia Scott at (913) 551-7312 if you have any questions or comments regarding this letter.

Sincerely,

JoAnn M. Heiman
Branch Chief
Air Permitting and Compliance Branch
Air, RCRA, and Toxics Division

Enclosures: Table of Annual SO_2 Inlet Rates for NSPS Subpart D Units in Region 7 taken from the June 30, 2004 EPA comment letter on City Utilities of Springfield, Southwest Power Station Unit 2, found at: http://www.epa.gov/region07/programs/artd/air/nsr/archives/2004/r7comments/city_utilities_of_springfield_psd_comments.pdf

Table of data summarizing sulfur content of coal shipped to sources in Region 7 states, taken from "Guide to Coal Mines Served by Burlington Northern and Santa Fe Railway" found at: http://www.bnsf.com/markets/coal/pdf/mineguide.pdf

Annual SO2 Inlet Rates for NSPS Subpart D Units in Region 7
(#SO2/mmBtu)

		1980	1985	1990	1995	1996	1997	1998	1999	2000	2001	2002
SO2 Rate	Ames 8		1.12	0.41	0.40	0.42	0.44	0.36	0.36	0.38	0.34	0.36
	CBEC 3	0.68	0.85	0.66	0.76	0.70	0.73	0.80	0.74	0.68	0.65	0.65
	Neal 3	1.13	1.32	0.73	0.83	0.73	0.73	0.72	0.68	0.66	0.72	0.67
	Neal 4	1.13	0.73	0.72	0.71	0.77	0.76	0.77	0.73	0.65	0.71	0.68
	Lansing 4	1.16	0.70	0.67	0.69	0.61	0.58	0.77	0.74	0.66	0.63	0.55
	Louisa 101		0.79	0.75	0.76	0.77	0.75	0.72	0.70	0.64	0.59	0.58
	Ottumwa 1		0.82	0.72	0.71	0.77	0.71	0.72	0.70	0.66	0.65	0.59
	LaCygne 2		0.94	0.83	0.70	0.77	0.75	0.78	0.73	0.68	0.72	0.69
	Nearman 1		0.82	0.75	0.72	0.67	0.67	0.76	0.84	0.72	0.78	0.81
	Iatan 1	0.66	0.77	0.72	0.72	0.72	0.75	0.76	0.74	0.65	0.62	0.61
	GG 1	0.73	0.72	0.73	0.62	0.63	0.47	0.47	0.47	0.52	0.57	0.59
	GG 2		0.73	0.72	0.61	0.62	0.48	0.51	0.47	0.50	0.57	0.57
	Whelan 1		0.91	0.50	0.52	0.68	0.63	0.64	0.72	0.64	0.61	0.67
	Lon Wright	0.72	0.88	0.86	0.92	0.61	0.56	0.58	0.46	0.48	0.49	0.44
	NE City 1	0.80	0.92	0.70	0.79	0.72	0.76	0.53	0.71	0.67	0.68	0.63
	Platte 1		0.98	0.75	0.66	0.65	0.64	0.84	0.72	0.66	0.60	0.62
Weighted Average		0.87	0.83	0.73	0.71	0.71	0.67	0.68	0.67	0.64	0.64	0.62

"Guide to Coal Mines", Burlington Northern and Santa Fe Railway

Coal Region	Mine	Sulfur, %wt	GHV, Btu/lb	#SO2/mmBtu	Permitted Annual Production, million tpy	Permit Weighted #SO2/mmBtu	Annual Production, million tpy (1996)	Production Weighted #SO2/mmBtu
PRB-Montana	Decker	0.40	9,500	0.84	14		11	
PRB-Montana	Bull Mountain No. 1	0.50	10,450	0.96	6		0.3	
PRB-Montana	Absaloka	0.65	8,750	1.49	7		4.7	
PRB-Montana	Rosebud	0.80	8,750	1.83	18		8	
PRB-Montana	Big Sky	0.95	8,800	2.16	5	1.41	5	1.43
PRB-Wyoming	Rochelle	0.21	8,750	0.48	30		26.2	
PRB-Wyoming	Antelope	0.22	8,800	0.50	30		12	
PRB-Wyoming	North Rochelle	0.23	8,800	0.52	15		Planned	
PRB-Wyoming	North Antelope	0.24	8,800	0.55	35		28.6	
PRB-Wyoming	Black Thunder	0.28	8,850	0.63	44		39.2	
PRB-Wyoming	Belle Ayr	0.30	8,549	0.70	25		20	
PRB-Wyoming	Caballo Rojo	0.32	8,450	0.76	30		15.1	
PRB-Wyoming	Coal Creek	0.33	8,380	0.79	10		5.8	
PRB-Wyoming	Rawhide	0.36	8,320	0.87	24		15	
PRB-Wyoming	Cordero	0.37	8,350	0.89	24		13	
PRB-Wyoming	Caballo	0.38	8,500	0.89	35		22	
PRB-Wyoming	Dry Fork	0.37	8,175	0.91	15		2.9	
PRB-Wyoming	Buckskin	0.40	8,450	0.95	20		11.9	
PRB-Wyoming	Eagle Butte	0.41	8,350	0.98	20		15.7	
PRB-Wyoming	Jacobs Ranch	0.45	8,695	1.04	35		24.6	
PRB-Wyoming	Wyodak Clovis Point	0.42	8,050	1.04	10		0.2	
PRB-Wyoming	Fort Union	0.42	7,990	1.05	8.2	**0.76**	1	**0.74**
Colorado-NM	York Canon	0.50	12,000	0.83	6		1.3	
Colorado-NM	Lorencito	0.60	12,800	0.94	2.5		Planned	
Colorado-NM	King	0.67	12,800	1.05	0.8		0.3	
Colorado-NM	McKinley	0.54	9,907	1.09	9		5.3	
Colorado-NM	Lee Ranch	0.78	9,150	1.70	6	1.13	4.3	1.27
Illinois	Rend Lake	1.10	12,100	1.82	3.5		3.3	
Illinois	Crown II	3.35	10,700	6.26	2.5	3.54	1.7	3.21
North Dakota	Freedom	0.70	6,775	2.07			15.7	
North Dakota	Beulah	0.90	7,000	2.57	4.5	2.57	2.6	2.14
Utah	Sufco	0.35	11,450	0.61			4.2	
Utah	Deer Creek	0.41	11,615	0.71			4.3	
Utah	Bear Canyon #1	0.50	12,400	0.81			0.6	
Utah	Willow Creek	0.50	11,950	0.84	5			
Utah	Soldier Canyon	0.50	11,800	0.85			1	
Utah	Skyline	0.50	11,750	0.85			4.4	
Utah	Cyprus Plateau	0.55	11,700	0.94	3		3	
Utah	Crandall Canyon	0.60	12,300	0.98			2.5	
Utah	Aberdeen	0.60	12,000	1.00		0.88	2.5	0.82
Washington	John Henry	0.80	11,800	1.36	0.33	1.36	0.185	1.36