BEFORE THE ILLINOIS POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

WRB REFINING, LLC Ultralow NOx Burners for Heaters H-4 & H-5 of Catalytic Reformer No. 3	)	
	)	PCB 14-
	)	(Tax Certification - Air)
PARCEL NUMBER 19-1-08-35-00-000-001 or portion thereof	)	

NOTICE

TO: [*Electronic filing*]
John Therriault, Clerk
Illinois Pollution Control Board
State of Illinois Center
100 W. Randolph Street, Suite 11-500
Chicago, Illinois 60601

[*Service by mail*]
Michael Kemp
WRB Refining, LLC
404 Phillips Building
Bartlesville, Oklahoma 74004

[*Service by mail*]
Steve Santarelli
Illinois Department of Revenue
101 West Jefferson
P.O. Box 19033
Springfield, Illinois 62794

PLEASE TAKE NOTICE that I have today electronically filed with the Office of the Pollution Control Board the **APPEARANCE** and **RECOMMENDATION** of the Illinois Environmental Protection Agency, a paper copy of which is herewith served upon the applicant and a representative of the Illinois Department of Revenue.

Respectfully submitted by,

/s/ *Robb H. Layman*
Robb H. Layman
Assistant Counsel

Date: December 6, 2013

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276
Telephone: (217) 524-9137

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

WRB REFINING, LLC	)	
Ultralow NOx Burners for Heaters H-4 & H-5 of	)	
Catalytic Reformer No. 3	)	
	)	PCB 14-
	)	(Tax Certification - Air)
PARCEL NUMBER	)	
19-1-08-35-00-000-001 or portion thereof	)	

APPEARANCE

I hereby file my Appearance in this proceeding on behalf of the Illinois Environmental Protection Agency.

Respectfully submitted by,

/s/ Robb H. Layman
Robb H. Layman
Assistant Counsel

Date: December 6, 2013

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WRB REFINING, LLC	)	
Ultralow NOx Burners for Heaters H-4 & H-5 of	)	
Catalytic Reformer No. 3	)	
	)	PCB 14-
	)	(Tax Certification - Air)
PARCEL NUMBER	)	
19-1-08-35-00-000-001 or portion thereof	)	

RECOMMENDATION

NOW COMES the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ("Illinois EPA"), through its attorneys, and pursuant to 35 Ill. Adm. Code 125.204 of the ILLINOIS POLLUTION CONTROL BOARD'S ("Board") procedural regulations, files the Illinois EPA's Recommendation in the above-referenced request for tax certification of pollution control facilities. The Illinois EPA recommends **issuance** of a tax certification covering the subject matter of the request. In support thereof, the Illinois EPA states as follows:

1. On or about October 14, 2010, the Illinois EPA received an application and supporting information from WRB REFINING, LLC, ("WRB Refining") concerning the proposed tax certification of certain air emission sources and/or equipment located at its Wood River petroleum refinery in Madison County, Illinois. A copy of the application is attached hereto. **[Exhibit A]**.

2. The applicant's principal business address is as follows:

WRB Refining LLC
404 Phillips Building
Bartlesville, Oklahoma 74004

3. The facility address is as follows:

WRB Refining LLC
900 South Central Avenue
P.O. Box 76
Roxana, Illinois 62084

4. The subject matter of this request involves the construction and installation of Ultralow nitrous oxides ("NOx) Burners to Heaters H-4 and H-5 of the Catalytic Reformer No. 3, which was undertaken by the refinery to reduce NOx emissions in accordance with a consent decree previously entered between Conoco Phillips and the United States Environmental Protection Agency. As described in the application, the existing burners, which possess smaller flow passages for fuel gas and are lower in cost, were replaced with newer burners that will reduce NOx emissions. *See,* Exhibit A, Attachment at Section C. The new burners assure "a lower NOx formation by burning the fuel gas with a lower flame temperature," which is achieved "by staging the fuel into the burner and by inducing a flow of flue gas back into the burner." *Id.* In addition, the project included the installation of additional filtering and conditioning of fuel gas to ensure that the solid materials do not interfere with the burner ports, as well as modifications to the convection parts of the heaters themselves. *Id.* The application states that the NOx reduction project will reduce NOx emissions from the two heaters by an estimated three hundred twenty five (325) tons per year, and the project therefore prevents or reduces air pollution that would otherwise be emitted to the atmosphere.

5. Section 11-10 of the Property Tax Code, 35 ILCS 200/11-10 (2002), defines "pollution control facilities" as:

> "any system, method, construction, device or appliance appurtenant thereto, or any portion of any building or equipment, that is designed, constructed, installed or operated for the primary purpose of: (a) eliminating, preventing, or reducing air or water pollution... or (b) treating, pretreating, modifying or disposing of any potential solid, liquid, gaseous pollutant which if released without treatment, pretreatment, modification or disposal might be harmful, detrimental or offensive to human, plant or animal life, or to property."

6. Pollution control facilities are entitled to preferential tax treatment, as provided by 35 ILCS 200/11-5 (2002).

7. Based on information in the application and the primary purpose of the Ultralow NOx Burners to prevent or reduce air pollution, it is the Illinois EPA's engineering judgment that the burners and related appurtenances may be considered as "pollution control facilities" in accordance with the statutory definition and consistent with the Board's regulations at 35 Ill. Adm. Code 125.200. **[Exhibit B].** In keeping with prior recommendations in similar matters, the Illinois EPA would expect any preferential tax treatment, as determined by the Department of Revenue in separate proceedings, to address only the incremental costs associated with the Ultralow NOx Burners in relation to conventional burner systems.

8. Because the applicant's request concerning the Ultralow NOx Burners for Heaters H-4 & H-5 of the Catalytic Reformer No. 3 satisfies the aforementioned criteria, the Illinois EPA recommends that the Board **issue** the applicant's requested tax certification.

Respectfully submitted by,

/s/ *Robb H. Layman*
Robb H. Layman
Assistant Counsel

DATED: December 6, 2013

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
Telephone: (217) 524-9137

CERTIFICATE OF SERVICE

I hereby certify that on the 6th day of December, 2013, I electronically filed the following instruments entitled **NOTICE, APPEARANCE** and **RECOMMENDATION** with:

John Therriault, Clerk
Illinois Pollution Control Board
100 West Randolph Street
Suite 11-500
Chicago, Illinois 60601

and, further, that I did send a true and correct paper copy of the same foregoing instruments, by First Class Mail with postage thereon fully paid and deposited into the possession of the United States Postal Service, to:

Steve Santarelli
Illinois Department of Revenue
101 West Jefferson
P.O. Box 19033
Springfield, Illinois 62794

Michael Kemp
WRB Refining, LLC
404 Phillips Building
Bartlesville, Oklahoma 74004

/s/ Robb H. Layman
Robb H. Layman
Assistant Counsel

APPLICATION FOR CERTIFICATION (PROPERTY TAX TREATMENT)
POLLUTION CONTROL FACILITY
AIR ☒ WATER ☐

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
P. O. Box 19276, Springfield, IL 62794-9276

This Agency is authorized to request this information under Illinois Revised Statues, 1979, Chapter, 120, Section 502a-5. Disclosure of this information is voluntary. However, failure to comply could prevent your application from being processed or could result in denial of your application for certification.

FOR AGENCY USE

File No. | Date Received | Certification No. | Date

Sec. A — APPLICANT

Company Name: WRB Refining LLC	
Person Authorized to Receive Certification: Michael Kemp	Person to Contact for Additional Details: Gordon Terhune
Street Address: 404 Phillips Building	Street Address: 900 S. Central Ave., P.O. Box 76
Municipality, State & Zip Code: Bartlesville, OK 74004	Municipality, State & Zip Code: Roxana, IL 62084
Telephone Number: (918) 661-9055	Telephone Number: (618) 255-2876
Location of Facility — Quarter Section / Township / Range	Municipality / Township
Street Address: 900 S. Central Ave.	County: Madison / Book Number
Property Identification Number	Parcel Number: 19-1-08-35-00-000-001

Sec. B — MANUFACTURING OPERATIONS

Nature of Operations Conducted at the Above Location: Petroleum Refining

Water Pollution Control Construction Permit No.	Date Issued	
NPDES PERMIT No.: IL0000205	Date Issued: 04/14/04	Expiration Date: 04/14/09
Air Pollution Control Construction Permit No.: 10060028	Date Issued: 08/20/10	
Air Pollution Control Operating Permit No.: 95120306	Date Issued: 11/07/03	

Sec. C — MANUFACTURING PROCESS

Describe Unit Process

CR-3 uses precious metal catalyst and heat to convert low octane naphtha from crude and other process units into a high octane gasoline blending component. See Catalytic Reformer #3 Heater NOx Reduction Consent Decree Project attachment.

Materials Used in Process

Naphtha, Hydrogen, fuel gas, combustion air and heat

Sec. D — POLLUTION CONTROL FACILITY DESCRIPTION

Describe Pollution Abatement Control Facility

See Catalytic Reformer #3 Heater NOx Reduction Consent Decree Project attachment.

Exhibit A

Sec. E — POLLUTION CONTROL FACILITY – CONTAMINANTS / ACCOUNTING DATA

(1) Nature of Contaminants or Pollutants

Contaminant or Pollutant	Material Retained, Captured or Recovered: DESCRIPTION	DISPOSAL OR USE
NOx	Nitrogen Gas	Ultra Low NOx Burners prevent conversion of N2 to NOx. Project retains N2 and reduces NOx make.

(2) Point(s) of Waste Water Discharge

	Plans and Specifications Attached	Yes ☐	No ☒
(3)	Are contaminants (or residues) collected by the control facility?	Yes ☐	No ☒
(4)	Date installation completed 03/31/11 status of installation on date of application 60%		
(5) a.	TOTAL INSTALLED COST	$ 28,000,000.00	
b.	NET SALVAGE VALUE IF CONSIDERED REAL PROPERTY:	$ 140,000.00	
c.	PRODUCTIVE GROSS ANNUAL INCOME OF CONTROL FACILITY:	$ 0.00	
d.	PRODUCTIVE NET ANNUAL INCOME OF CONTROL FACILITY:	$ 0.00	
e.	PERCENTAGE CONTROL FACILITY BEARS TO WHOLE FACILITY VALUE:	% To Be Determined	

Sec. F — SIGNATURE

The following information is submitted in accordance with the Illinois Property Tax Code, as amended, and to the best of my knowledge, is true and correct. The facilities claimed herein are "pollution control facilities" as defined in Section 11-10 of the Illinois Property Tax Code.

Ken C. Flentje — DIRECTOR - PTRRC

Signature — Title

Sec. G — INSTRUCTIONS

INSTRUCTIONS FOR COMPILING AND FILING APPLICATION

General: Separate applications must be completed for each control facility claimed. Do not mix types (water and air). Where both air and water operations are related, file two applications. If attachments are needed, record them consecutively on an index sheet.

Sec. A	Information refers to applicant as listed in the tax records and the person to be contacted for further details or for inspection of facilities. Define facility location by street address or legal description. A plat map location is required for facilities located outside of municipal boundaries. The property identification number is required.
Sec. B	Self-explanatory. Submit copies of all permits issued by local pollution control agencies. (e.g. MSD Construction Permit)
Sec. C	Refers to manufacturing processes or materials on which pollution control facility is used.
Sec. D	Narrative description of the pollution control facility, indicating that its primary purpose is to eliminate, prevent or reduce pollution. State the type of control facility. State permit number, date, and agency issuing permit. A narrative description and a process flow diagram describing the pollution control facility. Include a listing of each major piece of equipment included in the claimed fair cash value for real property. Include an average analysis of the influent and effluent of the control facility stating the collection efficiency.
Sec. E	List air contaminants, or water pollution substances released as effluents to the manufacturing processes. List also the final disposal of any contaminants removed from the manufacturing processes. Item (1) – Refers to pollutants and contaminants removed from the process by the pollution control facility. Item (2) – Refers to water pollution but can apply to water-carried wastes from air pollution control facilities. Submit drawings, which clearly show (a) Point(s) of discharge to receiving stream, and (b) Sewers and process piping to and from the control facility. Item (3) – If the collected contaminants are disposed of other than as wastes, state the disposition of the materials, and the value in dollars reclaimed by sale or reuse of the collected substances. State the cost of reclamation and related expense. Item (4) – State the date which the pollution control facility was first placed in service and operated. If not, explain. Item (5) – This information is essential to the certification and assessment actions. This accounting data must be completed to activate project review prior to certification by this Agency.
Sec. F	Self-explanatory. Signature must be a corporate authorized signature.

Submit to:	Attention:	Attention:
Illinois EPA P.O. Box 19276 Springfield, IL 62794-9276	Al Keller Permit Section Division of Water Pollution Control	Donald E. Sutton Permit Section Division of Air Pollution Control

APPLICATION FOR CERTIFICATION (PROPERTY TAX TREATMENT)
POLLUTION CONTROL FACILITY
WRB – Wood River Refinery

Project: Catalytic Reformer #3 Heater NOx Reduction Consent Decree Project

Section C – Manufacturing Process

Process Description:

Catalytic Reformer #3 (CR-3) is a refinery unit that uses high temperature and a precious metal catalyst to upgrade naphtha into a high octane gasoline blending component and produce hydrogen as a byproduct. Feed and recycle hydrogen is heated in a furnace and sent to the first reactor. As the naphtha reacts heat is lost so the product from the first reactor is heated in a second furnace and sent to a second reactor. Second reactor product is heated in a third furnace and sent to a third and fourth reactor. The charge furnace (H-4) and second furnace (H-5) are the largest furnaces in the reactor system. Down stream of the fourth reactor products are separated. The gas (mainly hydrogen) is separated from the liquid and a portion of the gas is recycled to the front of the system and a product hydrogen portion is routed to other refinery units. The liquid is stabilized and sent to gasoline blending or the Benzene Reduction Unit.

A simplified flow diagram of CR-3 is attached.

Fuel fired furnaces produce nitrogen oxides (NOx) which is a pollutant released to the atmosphere in the furnace flue gas. NOx is formed when nitrogen and oxygen in the combustion air combine with one another at the high temperatures in a flame. Burner manufacturers have developed Ultralow NOx burners which achieve lower NOx formation by burning the fuel gas with a lower flame temperature. The lower flame temperature is achieved by staging the fuel into the burner and by inducing a flow of flue gas back into the burner. The flow passages for fuel gas in the Ultralow NOx burners are smaller than those in conventional burners. Ultralow NOx burners are more expensive than conventional burners. Also, additional filtering and conditioning of the fuel gas is required when using Ultralow NOx burners that would not be required with conventional burners. Because the heat release pattern of ULN burners differs from conventional burners, the convection sections of the existing heaters are also being modified to include process convection tubes so that proper furnace operation may be maintained. A new Continuous Emissions Monitoring System (CEMS) is also being added to the heaters.

Section D – Pollution Control Facility Description

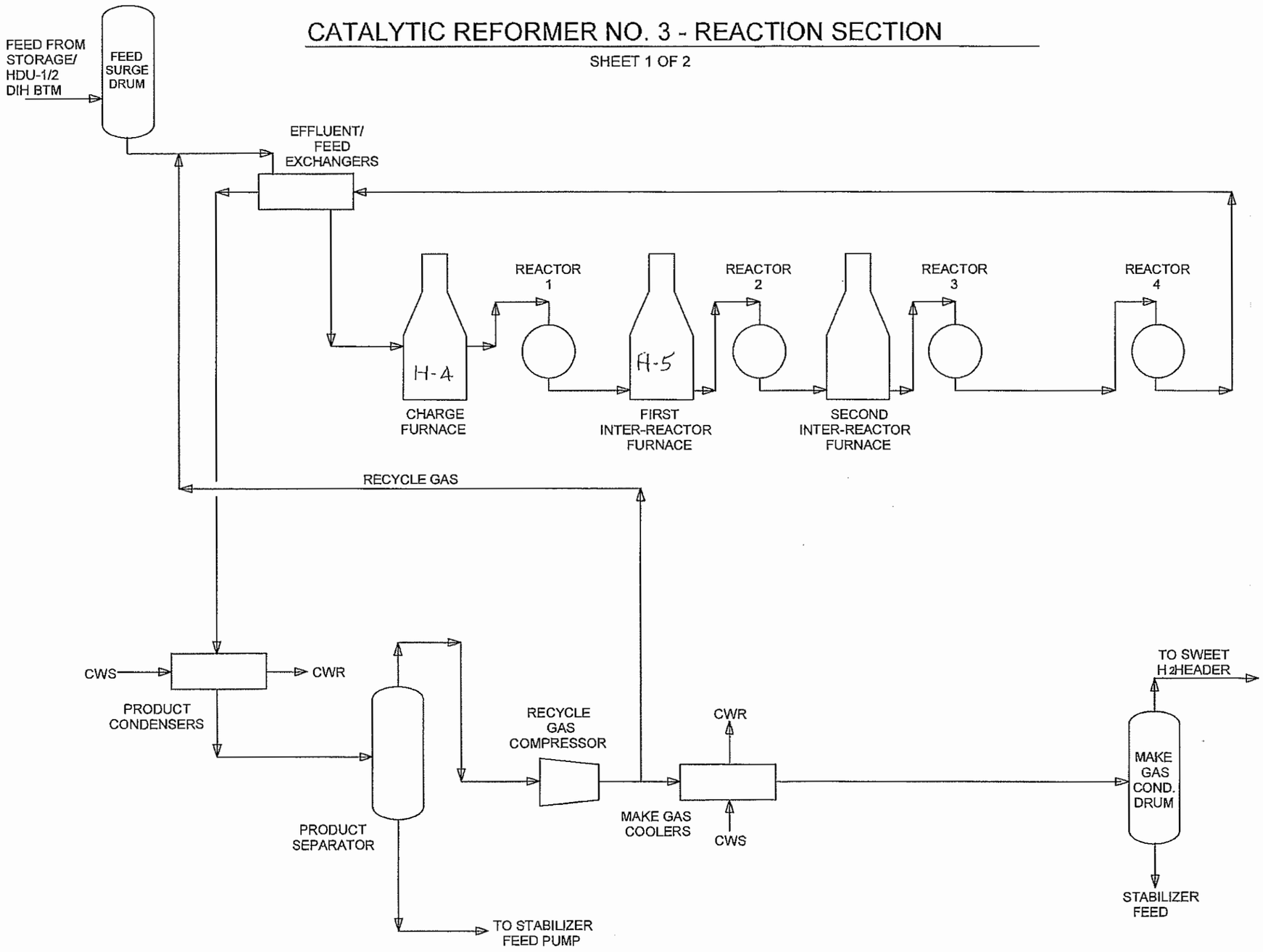
The Wood River Refinery is installing Ultralow NOx burners in the two largest heaters (H-4 and H-5) in the CR-3 Unit solely to reduce NOx pollution. The new Ultralow NOx burners replace existing conventional burners. This pollution control facility will reduce NOx emissions from these 2 heaters by 325 tons per year.

Ultralow NOx burners reduce NOx pollution by burning the fuel gas with a lower flame temperature. The lower flame temperature is achieved by staging the fuel into the burner and by inducing a flow of flue gas back into the burner. The installation of Ultralow NOx burners requires additional filtering and conditioning of the fuel gas to CR-3 and modifications of the convection section of the heaters.

The Ultralow NOx burners and the related H-4 and H-5 modifications have been installed for the sole purpose of reducing air pollution due to the emissions of NOx. The Wood River Refinery receives no financial benefit from this project.

CATALYTIC REFORMER NO. 3 - REACTION SECTION

SHEET 1 OF 2



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-2829

PAT QUINN, GOVERNOR LISA BONNETT, DIRECTOR

Memorandum

Technical Recommendation for Tax Certification Approval

Date: December 6, 2013

To: Robb Layman, Assistant Counsel

From: Jim Ross, Division Manager

Subject: WRB Refining, LLC, **TC-10-14-10**

The Illinois EPA received a request on October 14, 2010, from WRB Refining, LLC, for an Illinois EPA recommendation regarding tax certification of air pollution control facilities pursuant to 35 Ill. Adm. Code 125.204. In consultation with my staff, I approve the following recommendation:

The air pollution control facilities in this request include the following:

> Ultralow NOx Burners for Heaters H-4 and H-5 of the Catalytic Reformer No. 3, which consist of the installation of higher cost, lower-burning flame temperature burners that will act to prevent or reduce emissions of NOx emissions that would otherwise be emitted from the heaters to the atmosphere. Because the primary purpose of the burners is to prevent or reduce air pollution, and enables the source to comply with a federal consent decree, it can be certified as a pollution control facility.

This facility is located at 900 South Central Avenue, Roxana
The property identification number is Part of 19-1-08-35-00-000-001

Based on the information included in this submittal, it is the Division of Air Pollution Control's engineering judgment that the proposed facility may be considered "Pollution Control Facilities" under 35 IAC 125.200(a), with the primary purpose of preventing or reducing air pollution, or as otherwise provided in this section, and is therefore eligible for tax certification from the Illinois Pollution Control Board. Therefore, it is the Illinois EPA's recommendation that the Board issue the requested tax certification for this facility.

Exhibit B