

R. SERIES/Initials CON 10-1 / C.A.R.

FACILITY ID 64-01-012

WIK ACT/Doc Code CP / GC

Project # / Permit # 07-602 /

01/09/09

# **Pre-Public Comment Correspondence with EPA**

**Correspondence with EPA prior to the  
Public Comment Period**

## **Roling, Chris [DNR]**

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**From:** Roling, Chris [DNR]  
**Sent:** Tuesday, January 20, 2009 1:30 PM  
**To:** Webber.Robert@epamail.epa.gov  
**Subject:** FW: Information Request  
**Attachments:**

Bob,

Here is the Montana info.

Chris

Christopher A. Roling, PE  
Environmental Engineer Senior  
Air Quality Bureau, IDNR  
ph: 515-242-6002  
fax: 515-242-5094

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**From:** Roling, Chris [DNR]  
**Sent:** Friday, October 24, 2008 7:44 AM  
**To:** Arnold, Alan  
**Cc:** Hillman, Timothy M.; Byers, Andrew C. (Andy); Daniel, Chad; Phelps, Dave [DNR]; Hanson, Lori [DNR]; Spackman, Christine [DNR]  
**Subject:** Information Request

Alan,

As I mentioned in the conference call here is the information I need:

- 1) A Form CE for any Low NOx burners associated with combustion units as they are considered control equipment.
- 2) Potential emissions for the existing Sutherland Station. Please provide for all regulated PSD pollutants. The PTE should be based on the regulations (i.e. permit limits, operating limits, default rules). A table with the tpy rates is fine as long as there are notes on how the emission rates were calculated.
- 3) The baseline emissions for the existing Sutherland Station. Again, this should be for all regulated PSD pollutants and based on the regulations (i.e. average of 24 months, etc.). Also, a table with the tpy rates is fine as long as you list which years were used to calculate. The numbers should match up to past emission inventory submittals.

Finally, attached are two documents that might be of interest to you. One is the decision made by the Montana Board of Environmental Review and the other is a recent draft permit from Montana. The draft permit has a BACT analysis for PM2.5. The permit does not have an emission limit on PM2.5, but rather requires the facility to submit a BACT analysis to determine the emission rate once testing of PM2.5 has been conducted.

Let me know if you have any questions,  
Chris

Christopher A. Roling, PE  
Environmental Engineer Senior  
Air Quality Bureau, IDNR  
ph: 515-242-6002  
fax: 515-242-5094

## **Roling, Chris [DNR]**

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**From:** Hanson, Lori [DNR]  
**Sent:** Tuesday, January 20, 2009 2:42 PM  
**To:** Webber.Robert@epamail.epa.gov  
**Cc:** Roling, Chris [DNR]  
**Subject:** Modeling report for IPL PSD project  
**Attachments:** Attachment for 07-602.xls; PSD 07-602 12-02-08.doc

Hi Bob,

Chris Roling asked that I send you an electronic copy of the modeling report for the IPL Sutherland Generating Station coal-fired boiler PSD project. The report and associated attachment have been included with the email. If you have any questions or need additional information, just let me know. Lori

POINT SOURCE EMISSION RATES AND STACK PARAMETERS

Emission Unit	Description	NOX (lb/hr)	SO2 (lb/hr)	PM10 (lb/hr)	CO (lb/hr)	F (lb/hr)	TRS (lb/hr)	Stack Height (ft)	Stack Gas Exit		Stack Gas Flow Rate (acfm)	Discharge Style
									Temp (F)	Diameter (in)		
EP248	Unit 4 boiler	316.7	380	101.3	760	1.27	6.33	601	125 - 130	31.8	1,025,900 - 1,985,600	Vertical
EP297	Natural Gas Heater	0.14	0.002	0.022	0.142	0	9.00E-04	20	700	15	1,430	Vertical
EP249	Auxiliary Boiler	9.94	0.16	1.88	19.88	0	0.08	285	650	60	51,850	Vertical
EP250A	Diesel Generator Stack 1	NA	0.49	0.12	1.72	0.003	0.26	10	761	8	7,570	Vertical
EP250B	Diesel Generator Stack 2	NA	0.49	0.12	1.72	0.003	0.26	10	761	8	7,570	Vertical
EP251	Diesel Fire Pump	NA	0.2	0.1	0.95	0.001	0.11	12	918	6	2,900	Vertical
EP252	Diesel Fire Pump	NA	0.067	0.062	0.11	4.00E-04	0.04	12	1,044	5	790	Vertical
EP253a-x	Cooling Tower (each of 24 cells)			0.14				53	85	360	1,477,500	Vertical
EP254A	Rotary Car Dumper			7.29E-01				40	70	84	85,000	Vertical
EP254B	Rotary Car Dumper			7.29E-01				40	70	84	85,000	Vertical
EP255	Transfer Tower 1			2.57E-01				30	70	48	30,000	Vertical
EP259	Transfer Tower 2			3.86E-01				75	70	60	45,000	Vertical
EP260	Reclaim Hopper			5.14E-02				12	-459.7	24	6,000	Vertical
EP266	Crusher House			2.49E-01				130	70	48	29,000	Vertical
EP267	Transfer Tower 3 & Coal Silos			4.71E-01				231.5	70	66	55,000	Vertical
EP261	Transfer Tower 4			6.86E-02				35	70	24	8,000	Vertical
EP263	Transfer Tower 5			3.86E-02				35	70	20	4,500	Vertical
EP264	Existing Transfer Tower			6.86E-02				75	70	24	8,000	Vertical
EP265	Truck Load Out Facility			1.03E-01				75	70	30	12,000	Vertical
EP275	Limestone Processing Building			6.43E-02				104	-459.7	24	7,500	Vertical
EP278	Mechanical Exhauster 1/2			2.35E-02				105*	120	14.4	3,000	Horizontal
EP279	Bin Vent - Saleable Fly Ash Silo			1.96E-02				116	120	15	2,500	Horizontal
EP280A	DC2 - Winter Fly Ash Storage Building			1.57E-01				47	120	42	20,000	Vertical
EP280B	DC1 - Winter Fly Ash Storage Building			1.57E-01				47	120	42	20,000	Vertical
EP281	Mechanical Exhauster 1/2			2.35E-02				105*	120	14.4	3,000	Horizontal
EP282	Bin Vent - Waste Fly Ash Silo			1.96E-02				116	120	15	2,500	Horizontal
EP283	Bin Vent - PAC Silo			8.58E-03				89	-459.7	13.2	1,000	Horizontal
EP284	Bin Vent - Day Silo			4.29E-02				75	-459.7	13.2	5,000	Horizontal
EP285	Bin Vent - Long Term Silo			4.29E-02				75	-459.7	13.2	5,000	Horizontal
EP286	Bin Vent Silo			4.29E-02				77	-459.7	13.2	5,000	Horizontal
EP287	DC1A - Biomass Storage & Processing			2.44E-01				46.4	70	48	28,500	Vertical
EP288	DC1B - Biomass Storage & Processing			2.44E-01				46.4	70	48	28,500	Vertical

\*These two stacks are 65' above the base of the building and the building is on 40' stilts, making the stack height 105' above ground level.

**VOLUME SOURCE EMISSION RATES AND PARAMETERS**

<b>Emission Unit</b>	<b>Description</b>	<b>Total PM10 (lb/hr)</b>	<b>Release Height (ft)</b>	<b>Initial Lateral Dimension (ft)</b>	<b>Initial Vertical Dimension (ft)</b>
<b>Coal Handling</b>					
EP262	Transfer from Stamler to Conveyor*	5.07E-03	12	0.47	2.79
CCVY2_1-90	Belt Conveyor*	9.17E-02	3	5.58	0.7
CFDR9_1-7	Stamler Feeder*	4.00E-03	varies	1.86	0.7
PRB1BD(1-29)	Bulldozing - PRB Coal Pile 1*	1.92E-02	5.69	10.98	5.08
PRB2BD(1-25)	Bulldozing - PRB Coal Pile 2*	1.92E-02	5.69	10.98	5.08
BLD1BD(1-16)	Bulldozing - Eastern Coal Pile 1*	1.92E-02	5.69	10.98	5.08
BLD2BD(1-15)	Bulldozing - Eastern Coal Pile 2*	1.92E-02	5.69	10.98	5.08
<b>Limestone</b>					
EP274	Transfer from Stamler to Conveyor*	2.58E-02	12	0.47	2.79
LFDR1(1-7)	Stamler Feeder*	2.00E-03	varies	1.86	0.7
LCVY1(1-25)	Reclaim Conveyor*	2.00E-03	3	1.86	0.7
LMSTBD(1-7)	Bulldozing Limestone Pile*	6.42E-02	5.69	10.98	5.08
<b>Haul Roads</b>					
HR (001 - 231)	Haul Roads**	0.196	3.44	22.33	10.6

\*Chemical dust suppressant to achieve 95% control.

\*\*All haul roads have daily water flushing and sweeping to achieve 80% control.

**AREA SOURCE EMISSION RATES AND PARAMETERS**

Emission Unit	Description	PM10 (lb/hr)	PM10 (lb/hr/ft2)	Release			Y (ft)	Initial Vertical Dimension (ft)
				Height (ft)	X (ft)			
<b>Coal Handling</b>								
EP269A	PRB Coal Stacker Reclaimer Pile 1*	0.031	3.30E-07	20	654.3	145	9.3	
EP269B	PRB Coal Stacker Reclaimer Pile 2*	0.028	3.54E-07	20	554.2	145	9.3	
EP269C	Eastern Coal Stacker Reclaimer Pile 1*	0.021	5.07E-07	20	282.6	145	9.3	
EP269D	Eastern Coal Stacker Reclaimer Pile 2*	0.021	5.07E-07	20	282.6	145	9.3	
EP270	PRB Long Term Storage	0	0	21.5	NA	NA	10	
EP271A	Eastern Long Term Storage 1	0	0	17.5	250	344.5	8.14	
EP271B	Eastern Long Term Storage 2	0	0	12.5	NA	NA	5.81	
<b>Limestone</b>								
EP276	Limestone Storage Pile*	0.007	6.82E-07	8	120	80	3.72	
EP277	Limestone Long Term Storage	0	0	12.5	150	225	6.98	

\*Chemical dust suppressant to achieve 95% control.



**IOWA DEPARTMENT OF NATURAL RESOURCES**

**Environmental Services Division  
Air Quality Bureau  
Modeling Group**

**M E M O R A N D U M**

**DATE:** 12-02-08  
**TO:** CHRIS ROLING  
**FROM:** LORI HANSON  
**RE:** SUTHERLAND GENERATING STATION (64-01-012), PSD PN 07-602  
**CC:** CATHARINE FITZSIMMONS, JIM MCGRAW, DAVE PHELPS

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**ANALYSIS RESULTS**

- Passed / Acceptable
- Changes required that affect the permits (see below for details)
- Does not pass / Not acceptable

**ANALYSIS SUMMARY**

Review of the Prevention of Significant Deterioration (PSD) dispersion modeling analysis for the Interstate Power and Light Company Sutherland Generating Station (SGS) facility located in Marshalltown, indicates that the modeling analysis is acceptable.

This modeling analysis has been submitted in support of the PSD permit application to install a new 649 megawatt supercritical pulverized coal-fired boiler (Unit 4) at the existing SGS facility. This project also includes supporting ancillary equipment and material handling equipment associated with Unit 4. The proposed design will allow the existing coal uploading, storage and reclaim units to be retired once Unit 4 becomes operational.

The permit application for this project was originally received November 1, 2007. Receipt of the original permit application sets November 1, 2007 as the PM<sub>10</sub> minor source baseline date for the "Remainder of Marshall County" baseline area. The permit application was re-submitted April 3, 2008 with design modifications related to the maximum blend of bituminous coal. The dispersion modeling analyses were revised and resubmitted again on October 28 and November 10, 2008 to address increased PM<sub>10</sub> emission rates associated with material handling sources and changes to several building heights.

Based on the proposed potential to emit, emissions of NO<sub>x</sub>, SO<sub>2</sub>, PM<sub>10</sub>, CO, volatile organic compounds (VOC), fluorides, and total reduced sulfur (TRS) trigger a PSD modeling review. Since the proposed VOC potential to emit is below 100 tons per year, an ambient impact analysis is not required.

The emission rates and modeled parameters for emission units associated with this project are summarized in Table 4 of the "Response to IDNR Request for Additional Information #8" submitted on September 24, 2008. Revised PM<sub>10</sub> emission rates and stack parameters associated with changes to the dust collectors are summarized in the Table 4 of the modeling report dated October 27, 2008. For convenience, all emission rates and stack parameters used in the modeling analyses are summarized in the attachment to this document. Although several operating loads and fuel combinations were evaluated in the dispersion modeling, only the highest emission rates are listed in the DNR summary attachment.

The preliminary modeling analyses for emissions of NO<sub>x</sub>, SO<sub>2</sub>, PM<sub>10</sub>, and CO resulted in impacts below all applicable PSD significant impact levels for these pollutants. Since the preliminary modeling analysis of these pollutants resulted in predicted concentrations below the applicable PSD significant impact levels, full (cumulative) impact modeling analyses are not required.

There are no established PSD significant impact levels for emissions of fluoride and TRS, however modeling evaluations for these pollutants are still required. The worse-case predicted impacts from the Unit 4 project are listed in Table 5 of the "Response to IDNR Request for Additional Information #13" submitted via email on the November 7, 2008. Revised modeling for fluorides and TRS incorporating the downwash changes were not submitted. The DNR conducted revised modeling for fluorides and TRS that included the downwash changes. All submitted modeling results and the DNR modeling results are summarized in Table 1 of this document for convenience.

A PSD increment analysis is not required since all worse-case modeled impacts from this project were below the applicable PSD significant impact levels. The worse-case impacts from the preliminary modeling of NO<sub>x</sub>, SO<sub>2</sub>, and PM<sub>10</sub> can conservatively be used to estimate the maximum increment consumption resulting from the Unit 4 project. Modeling results are compared to the applicable PSD Class II increment levels in Table 2. This methodology is overly conservative for the short-term averaging periods. The predicted concentrations from the preliminary modeling are all the highest predicted impacts, whereas the short-term increment levels should be the highest, second-high values.

#### **ANCILLARY EMISSION UNITS MODELING**

The Unit 4 project includes several ancillary emission units that will only be operated when the rest of the facility is not in operation, except for test and maintenance purposes. The ancillary sources associated with this project include short-term operation of the auxiliary boiler, an emergency generator and two emergency diesel fire pumps. Per DNR guidance, these ancillary sources were cumulatively modeled in separate analyses to assure compliance with the applicable short-term NAAQS. The modeling results of short-term impacts from the ancillary sources are listed in Table 7 of the "Response to IDNR Request for Additional Information #13" submitted via email on the November 7, 2008 and are summarized in Table 3 of this document for convenience. All impacts are predicted to be below the applicable PSD Significant Impact Levels.

#### **PRECONSTRUCTION MONITORING**

All modeled impacts for the Unit 4 project are well below the applicable significant monitoring concentrations. The DNR historically exempts applicants from the requirement for preconstruction monitoring if the modeled concentrations from the project are below the significant monitoring concentrations, therefore no pre-construction monitoring will be required for the Unit 4 project. The modeled

impacts were compared with the significant monitoring concentrations in Table 1 of Appendix I in the March 3, 2008 submittal. The revised modeling results are compared to the significant monitoring concentrations in Table 1 of this document.

## **ADDITIONAL IMPACTS**

An additional impacts analysis evaluating the project's impact on residential, commercial and industrial growth, soils and vegetation, and visibility in the vicinity of the facility was conducted. These analyses are discussed in detail in Appendix I of both the November 1, 2007 and March 3, 2008 submittals.

The addition of Unit 4 is intended to meet the current and existing projected electrical demands of the surrounding area and is anticipated to result in little growth from its operation. The applicant estimates that the project will result in approximately 85 full-time jobs. The project is intended to meet current electrical demand and the number of permanent jobs resulting from the project is small relative to the population size of the surrounding area, therefore the effects to ambient air quality from growth resulting from the project are expected to be insignificant.

The soils and vegetation analyses indicate that there will be no adverse impacts to soils and vegetation in the vicinity of the SGS facility. A thorough inventory of the soils and vegetation found within three kilometers of the SGS facility was conducted. Appendix I contains this inventory along with a description of the potential effects of the PSD applicable pollutants on the vegetation. In conjunction with the inventory and description of potential effects, the IDNR soils and vegetation tool was used to evaluate the impact of the emissions from the project on sensitive vegetation. Although the results from the IDNR tool resulted in a value over the screening level for the 10-day averaging period for fluoride, the tool conservatively estimates impacts based on the ton per year of fluoride emissions being emitted. The DNR modeled impact of the 24-hour averaging period ( $0.01 \mu\text{g}/\text{m}^3$ ) indicates that the 10-day screening level for fluoride ( $0.5 \mu\text{g}/\text{m}^3$ ) will not be exceeded.

Class II visibility analyses were conducted to evaluate the potential for plume visibility at the Union Grove and Rock Creek State Parks. Because there is no significant terrain within either park, only results for INSIDE the state parks against a SKY background were reviewed. The submitted Level 2 screening analyses of the incremental increase in emissions associated with the Unit 4 project indicated that the visibility screening criteria for INSIDE the state parks and against a SKY background would be exceeded during meteorological conditions that are likely occur less than one percent of the time (about four days per year).

The DNR conducted an additional evaluation to determine the net increase in the number the days with a visible plume at the state parks that are likely to occur as a result of the Unit 4 project. This was accomplished by executing the visibility analysis once with existing facility-wide emissions, and then again with the proposed facility-wide emissions after the project. The net increase in days with a visible plume is calculated as the difference between the numbers of days with a visible plume for each scenario. Again, only results for INSIDE the state parks against a SKY background were reviewed because there is no significant terrain within either park.

The DNR visibility analysis indicated that the emissions from SGS (both before and after the project) have the potential to cause a visible plume at Union Grove State Park under all of the meteorological conditions

recommended to be evaluated in EPA's "Workbook for Plume Visual Impact Screening and Analysis (Revised)" October 1992. Since the plume is visible during all of the meteorological conditions reviewed, this methodology is not useful in determining increased plume visibility. Any increase in the number of days with a visible plume at Union Grove State Park due to this project is likely to be negligible.

The revised visibility analysis for Rock Creek State Park indicated that the emissions from the Unit 4 project have the potential to cause a visible plume at Rock Creek State Park no more than an additional 0.3% of the time, this equates to approximately one additional day per year. Again, any increased plume visibility due to the proposed modification is likely to be negligible.

#### **CLASS I AREA IMPACTS ANALYSIS**

PSD projects for facilities that propose to located within 100 kilometers of a Class I area, and PSD projects proposing to locate at a distance greater than 100 kilometers that have high enough emission rates to have an impact on a Class I area, must conduct a Class I area impact analysis. There are currently no Class I areas located within 100 kilometers of Iowa's borders. The closest Class I areas to the proposed project are the Rainbow Lake Wilderness Area (Wisconsin) and the Hercules-Glades Wilderness Area (Missouri) located approximately 510 and 590 kilometers away, respectively.

In a letter dated November 5, 2007, Interstate Power and Light notified the Region 9 USDA Forest Service, the U.S. Fish and Wildlife Service, and the National Parks Service about the proposed project. In an email to Interstate Power and Light sent November 5, 2007, the Forest Service stated that they had reviewed the proposed project and that "Due to the emissions from the facility, in relation to its distance from the Forest Service Class I areas, we are not requesting that any Class I modeling be done for this project." The federal land managers listed above will also be notified by the DNR during the public comment period for this project.

Table 1. Worse-case Modeled Impacts from Unit 4 Project

Pollutant	Averaging Period	Year in which event occurred	Worse-case Predicted Concentration* ( $\mu\text{g}/\text{m}^3$ )	PSD Significant Impact Level ( $\mu\text{g}/\text{m}^3$ )	Significant Monitoring Concentration ( $\mu\text{g}/\text{m}^3$ )
NO <sub>x</sub>	Annual	2004	0.64	1	14
SO <sub>2</sub>	3-hour	2004	11.32	25	--
	24-hour	2001	3.52	5	13
	Annual	2002	0.29	1	--
PM <sub>10</sub>	24-hour	2003	4.91	5	10
	Annual	2001	0.87	1	--
CO	1-hour	2000	48.09	2,000	--
	8-hour	2002	18.63	500	575
Fluorides	24-hour	2002	0.01	--	0.25
TRS	1-hour	2003	0.54	--	--

\* All modeled concentrations are the highest predicted values.

Table 2. Estimated Increment Consumption from the Unit 4 Project

Pollutant	Averaging Period	Worse-case Predicted Concentration* ( $\mu\text{g}/\text{m}^3$ )	PSD Class II Increment Level ( $\mu\text{g}/\text{m}^3$ )	Estimated Maximum Percent of Available Increment Used
NO <sub>x</sub>	Annual	0.64	25	2.6
SO <sub>2</sub>	3-hour	11.32	512	2.2
	24-hour	3.52	91	3.9
	Annual	0.29	20	1.5
PM <sub>10</sub>	24-hour	4.91	30	16.4
	Annual	0.87	17	5.1

\* Note that the increment consumed for the short-term averaging periods is conservative since the predicted concentrations from the preliminary analysis are the highest predicted concentrations, whereas the short-term increment levels are the highest, second-high values. Annual concentrations are the highest predicted value.

Table 3. Modeling Results for the Ancillary Sources\*

Pollutant	Averaging Period	Year in which event occurred	Predicted Concentration** ( $\mu\text{g}/\text{m}^3$ )	PSD Significant Impact Level ( $\mu\text{g}/\text{m}^3$ )
SO <sub>2</sub>	3-hour	2001	23.1	25
	24-hour	2004	4.7	5
PM <sub>10</sub>	24-hour	2004	1.43	5
CO	1-hour	2003	110.1	2000
	8-hour	2001	45.3	500

\* The ancillary sources include the short-term operation of the auxiliary boiler, an emergency generator and two emergency diesel fire pumps.

\*\* The modeled short-term concentrations are all the highest predicted values.

**Roling, Chris [DNR]**

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**From:** Webber.Robert@epamail.epa.gov  
**Sent:** Tuesday, January 20, 2009 1:51 PM  
**To:** Roling, Chris [DNR]  
**Cc:** Knodel.Jon@epamail.epa.gov  
**Subject:** Sierra Club Letter  
**Attachments:** Sierra Club letter to AWMD Director.pdf

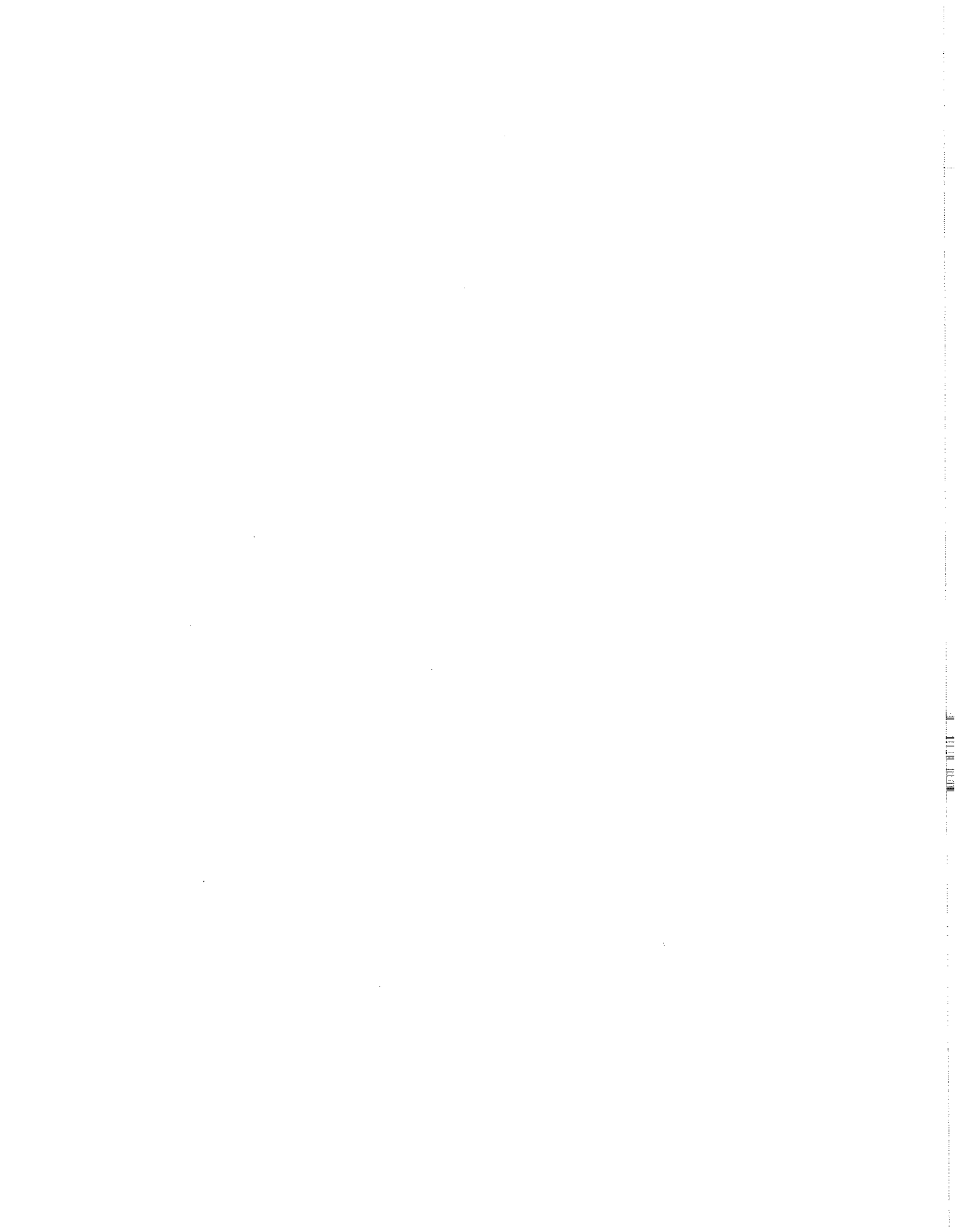
Chris,

Here is the letter sent to my Division Director.

Thanks,

Bob Webber  
Air Permitting & Compliance Branch  
Air and Waste Management Division  
U.S. Environmental Protection Agency, Region VII  
901 North 5th Street  
Kansas City, KS 66208  
Phone: 913-551-7251  
[webber.robert@epa.gov](mailto:webber.robert@epa.gov)

(See attached file: Sierra Club letter to AWMD Director.pdf)





**SIERRA  
CLUB**  
FOUNDED 1892

**IOWA CHAPTER**  
118 3<sup>rd</sup> Ave SE, Suite 326  
Cedar Rapids, Iowa 52401

December 20, 2008

Ms. Rebecca Weber  
Air Quality Division  
U.S. EPA, Region 7  
901 N. 5<sup>th</sup> St.  
Kansas City, KS 66101

Re: PSD permit, Sutherland Generating Station  
Iowa permit No. 08-A-542-P

Dear Ms. Weber:

I understand your office has received for review a preliminary draft of the above permit. I would like to make some comments on the permit on behalf of the Sierra Club Iowa Chapter.

The permit contains no emission limits for PM<sub>2.5</sub> or greenhouse gases. I realize that official EPA policy has been that these pollutants need not or cannot be regulated, but I request that you reconsider this position as you review this permit.

My analysis of the greenhouse gas issue is the following. A coal-fired power plant, like the one proposed by IPL, is a primary source of greenhouse gases that contribute to global climate change. In recognition of this fact, the Iowa Legislature passed legislation in 2007, S.F. 485, mandating that air permit applications for electric power generating facilities quantify their potential greenhouse gas emissions, specifically identifying those gases as carbon dioxide, methane, nitrous oxide, hydroflourocarbons, perflourocarbons, and sulfur hexaflouride. Then pursuant to federal and state law and regulations, the permit must set emission limits for greenhouse gases as part of the Best Available Control Technology (BACT) analysis. Although current law and regulations do not specifically list

greenhouse gases as air pollutants for which emission limits must be set, the requirements of the current law and regulations clearly include greenhouse gases.

The federal Clean Air Act and Iowa air quality regulations require a new major stationary source of air pollutants or a major modification of an existing source to comply with prevention of significant deterioration (PSD) requirements. 42 U.S.C. § 7475(a); 567 IAC Chapter 33. Pursuant to these requirements, a PSD permit must include BACT emission limits "for each pollutant subject to regulation under [the Clean Air Act]" for which emissions exceed specified significance levels. 42 U.S.C. §§ 7475(a), 7479; 567 IAC § 33.3(10) (adopting 40 C.F.R. § 52.21(j)(1)). The Iowa regulations adopt by incorporation the EPA's PSD regulations set forth at 40 C.F.R. § 52.21. See, 567 IAC § 33.3(10). The federal regulations provide that "[a] new major stationary source shall apply best available control technology for each regulated NSR pollutant that it would have the potential to emit in significant amounts." 40 C.F.R. § 52.21(j)(2). The federal regulations also provide that "[a] major modification shall apply best available control technology for each regulated NSR pollutant for which it would result in a significant net emissions increase at the source." 40 C.F.R. § 52.21(j)(3).

567 IAC § 33.3 defines "regulated NSR pollutant" to include "any pollutant that otherwise is subject to regulation under the [Clean Air] Act." In addition, the definition of BACT in 567 IAC § 33.3(1) makes clear that BACT requirements apply to all air pollutants subject to regulation under the Clean Air Act. That regulation states:

Best available control technology means an emissions limitation, including a visible emission standard, based on the maximum degree of reduction for each regulated NSR pollutant which would be emitted from any proposed major stationary source or major modification which the reviewing authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combination techniques for control of such pollutant.

Therefore, Iowa DNR must conduct for each pollutant subject to regulation under the Clean Air Act a case specific review of relevant energy, environment and economic considerations based on detailed information submitted by the applicant. Then, based on the BACT analysis, the permit that is issued must set emission limits for the regulated pollutants.

After the decision of the United States Supreme Court in Massachusetts v. EPA, 127 S.Ct. 1438 (2007), it is also clear that greenhouse gases are air pollutants subject to regulation. Therefore, by virtue of the discussion above, a BACT analysis must be performed for greenhouse gases and emission limits established. This conclusion has been confirmed by the Superior Court of Fulton County, Georgia in Friends of the Chattahoochee v. Couch, Docket No. 2008CV146398. The court noted that several provisions of the Clean Air Act and regulations address CO<sub>2</sub>. The court went on to observe that Congress used very broad language in the BACT statute and that the definition of "regulated NSR pollutant" in 40 C.F.R. § 52.21(b)(50), includes "any pollutant that otherwise is subject to regulation under the Act." The court then concluded that because CO<sub>2</sub> is "otherwise . . . subject to regulation," it is subject to a BACT analysis.

Relevant provisions of the Iowa Code also lend support for the argument that emission limits for greenhouse gases must be included in a construction permit. Iowa Code § 455B.131(1) defines "air contaminant" to include any gas. Greenhouse gases are, obviously, gases and would therefore be air contaminants. The permitting process is designed to abate, control and prevent air pollution. Iowa Code § 455B.133. Iowa Code § 455B.131(3) defines air pollution as:

Presence in the outdoor atmosphere of one or more air contaminants in sufficient quantities and of such characteristics and duration as is or may reasonably tend to be injurious to human, plant, or animal life, or to property, or which unreasonably interferes with the enjoyment of life and property.

Recent studies and reports have proven conclusively that greenhouse gases "may reasonably tend to be injurious to human, plant, or animal life, or to property . . . ." The Intergovernmental Panel on Climate Change, which won the

Nobel Peace Prize, has issued reports throughout 2007 documenting the existence and effects of global climate change.

In February 2007, a report was issued by the Panel concluding that:

- The global atmospheric concentration of carbon dioxide has increased from a pre-industrial value of about 280 ppm to 379 ppm in 2005;
- The atmospheric concentration of carbon dioxide in 2005 exceeds by far the natural range over the last 650,000 years;
- The primary source of the increased atmospheric concentration of carbon dioxide since the pre-industrial period results from fossil fuel use;
- There is at least a 90% chance that the global average net effect of human activities since 1750 has been one of warming;
- Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level;
- At continental, regional and ocean basin scales, numerous long-term changes have been observed. These include changes in arctic temperatures and ice, widespread changes in precipitation amounts, ocean salinity, wind patterns and aspects of extreme weather including droughts, heavy precipitation, heat waves and the intensity of tropical cyclones;
- There is greater than a 90% likelihood that most of the observed increases in global average temperatures since the mid-20<sup>th</sup> century are due to the observed increases in anthropogenic greenhouse gas emissions;
- For the next two decades, warming of about 0.2 degrees Celsius per decade is projected for a range of emission scenarios;

- There is greater than a 90% likelihood that hot extremes, heat waves and heavy precipitation events will continue to become more frequent; and
- Anthropocentric warming and sea level rise would continue for centuries due to the time scales associated with climate processes and feedbacks, even if greenhouse gas concentrations were to be stabilized.

In April 2007, the Panel released another report concluding that:

- Temperature increases have had effects on agriculture and forestry management at Northern Hemisphere higher latitudes;
- Drought-affected areas will likely increase in extent. Heavy precipitation events which are very likely to increase in frequency, will augment flood risk, and;
- In North America, major challenges are projected for crops that are near the warm end of their suitable range or depend on highly utilized water resources.

In May 2007, a third report was issued by the Panel concluding that:

- Global greenhouse gas (GHG) emissions have grown since pre-industrial times, with an increase of 70% between 1970 and 2004;
- The largest growth in global GHG emissions between 1970 and 2004 has come from the energy supply sector (an increase of 145%);
- With current global climate change mitigation policies and related sustainable development practices, global GHG emissions will continue to grow over the next few decades;
- There is substantial economic potential for the mitigation of global GHG emissions over the coming decades, that could offset the projected growth of

global emissions or reduce emissions below current levels;

- There are mitigation opportunities with net negative costs, in other words, for which the benefits such as reduced energy costs and reduced emissions of pollutants equal or exceed their costs to society, excluding the benefits of avoided climate change;
- Fuel switching from coal to gas, renewable heat and power (hydropower, solar, wind, geothermal and bioenergy), and early applications of carbon capture and storage (e.g., storage of removed carbon dioxide from natural gas) are key mitigation technologies and practices currently commercially available;
- Near-term health co-benefits from reduced air pollution as a result of actions to reduce GHG emissions can be substantial and may offset a substantial fraction of mitigation costs;
- It is often more cost-effective to invest in end-use energy efficiency improvement than in increasing energy supply to satisfy demand for energy services. Efficiency improvement has a positive effect on energy security, local and regional air pollution abatement and employment;
- Renewable energy generally has a positive effect on energy security, employment and on air quality; and
- In order to stabilize the concentrations of GHGs in the atmosphere, emissions would need to peak and decline thereafter.

In addition, the Supreme Court in Massachusetts v. EPA reviewed the evidence establishing that global climate change will have serious impacts if efforts are not undertaken to reduce greenhouse gases.

Based on the foregoing, if your office simply approves this permit without considering the regulation of greenhouse gases, your decision will suffer the same fate as the decision by Region 8 in In re Desert Power Elec. Coop., PSD Appeal No. 07-03 (EAB 2008). In that case the Environmental Appeals Board reversed approval of a permit.

and ordered Region 8 to consider the regulation of greenhouse gases and to justify its decision.

With respect to PM<sub>2.5</sub>, a BACT analysis is also required for that pollutant. PM<sub>2.5</sub>, a fine particle 2.5 microns and smaller, is a "pollutant subject to regulation." See 40 C.F.R. 52.21(b)(50)(i) which states that a regulated NSR pollutant includes "[a]ny pollutant for which a national ambient air quality standard has been promulgated and any constituents or precursors for such pollutant identified by the Administrator." The EPA has promulgated National Ambient Air Quality Standards (NAAQS) for PM<sub>2.5</sub> in 40 C.F.R. 50.7. Therefore, best available control technology ("BACT") requirements apply to PM<sub>2.5</sub> under the definition of BACT. There is no promulgated rule from EPA exempting PM<sub>2.5</sub> as a regulated pollutant subject to a BACT analysis.

Using PM<sub>10</sub> as a surrogate for PM<sub>2.5</sub> is not acceptable unless the evidence clearly shows that modeling for PM<sub>10</sub> would also include PM<sub>2.5</sub>. See Friends of the Chattahoochee, supra. There is no indication in this permit that such modeling was done.

Nor does the fact that Iowa is a SIP state relieve your agency of oversight. Your agency retains oversight authority that allows you to object to a permit that was improperly granted, 42 U.S.C. § 7477, Alaska Dep't. of Env'tl. Conserv. v. EPA, 540 U.S. 461 (2004), or to rescind approval of the State's SIP. 42 U.S.C. § 7413. You must exercise that authority in this case.

In conclusion the permit needs to have limits set for PM<sub>2.5</sub> and for greenhouse gases.

Thank you for considering these comments.

Very truly yours,



Wallace L. Taylor  
Legal Chair  
Sierra Club Iowa Chapter

## **Roling, Chris [DNR]**

---

**From:** Roling, Chris [DNR]  
**Sent:** Friday, January 09, 2009 8:30 AM  
**To:** Knodel.Jon@epamail.epa.gov; Webber.Robert@epamail.epa.gov  
**Cc:** Phelps, Dave [DNR]  
**Subject:** BACT for SSM

Jon & Bob,

We asked IPL to send us language for BACT for startup, shutdown and malfunction (SSM) for the main boiler permit. After reviewing it and making a couple of changes here is what we have:

The following requirements are BACT work practices for startup, shutdown, and malfunction operations:

- *Startup:*

Startup of the emission unit from cold conditions begins with the first introduction of natural gas fuel and continues until the boiler reaches its minimum safe stable load while firing coal, taking approximately 20 hours. Startup BACT work practice standards contained herein are applicable to this emission unit until the completion of the following sequence, or 20 hours, which ever occurs first. The emission unit shall be initially fired on natural gas. When the emission unit reaches approximately 10% load, or the minimum capacity of one coal mill, coal will be introduced in combination with natural gas for stabilization until the boiler load reaches approximately 25%. Once the emission unit reaches approximately 25% load, a second coal mill will be introduced in combination with continued natural gas for stabilization until the boiler load reaches approximately 35%. Once the emission unit reaches approximately 35% load, natural gas fuel will be reduced until stable operation on two coal mills is established, at which time the natural gas fuel will be discontinued and the boiler load will be increased while firing coal, with addition of coal mills as necessary, until the completion of startup. The startup period ends when the boiler reaches its minimum safe stable load. Minimum safe stable load shall be defined as that operating condition when two coal mills are in service, stabilizing natural gas fuel has been discontinued, and the emission control devices have reached their effective operating conditions as defined in the work practice standards below.

During startup, the following work practice standards shall be followed for the air pollution control equipment:

- The baghouse shall be used at all times.
  - The WFGD system shall be used at all times when firing coal.
  - The SCR system shall begin operation and ammonia shall be injected when the SCR system reaches an operating temperature of 600 °F.
  - The halogenated PAC injection system shall be used at all times when firing coal.
  - The SO<sub>3</sub> sorbent injection system shall be used at all times when firing coal.
  - Good Combustion Practices shall be used at all times during startup.
- *Shutdown:*

Shutdown of the emission unit from full load requires approximately 4 hours to complete. Shutdown BACT work practice standards contained herein are applicable to this emission unit until the completion of shutdown. The shutdown period begins when the boiler reaches its minimum safe stable load and stabilizing natural gas is introduced as previously defined under startup.

During shutdown, the following work practice standards shall be followed for the air pollution control equipment:

- The baghouse shall be used at all times.
- The WFGD system shall be used at all times when firing coal.
- The SO<sub>3</sub> sorbent injection system shall be used at all times when firing coal.
- The SCR system operation and ammonia injection shall not be discontinued until the SCR system reaches an operating temperature of less than 600 °F.
- The halogenated PAC injection system shall be used at all times when firing coal.
- Good Combustion Practices shall be used at all times during shutdown.
- *Malfunction:*

During malfunction, the work practice standards shall be followed for the emission unit and its air pollution control equipment as stated in 467 IAC 24.1(4).

We wanted EPA's opinion as to whether or not the language was sufficient or if there are other changes that we should make.

Thanks,  
Chris

Christopher A. Roling, PE  
Environmental Engineer Senior  
Air Quality Bureau, IDNR  
ph: 515-242-6002  
fax: 515-242-5094

## **Roling, Chris [DNR]**

---

**From:** Knodel.Jon@epamail.epa.gov  
**Sent:** Thursday, November 06, 2008 9:15 AM  
**To:** Roling, Chris [DNR]; Webber.Robert@epamail.epa.gov  
**Subject:** Coal plant invests in emission reduction technology

Chris,

Thanks for the update.

Jon

"Roling, Chris  
[DNR]"  
<Chris.Roling@dn  
r.iowa.gov> To  
Jon Knodel/R7/USEPA/US@EPA  
cc  
11/06/2008 08:15 AM  
"Phelps, Dave [DNR]"  
<Dave.Phelps@dnr.iowa.gov>,  
"Smith, Gary [DNR]"  
<Gary.Smith@dnr.iowa.gov>, "Book,  
Kelli [DNR]"  
<Kelli.Book@dnr.iowa.gov>  
Subject  
RE: Coal plant invests in  
emission reduction technology

Jon,

Here is the scoop on the IPL article and the changes they are doing. As I mentioned earlier Gary had a project last year that was actually issued in January of 2008 for Boiler 3. IPL proposed to install SNCR and overfire air to reduce NOx. The estimated reduction was 62% for NOx on Unit 3. Due to improvements being made to their combustion controls CO emissions were also estimated to be decreased.

Since there was no increase in emissions the project did not have to go through PSD.

The article did not have much on information, but it is a little deceiving when it says some pollutants would be reduced by up to 60%. It sounds like the plant is reducing that much when it is actually just one unit that will have reductions.

Chris

Christopher A. Roling, PE

Environmental Engineer Senior  
Air Quality Bureau, IDNR  
ph: 515-242-6002  
fax: 515-242-5094

-----Original Message-----

From: Knodel.Jon@epamail.epa.gov [mailto:Knodel.Jon@epamail.epa.gov]  
Sent: Thursday, November 06, 2008 7:28 AM  
To: Roling, Chris [DNR]  
Subject: RE: Coal plant invests in emission reduction technology

Chris,

Thanks for the quick reply. The only projects we show in our PSD spreadsheet for Sutherland are a 2003 LNB project and the current Unit 4 application. If you hear any more, please pass along.

Thanks...

Jon

"Roling, Chris [DNR]" <Chris.Roling@dn r.iowa.gov>	Jon Knodel/R7/USEPA/US@EPA	To
11/06/2008 07:03 AM	"Phelps, Dave [DNR]" <Dave.Phelps@dnr.iowa.gov>	cc
	RE: Coal plant invests in emission reduction technology	Subject

Dave and I were talking about this just yesterday. We are pretty sure it is NOx control that Gary permitted last year. I am going to check our records today and talk to Gary as Dave and I think some of the numbers seem a little high.

Chris

Christopher A. Roling, PE  
Environmental Engineer Senior  
Air Quality Bureau, IDNR  
ph: 515-242-6002  
fax: 515-242-5094

-----Original Message-----

From: Knodel.Jon@epamail.epa.gov [mailto:Knodel.Jon@epamail.epa.gov]  
Sent: Thursday, November 06, 2008 7:09 AM  
To: Roling, Chris [DNR]  
Subject: Coal plant invests in emission reduction technology

Chris,

Do you know what type of control technology Alliant is installing at Sutherland? Which unit(s)?

Jon

### Coal plant invests in emission reduction technology

MARSHALLTOWN, Iowa (AP) - Interstate Power and Light Co. says it's moving forward with a \$30 million investment to reduce emissions at the Sutherland Generating Station in central Iowa. The plant, located in Marshalltown, is a 143 megawatt coal-fired facility that produces enough energy to power about 143,000 homes.

Company officials say construction began in August to install technologies that could reduce some emissions up to 60%. They estimate that the peak work force will reach up to 300 workers.

Interstate Power and Light is a subsidiary of Alliant Energy Corp.

## **Roling, Chris [DNR]**

---

**From:** Roling, Chris [DNR]  
**Sent:** Thursday, November 06, 2008 8:16 AM  
**To:** Knodel.Jon@epamail.epa.gov  
**Cc:** Phelps, Dave [DNR]; Smith, Gary [DNR]; Book, Kelli [DNR]  
**Subject:** RE: Coal plant invests in emission reduction technology

Jon,

Here is the scoop on the IPL article and the changes they are doing. As I mentioned earlier Gary had a project last year that was actually issued in January of 2008 for Boiler 3. IPL proposed to install SNCR and overfire air to reduce NOx. The estimated reduction was 62% for NOx on Unit 3. Due to improvements being made to their combustion controls CO emissions were also estimated to be decreased.

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Environmental Engineer Senior  
Air Quality Bureau, IDNR  
ph: 515-242-6002  
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To: Roling, Chris [DNR]  
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"Roling, Chris  
[DNR]"  
<Chris.Roling@dn  
r.iowa.gov>

11/06/2008 07:03  
AM

Jon Knodel/R7/USEPA/US@EPA

"Phelps, Dave [DNR]"  
<[Dave.Phelps@dnr.iowa.gov](mailto:Dave.Phelps@dnr.iowa.gov)>

To

cc

RE: Coal plant invests in Subject  
emission reduction technology

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ph: 515-242-6002  
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Sent: Thursday, November 06, 2008 7:09 AM  
To: Roling, Chris [DNR]  
Subject: Coal plant invests in emission reduction technology

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MARSHALLTOWN, Iowa (AP) - Interstate Power and Light Co. says it's moving forward with a \$30 million investment to reduce emissions at the Sutherland Generating Station in central Iowa. The plant, located in Marshalltown, is a 143 megawatt coal-fired facility that produces enough energy to power about 143,000 homes.

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## Roling, Chris [DNR]

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**Sent:** Thursday, November 06, 2008 7:28 AM  
**To:** Roling, Chris [DNR]  
**Subject:** RE: Coal plant invests in emission reduction technology

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"Roling, Chris [DNR]" <Chris.Roling@dn r.iowa.gov>	Jon Knodel/R7/USEPA/US@EPA	To
11/06/2008 07:03 AM	"Phelps, Dave [DNR]" <Dave.Phelps@dnr.iowa.gov>	cc
	RE: Coal plant invests in emission reduction technology	Subject

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ph: 515-242-6002  
fax: 515-242-5094

-----Original Message-----

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**Sent:** Thursday, November 06, 2008 7:09 AM  
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**Subject:** Coal plant invests in emission reduction technology

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Interstate Power and Light is a subsidiary of Alliant Energy Corp.

## **Roling, Chris [DNR]**

---

**From:** Roling, Chris [DNR]  
**Sent:** Thursday, November 06, 2008 7:04 AM  
**To:** Knodel.Jon@epamail.epa.gov  
**Cc:** Phelps, Dave [DNR]  
**Subject:** RE: Coal plant invests in emission reduction technology

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Christopher A. Roling, PE  
Environmental Engineer Senior  
Air Quality Bureau, IDNR  
ph: 515-242-6002  
fax: 515-242-5094

-----Original Message-----

**From:** Knodel.Jon@epamail.epa.gov [mailto:Knodel.Jon@epamail.epa.gov]  
**Sent:** Thursday, November 06, 2008 7:09 AM  
**To:** Roling, Chris [DNR]  
**Subject:** Coal plant invests in emission reduction technology

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**Roling, Chris [DNR]**

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**From:** Knodel.Jon@epamail.epa.gov  
**Sent:** Thursday, November 06, 2008 7:09 AM  
**To:** Roling, Chris [DNR]  
**Subject:** Coal plant invests in emission reduction technology

Chris,

Do you know what type of control technology Alliant is installing at Sutherland? Which unit(s)?

Jon

Coal plant invests in emission reduction technology

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Company officials say construction began in August to install technologies that could reduce some emissions up to 60%. They estimate that the peak work force will reach up to 300 workers.

Interstate Power and Light is a subsidiary of Alliant Energy Corp.

# KCCI.com

## Coal Plant Invests In Emission Reduction

POSTED: 11:42 am CST November 5, 2008

UPDATED: 11:44 am CST November 5, 2008

Interstate Power and Light Co. says it's moving forward with a \$30 million investment to reduce emissions at the Sutherland Generating Station in central Iowa.

The plant, located in Marshalltown, is a 143 megawatt coal-fired facility that produces enough energy to power about 143,000 homes.

Company officials say construction began in August to install technologies that could reduce some emissions up to 60 percent. They estimate that the peak work force will reach up to 300 workers.

Interstate Power and Light is a subsidiary of Alliant Energy Corp.

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R. SERIES / Initials \_\_\_\_\_  
FACILITY ID \_\_\_\_\_  
IOWA ACT / Doc Code \_\_\_\_\_

**STATE OF IOWA**

CHESTER J. CULVER, GOVERNOR  
PATTY JUDGE, LT. GOVERNOR

**DEPARTMENT OF NATURAL RESOURCES**  
RICHARD A. LEOPOLD, DIRECTOR

7007071000054748189

September 29, 2008

**CERTIFIED MAIL**

Mark Smith  
EPA Region VII  
901 N. 5<sup>th</sup> St.  
Kansas City, KS 66101

Re: Plant Number 64-01-012, Project Number 07-602, PSD application for IPL-Sutherland Generating Station.

Dear Mr. Smith:

In November of 2007 the Department sent a copy of the IPL-Sutherland Generating Station PSD application to EPA Region VII. Then in April of 2008 the Department sent two (2) discs to EPA with additional information that was submitted by IPL. Recently, IPL submitted more additional information for the Sutherland PSD project. Attached to this letter is a disc containing the additional information recently submitted by IPL.

I am the engineer assigned to the project so if you have any questions, feel free to contact me by phone at (515) 242-6002 or by email at [chris.roling@dnr.iowa.gov](mailto:chris.roling@dnr.iowa.gov).

Sincerely,

Christopher A. Roling, PE  
Environmental Engineer Senior  
Air Quality Bureau, IDNR

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

MARK SMITH  
 EPA REGION VII  
 901 N 5<sup>TH</sup> ST  
 KANSAS CITY KS 66101

2. Article Number  
*(Transfer from service label)*

**COMPLETE THIS SECTION ON DELIVERY**

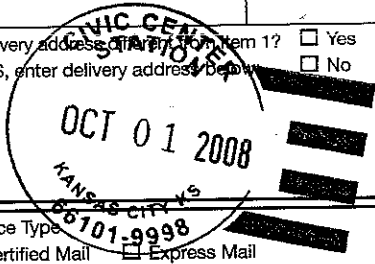
A. Signature  Agent  
*X Louis Clearman*  Addressee

B. Received by (*Printed Name*) C. Date of Delivery

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below  No

3. Service Type  Express Mail  
 Certified Mail  Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (*Extra Fee*)  Yes



7007 0710 0000 5474 8189



R. SERIES / Initials \_\_\_\_\_  
FACILITY ID \_\_\_\_\_  
WK ACT / Doc Code \_\_\_\_\_

**STATE OF IOWA**

CHESTER J. CULVER, GOVERNOR  
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
RICHARD A. LEOPOLD, DIRECTOR

7005311000006013036

June 6, 2008

CERTIFIED MAIL

Mark Smith  
EPA Region VII  
901 N. 5<sup>th</sup> St.  
Kansas City, KS 66101

Re: Plant Number 64-01-012, Project Number 07-602, PSD application for IPL-Sutherland Generating Station.

Dear Mr. Smith:

In November of 2007 the Department sent a copy of the IPL-Sutherland Generating Station PSD application to EPA Region VII. IPL has recently submitted its 112(g) Case-by-Case MACT analysis. Attached is a copy of their analysis for your review.

If you have any questions, feel free to contact me by phone at (515) 242-6002 or by email at [chris.roling@dnr.iowa.gov](mailto:chris.roling@dnr.iowa.gov).

Sincerely,

Christopher A. Roling, PE  
Environmental Engineer Senior  
Air Quality Bureau, IDNR

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

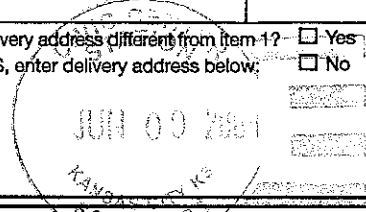
MARK SMITH  
EPA REGION VII  
901 N 5<sup>TH</sup> ST  
KANSAS CITY KS 66101

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  
*Mark Smith*  Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1?  Yes  
If YES, enter delivery address below:  No



3. Service Type *03701-9999*  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

2. Article Number  
(Transfer from service label)

7005 3110 0000 0601 3036

**Roling, Chris [DNR]**

---

**From:** Roling, Chris [DNR]  
**Sent:** Friday, June 06, 2008 8:40 AM  
**To:** Knodel.Jon@epamail.epa.gov; Webber.Robert@epamail.epa.gov;  
smith.marka@epamail.epa.gov  
**Subject:** IPL 112(g) analysis

Just a heads up that I put IPL's 112(g) analysis in the mail today. Also, I will be sending the LS Power (Elk Run Energy) application your way in the next couple of days as they just resubmitted.

Let me know if you have any questions,  
Chris

Christopher A. Roling, PE  
Environmental Engineer Senior  
Air Quality Bureau, IDNR  
ph: 515-242-6002  
fax: 515-242-5094

## **Roling, Chris [DNR]**

---

**From:** Roling, Chris [DNR]  
**Sent:** Monday, April 21, 2008 10:35 AM  
**To:** Webber.Robert@epamail.epa.gov; Knodel.Jon@epamail.epa.gov  
**Subject:** IPL - Sutherland Informational meeting  
**Attachments:**

Jon & Bob:

We are having an informational meeting in Marshalltown in May to explain the Air Quality Program and the permitting process in regards to the IPL-Sutherland project. Here is a copy of the notice that is being sent.

Chris

Christopher A. Roling, PE  
Environmental Engineer Senior  
Air Quality Bureau, IDNR  
ph: 515-242-6002  
fax: 515-242-5094



R. SERIES / Initials \_\_\_\_\_  
FACILITY ID \_\_\_\_\_  
WK ACT / Doc Code \_\_\_\_\_

## STATE OF IOWA

CHESTER J. CULVER, GOVERNOR  
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
RICHARD A. LEOPOLD, DIRECTOR

70058119000006008537

April 8, 2008

**CERTIFIED MAIL**

Mark Smith  
EPA Region VII  
901 N. 5<sup>th</sup> St.  
Kansas City, KS 66101

Re: Plant Number 64-01-012, Project Number 07-602, PSD application for IPL-Sutherland Generating Station.

Dear Mr. Smith:

In November of 2007 the Department sent a copy of the IPL-Sutherland Generating Station PSD application to EPA Region VII. Over the last few months the Department has requested information and IPL has also made a design change associated with the project. Due to the design change and the Department's requests, IPL has submitted an addendum to their application. Attached to this letter are two (2) discs. One disc has all of the updated information and the second disc has the updated modeling files.

I am the engineer assigned to the project so if you have any questions, feel free to contact me by phone at (515) 242-6002 or by email at [chris.roling@dnr.iowa.gov](mailto:chris.roling@dnr.iowa.gov).

Sincerely,

Christopher A. Roling, PE  
Environmental Engineer Senior  
Air Quality Bureau, IDNR

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

MARK SMITH  
EPA REGION VII  
901 N 5<sup>TH</sup> ST  
KANSAS CITY KS 66101

2. Article Number  
(Transfer from service label)

7005 3110 0000 0600 8537

PS Form 3811, February 2004

Domestic Return Receipt

Rolling

102595-02-M-1540

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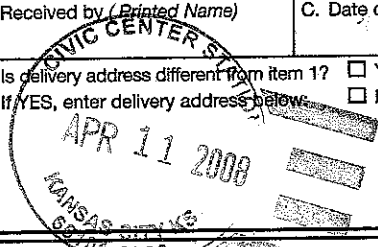
A. Signature  Agent  
*x Louis Clearman*  Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1?  Yes  
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 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes



**Roling, Chris [DNR]**

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**From:** Roling, Chris [DNR]  
**Sent:** Friday, January 11, 2008 10:32 AM  
**To:** Knodel.Jon@epamail.epa.gov; Webber.Robert@epamail.epa.gov  
**Subject:** IPL  
**Attachments:** Info request 1\_12.19.07.doc

Bob & Jon,

I could not remember if I sent you a copy of the first request for information I sent so here is a copy of the letter.

Chris

Christopher A. Roling, PE  
Environmental Engineer Senior  
Air Quality Bureau, IDNR  
ph: 515-242-6002  
fax: 515-242-5094



# STATE OF IOWA

CHESTER J. CULVER, GOVERNOR  
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
RICHARD A. LEOPOLD, DIRECTOR

November 2, 2007

**CERTIFIED MAIL**

JoAnn Heiman  
EPA Region VII  
901 N. 5<sup>th</sup> St.  
Kansas City, KS 66101

Re: Plant Number 64-01-012, Project Number 07-602, PSD application for IPL-Sutherland Generating Station.

Dear Ms Heiman:

Enclosed is a copy of the Prevention of Significant Deterioration (PSD) permit application for new coal-fired utility boiler (Unit 4) at the Interstate Power and Light Company (IPL) Sutherland Station in Marshalltown, Iowa. The pre application meeting for this project was held on September 24, 2007.

I am the engineer assigned to the project so if you have any questions, feel free to contact me by phone at (515) 242-6002 or by email at [chris.roling@dnr.iowa.gov](mailto:chris.roling@dnr.iowa.gov).

Sincerely,

A handwritten signature in cursive script that reads "Christopher A. Roling".

Christopher A. Roling, PE  
Environmental Engineer Senior  
Air Quality Bureau, IDNR

**Roling, Chris [DNR]**

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**From:** Webber.Robert@epamail.epa.gov  
**Sent:** Friday, November 02, 2007 10:01 AM  
**To:** Roling, Chris [DNR]  
**Cc:** Phelps, Dave [DNR]; Heiman.JoAnn@epamail.epa.gov; Knodel.Jon@epamail.epa.gov; Smith.Marka@epamail.epa.gov  
**Subject:** Re: IPL - Marshalltown

Chris,

During the GPC pre-application meeting on Wednesday Dave had mentioned the anticipated Sutherland permit application submittal as one reason you would not have the lead for the GPC project. Thanks for the update.

Bob Webber

"Roling, Chris  
[DNR]"  
<Chris.Roling@dn  
r.iowa.gov>  
11/02/07 09:42  
AM

To  
Jon Knodel/ARTD/R7/USEPA/US@EPA,  
JoAnn  
Heiman/ARTD/R7/USEPA/US@EPA,  
Robert  
Webber/ARTD/R7/USEPA/US@EPA

cc  
"Phelps, Dave [DNR]"  
<Dave.Phelps@dnr.iowa.gov>

Subject  
IPL - Marshalltown

Just wanted to give you all a heads up that we received the Sutherland (IPL - Marshalltown) PSD permit application yesterday. I will be mailing a copy of it to EPA later today so you should receive it sometime next week.

Chris

Christopher A. Roling, PE  
Environmental Engineer Senior  
Air Quality Bureau  
ph: 515-242-6002  
fax: 515-242-5094

**Roling, Chris [DNR]**

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**From:** Roling, Chris [DNR]  
**Sent:** Friday, November 02, 2007 9:43 AM  
**To:** Knodel.Jon@epamail.epa.gov; Heiman.JoAnn@epamail.epa.gov;  
Webber.Robert@epamail.epa.gov  
**Cc:** Phelps, Dave [DNR]  
**Subject:** IPL - Marshalltown

Just wanted to give you all a heads up that we received the Sutherland (IPL – Marshalltown) PSD permit application yesterday. I will be mailing a copy of it to EPA later today so you should receive it sometime next week.

Chris

Christopher A. Roling, PE  
Environmental Engineer Senior  
Air Quality Bureau  
ph: 515-242-6002  
fax: 515-242-5094