

#### **UNITED STATES POSTAL SERVICE**

June 21, 2013

Mr. Brian Carley Michigan DEQ – Air Quality Division Jackson District Office 301 East Louis Glick Highway Jackson, MI 49246

Subject:

We Energies Phase II  $NO_x$  Compliance and  $NO_x$  Averaging Plans for Calendar Years 2014 through 2018.

Dear Mr. Carley:

Wisconsin Electric Power Company, doing business as We Energies, respectfully submits an Acid Rain Program Phase II NO<sub>x</sub> compliance plan for calendar years 2014 through 2018.

The enclosed Phase II NO<sub>x</sub> compliance plans indicate that We Energies elects emission averaging under 40 CFR 76.11 as the Phase II compliance option for the following facilities:

- South Oak Creek Power Plant (ORIS Code 4140)
- Valley Power Plant (ORIS Code 4042)
- Pleasant Prairie Power Plant (ORIS Code 6170)
- Presque Isle Power Plant (ORIS Code 1769)

40 CFR 72.40(b)(2) requires that a compliance plan, which includes units in more than one state, shall be final only after every permitting authority with jurisdiction over any such unit has approved the plan with the same modifications or conditions, if any. Therefore, we request that you work with Mr. Bill Baumann of Wisconsin DNR [(608) 267-7542] to approve the Phase II NO<sub>x</sub> compliance plan and NO<sub>x</sub> averaging plan.

Please contact me at (414) 221-5441 if you have any questions or require additional information.

Sincerely,

Robert A. Greco, P.E. Designated Representative

cc: U.S. Environmental Protection Agency – Clean Air Markets Division (6204J)

Bill Baumann – Wisconsin Department of Natural Resources

Tom Zelinski - Wisconsin Department of Natural Resources

Dan Adams – We Energies

Brenda Bergemann – We Energies

Sharon Cameli - We Energies

Ricardo Christian – We Energies/PPPP Plant File: 062,78.02

Harry Dahm – We Energies

Jose Gonzalez - We Energies

Les Kowalski – We Energies

Susan Martin - We Energies

Lori Peterson - We Energies/VAPP Plant File: 064.78.02

Bruce Ramme – We Energies

Semyon Relin – We Energies/OCPP Plant File: 068.78.02

Steve Stretchberry – We Energies

Claire Twohey - We Energies/PIPP Plant File: 071.78.02

Tom Ventimiglia – We Energies

Raul Villarreal - We Energies



## Phase II NO<sub>x</sub> Averaging Plan

For more information, see instructions and refer to 40 CFR 76.11

Page 1

This submission is: 

New 
Revised

Page 1 of 3

#### STEP 1

Identify the units participating in this averaging plan by plant name, State, and boiler ID# from NADB. In column (a), fill in each unit's applicable emission limitation from 40 CFR 76.5, 76.6, or 76.7. in column (b), assign an alternative contemporaneous annual emissions limitation (ACEL) in lb/mmBtu to each unit. in column (c), assign an annual heat input limitation in mmBtu to each unit. Continue to page 3 if necessary.

			(a) Emission	(b)	(c)
Plant Name	State	ID#	Limitation	ACEL	Annual Heat Input Limit
Pleasant Prairie	WI	1	0.46	0.10	58,100,000
Pleasant Prairie	WI	2	0.46	0.10	56,300,000
South Oak Creek	WI	5	0.50	0.099	15,000,000
South Oak Creek	WI	6	0.50	0.099	15,500,000
South Oak Creek	WI	7	0.45	0.099	19,100,000
South Oak Creek	WI	8	0.45	0.099	19,000,000
Valley	WI	1	0.50	0.45	8,800,000
Valley	WI	2	0.50	0.45	8,800,000
Valley	WI	3	0.50	0.45	8,300,000

#### STEP 2

Use the formula to enter the Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan and the Btu-weighted annual average emission rate for the same units if they are operated in compliance with 40 CFR 76.5, 76.6, or 76.7. The former must be less than or equal to the latter.

Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan

0.21

$$\frac{\sum_{i=1}^{n} (R_{ii} \times HI_{i})}{\sum_{i=1}^{n} HI_{i}}$$

Btu-weighted annual average emission rate for same units operated in compliance with 40 CFR 76.5, 76.6 or 76.7

0.47

$$\frac{\sum_{i=1}^{n} [R_{ii} \times HI_{i}]}{\sum_{i=1}^{n} HI_{i}}$$

Where.

 $R_{\rm B}$ 

Alternative contemporaneous annual emission limitation for unit i, in  $R_{Li}$ lb/mmBtu, as specified in column (b) of Step 1:

≤

≤

Applicable emission limitation for unit i, in lb/mmBtu, as specified in column (a) of Step 1;

Annual heat input for unit i, in mmBtu, as specified in column (c) of  $HI_i$ = Step 1;

Number of units in the averaging plan n =

	Plant Name (from Step 1) Pleasant Prairie NO <sub>x</sub> Averaging - Page 2						
STEP 3	▼ This plan is effective for calendar year2014 through calendar year2018						
Mark one of the two options and enter dates.	unless notification to terminate the plan is given.						
	☐ Treat this plan as ☐ identical plans, each effective for one calendar year for the following calendar years:,, and unless notification to terminate one or more of these plans is given.						
STEP 4	Special Provisions						
Read the special provisions and certification, enter the name of the designated	Emission Limitations  Each affected unit in an approved averaging plan is in compliance with the Acid Rain emission limitation for NO <sub>x</sub> under the plan only if the following requirements are met:						
representative, and sign and date.	(i) For each unit, the unit's actual annual average emission rate for the calendar year, in lb/mmBtu, is less than or equal to its alternative contemporaneous annual emission limitation in the averaging plan, and (a) For each unit with an alternative contemporaneous emission limitation less stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year does not exceed the annual heat input limit in the averaging plan, (b) For each unit with an alternative contemporaneous emission limitation more stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year is not less than the annual heat input limit in the averaging plan, or (ii) If one or more of the units does not meet the requirements of (i), the designated representative shall demonstrate, in accordance with 40 CFR 76.11(d)(1)(ii)(A) and (B), that the actual Btu-weighted annual average emission rate for the units in the plan is less than or equal to the Btu-weighted annual average rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations in 40 CFR 76.5, 76.6, or 76.7.  (iii) If there is a successful group showing of compliance under 40 CFR 76.11(d)(1)(ii)(A) and (B) for a calendar year, then all units in the averaging plan shall be deemed to be in compliance for that year with their alternative contemporaneous emission limitations and annual heat input limits under (i).						
	Liability  The owners and operators of a unit governed by an approved averaging plan shall be liable for any violation of the plan or this section at that unit or any other unit in the plan, including liability for fulfilling the obligations specified in part 77 of this chapter and sections 113 and 411 of the Act.						
	<u>Termination</u>						
	The designated representative may submit a notification to terminate an approved averaging plan, in accordance with 40 CFR 72.40(d), no later than October 1 of the calendar year for which the plan is to be terminated.						
	Certification						
	I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.						
	Name Robert A. Greco						

Date 6-21-13

Plant Name (from Step 1)

NO<sub>x</sub> Averaging - Page 3

(a)

(b)

(c)

STEP 1 Continue the identification of units from Step 1, page 1, here.

_Plant Name	State	lD#	Emission Limitation	Alt. Contemp. Emission Limitation	Annual Heat Input Limit
Valley	WI	4	0.50	0.45	8,300,000
Presque Isle	МІ	5	0.46	0.50	5,600,000
Presque Isle	MI	6	0.46	0.50	5,600,000
Presque Isle	MI	7	0.46	0.52	8,100,000
Presque Isle	MI	8	0.46	0.52	8,200,000
Presque Isle	МІ	9	0.46	0.52	8,000,000
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United Coxes Environmental Protection Agency Acid Rain Program

OMB No. 2060-0258 Approval expires 11/30/2012

Page 1 of 2

### Phase II NO<sub>x</sub> Compliance Plan

For more information, see instructions and refer to 40 CFR 76.9

This submission is: X New Revised STEP 1 Presque Isle Power Plant MΙ 1769 Indicate plant name, State, and ORIS code from NADB, Plant Name State **ORIS Code** if applicable STEP 2 Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable. Indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wall-fired, "T" for tangentially fired, "V" for vertically fired, and "WB" for wet bottom. Indicate the compliance option selected for each unit. 5 6 7 8 9 ID# ID# ID# ID# D# ID# <sub>Туре</sub> DBW Type DBW <sub>Type</sub> DBW <sub>Type</sub> DBW  $_{_{\overline{\text{Type}}}}\mathsf{DBW}$ Туре (a) Standard annual average emission limitation of 0.50 lb/mmBtu (for Phase I dry bottom wall-fired boilers) (b) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase I tangentially fired bollers) (c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07 (also indicate above emission limit specified in plan) (d) Standard annual average emission limitation of 0.46 lb/mmBtu (for Phase Il dry bottom wall-fired bollers) (e) Standard annual average emission limitation of 0.40 lb/mmBtu (for Phase il tangentially fired boilers) (f) Standard annual average emission limitation of 0.68 lb/mmBtu (for cell burner boilers) (g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers) (h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers) (i) Standard annual average emission limitation of 0.84 lb/mmBtu (for wet bottom boilers) (j) NO<sub>x</sub> Averaging Plan (include NO<sub>x</sub> Averaging form) (k) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack) (I) Common stack pursuant to 40 CFR 75.17(a)(2)(l)(B) with NO<sub>x</sub> Averaging (check the NOx Averaging Plan box and include NO<sub>x</sub> Averaging form)

	Plant Name (from	NO <sub>x</sub> Co Page	mpliance - Page 2			
STEP 2, cont'd.	<sub>ID#</sub> 5 <sub>Type</sub> DBW	<sub>ID#</sub> 6 <sub>Type</sub> DBW	<sub>ID#</sub> 7 <sub>Type</sub> DBW	ID# 8 Type DBW	<sub>ID#</sub> 9 <sub>Type</sub> DBW	ID#
(m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17(a)(2)(i)(C), (a)(2)(iii)(B), or (b)(2)						
(n) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)						
(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing						
(p) Repowering extension plan approved or under review						

STEP 3
Read the standard
requirements and
certification, enter the
name of the designated
representative, sign &

#### Standard Requirements

General. This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)). These requirements are listed in this source's Acid Rain Permit.

#### Special Provisions for Early Election Units

Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for  $NO_x$  as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(iii).

<u>Liability</u>. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.

Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO<sub>x</sub> for Phase II units with Group 1 boilers under 40 CFR 76.7.

#### Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Robert A. Gr	eco /			
Signature W	flan	Date	6-21-13	



# STATE OF MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY JACKSON DISTRICT OFFICE



DAN WYANT DIRECTOR

July 30, 2013

Mr. Robert Greco We Energies 231 West Michigan Street Milwaukee, Wisconsin 53203

Dear Mr. Greco:

SUBJECT: Phase II NOx Averaging Plan for Presque Isle Power Plant

This letter is in reference to the Phase II NOx Averaging Plan dated June 21, 2013, submitted for Presque Isle, Pleasant Prairie (WI), South Oak Creek (WI), and Valley (WI) power plants. In accordance with 40 CFR 72.40(b)(2), approval of the averaging plan that includes units in more than one state shall be final only when every permitting authority with jurisdiction over any such unit has also approved this averaging plan. Pursuant to 40 CFR 76.11, the Department of Environmental Quality, Air Quality Division (AQD) has reviewed and approved the Phase II NOx Averaging Plan for calendar years 2014 through 2018.

Please note that once all permitting authorities have approved the submitted Phase II NOx Averaging Plan, you must request either a permit modification or a fast track modification per 40 CFR Part 72, Subpart H to revise the Presque Isle Power Plant's Acid Rain Permit No. MI-AR-1769-2013. You will also need to submit a significant modification request at the same time to modify the Presque Isle Power Plant's ROP No. MI-ROP-B4261-2013 to incorporate the revised Acid Rain Permit, which can be done concurrently with the modification of the Acid Rain permit. If you have questions concerning this approval and the requirements associated with this approval, please feel free to contact me at either 517-780-7843 or carleyb@michigan.gov.

Sincerely,

Brian Carley

**Environmental Quality Specialist** 

Air Quality Division 517-780-7843

cc: Chr

Chris Hare, AQD Ed Lancaster, AQD Thomas Zelinski, WDNR Beth Valenziano, EPA Region V State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee Wi 53212-3128

Scott Walker, Governor Cathy Stepp, Secretary Telephone 608-266-2621 Toll Free 1-888-936-7463 TTY Access via relay - 711



July 3, 2013

Robert Greco Designated Representative We Energies 231 W. Michigan Street Milwaukee, WI 53203



Subject: Phase II NOx Averaging Plan for Pleasant Prairie, South Oak Creek, and Valley Power Plants

Dear Mr. Greco:

The Department has reviewed your Phase II NO<sub>x</sub> averaging plan dated June 21, 2013, for Pleasant Prairie, South Oak Creek, Valley, and Presque Isle (MI) power plants. Your plan submittal meets the applicable requirements of s. NR 409.065(7) (b) and (c), Wis. Adm. Code. Therefore, the Department approves your Phase II NO<sub>x</sub> averaging plan for calendar years 2014 through 2018. Since this is a multi-state averaging plan, the approval is not final until the State of Michigan Department of Environmental Quality has also approved the averaging plan.

As provided under s. NR 409.065(7), Wis. Adm. Code, in lieu of complying with the applicable emission limitation in s. NR 409.065 (2), (3) or (4), Wis. Adm. Code (40 CFR § 76.5, 76.6 or 76.7), any affected units subject to such emission limitation, under control of the same owner or operator, and having the same designated representative may average their  $NO_x$  emissions under an approved averaging plan.

We Energies has chosen to comply with the nitrogen oxides emission limitations in Phase II of the acid rain program by averaging the nitrogen oxides emissions from Pleasant Prairie, South Oak Creek, Valley, and Presque Isle power plants. You submitted alternative contemporaneous emission limitations and annual heat input values for each of the boilers participating in the averaging plan at Pleasant Prairie, South Oak Creek, Valley, and Presque Isle power plants. This information was used to show the Btu-weighted annual average emission rate using the alternative contemporaneous emission limitations is equal to or less than the Btu-weighted annual average emission rate using the applicable limitations from s. NR 409.065 (2), (3) or (4), Wis. Adm. Code (40 CFR § 76.5, 76.6 or 76.7). The emission limitations and heat input values are summarized in the table below.

Phase II NO. Averaging Plan for CV 2014-2018

a	ь	С	d	e	
Power Plant Name	Unit ID No.	Applicable	Alternative	Annual Heat	Input Value
		Emission	Contemporaneous	Limit (MMBtu)	
		Limitation	Emission Limitation	,	
		(pounds/MMBtu)	(pounds/MMBtu)		<u> </u>
Pleasant Prairie	1	0.46	0.10	58,100,000	Minimum
Pleasant Prairie	2	0.46	0.10	56,300,000	Minimum
South Oak Creek	5	0.50	0.099	15,000,000	Minimum
South Oak Creek	6	0.50	0.099	15,500,000	Minimum
South Oak Creek	7	0.45	0.099	19,100,000	Minimum
South Oak Creek	8	0.45	0.099	19,000,000	Minimum
Valley	1	0.50	0.45	8,800,000	Minimum



Valley	2	0.50	0.45	8,800,000	Minimum
Valley	3-	0.50	0.45	8,300,000	Minimum
Valley	4	0.50	0.45	8,300,000	Minimum
Presque Isle (MI)	5	0.46	0.50	5,600,000	Maximum
Presque Isle (MI)	6	0.46	0.50	5,600,000	Maximum
Presque Isle (MI)	7	0.46	0.52	8,100,000	Maximum
Presque Isle (MI)	8	0.46	0.52	8,200,000	Maximum
Présque Isle (MI)	9	0.46	0.52	8,000,000	Maximum

Using the data in the table above and Equation 1 from s. NR 409.065(7), Wis. Adm. Code, the Btu-weighted annual average emission rate is 0.49 pounds per million Btu using the applicable emission limitations, and 0.22 pounds per million Btu using the alternative contemporaneous emission limitations. Please note, the average emission rates presented here differ slightly from what was presented in the plan submitted (0.49 vs. 0.47 pounds per million Btu and 0.22 vs. 0.21 pounds per million Btu, respectively). The differences are small and do not change the approval granted in this letter.

$$\frac{\sum_{i=1}^{n} (R_{Li} \times HI_i)}{\sum_{i=1}^{n} HI_i} \leq \frac{\sum_{i=1}^{n} (R_{li} \times HI_i)}{\sum_{i=1}^{n} HI_i}$$
 (Equation 1)

Where:

P<sub>Li</sub> is the alternative contemporaneous annual emission limitation for unit i, in pounds per million Btu (column d of the table)

R<sub>li</sub> is the applicable emission limitation for unit i, in pounds per million Btu (column c of the table)

HI; is the annul heat input for unit i, in million Btu (column e of the table)

n is the number of units in the averaging plan

As provided under s. NR 409.065(7)(a)4., Wis. Adm. Code, the annual heat input value limits in column e of the table are either minimums or maximums depending on whether the alternative contemporaneous emission limit is more restrictive or less restrictive than the applicable emission limitation. The alternative contemporaneous emissions limitations for all units in Wisconsin are more restrictive than the applicable emission limitations under s. NR 409.065 (2) and (4), Wis. Adm. Code. The Department will include the Phase II NOx averaging plan for calendar years 2014 through 2018 in the acid rain portions of the operation permits for the three Wisconsin facilities (Pleasant Prairie, South Oak Creek, and Valley) as those permits are renewed or revised.

#### NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to §§ 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department in the manner prescribed by those statutes. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

If you have any questions or concerns regarding the approval of the above Phase II  $NO_x$  averaging plan, please contact me at (414) 263-8577.

Sincerely,

Thomas Zelinski

Air Management Engineer Milwaukee Service Center

cc. Brian Carley - Michigan DEQ – Air Quality Division Bill Baumann – Bureau of Air Management Daniel Schramm – Southeast Region Headquarters Air Rain Files – Bureau of Air Management US EPA, Region V – AE-17J