

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD  
OF THE STATE OF ILLINOIS

WRB REFINING, LLC )  
Subpart Ja Revisions to Flares )  
)  
)  
) PCB 12-  
) (Tax Certification - Air)  
PROPERTY IDENTIFICATION NUMBER )  
19-1-08-35-00-000-001 or portion thereof )

NOTICE

TO: [Electronic filing] John Therriault, Assistant 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: November 28, 2011

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

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OF THE STATE OF ILLINOIS

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Subpart Ja Revisions to Flares )  
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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: November 28, 2011

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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 consists of revisions to designated flare devices used in refining operations to relieve certain operating equipment from overpressure caused by hydrocarbon vapors and/or hydrogen streams. These streams, commonly low pressure and/or low volume in nature, have been historically routed to flares due to the prohibitive cost of recovery, and they contain hydrogen sulfides, which can generate emissions of sulfur oxides when vented to the atmosphere. The project affects four existing flares at the refinery. As described in the application, the LSG flare, which services a gasoline hydrotreater, a gasoline fractionation column and a diesel recovery column, is being fitted with a flow meter and composition analyzer, as well as insulated piping and various valves to route gases to an existing flare gas recovery compressor. The North Property Flare, which serves the Fluid Cat Crackers and Fuel Gas distribution system, is being fitted with a flow meter and composition analyzer, together with changes to piping and instrumentation to the Fuel Gas distribution system that will replace a high-content hydrogen sulfide stream that is currently flared with a lower-content stream. The existing Alky flare used to handle gases from the newly-constructed Ultralow Sulfur Diesel Hydrotreater is being fitted with a flare gas recovery compressor, together with a large diameter flare header and valves. Lastly, the Distilling West Flare, which serves the Crude Unit, a Delayed Coker and a gasoline hydrotreater, is being fitted with a flow meter and composition analyzer.

5. The various revisions to the four flare devices and associated piping, equipment and instrumentation will allow the refinery to comply with federal regulations governing refinery flares found at 40 CFR Subpart Ja. The flow meters and composition analyzers will be used to assess the composition and volume of flare streams, which will then be used to evaluate future changes to refinery operations for complying with Subpart Ja. The other components of the

project can be expected to result in a reduction of emissions of sulfur oxides from refinery flaring under existing operations.

6. 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.”

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

8. Based on information in the application and the underlying purpose of the Subpart Ja Revisions to Flares project to prevent, eliminate or reduce air pollution, it is the Illinois EPA’s engineering judgment that the various systems, constructions, devices and/or buildings or equipment from the project relating to air pollution control 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]**.

9. Because the substantive components of the application for the Subpart Ja Revisions to Flares 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: November 28, 2011

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 28<sup>th</sup> day of November, 2011, I electronically filed the following instruments entitled **NOTICE, APPEARANCE** and **RECOMMENDATION** with:

John Therriault, Assistant 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





POLLUTION CONTROL FACILITY - CONTAMINANTS	Sec. E (1) Nature of Contaminants or Pollutants		
			Material Retained, Captured or Recovered
	Contaminant or Pollutant	DESCRIPTION	DISPOSAL OR USE
	SOx	H2S	Converted to sulfur and sold
	Hydrocarbon compounds including HAPs	C1-C6 hydrocarbons	Recovered and sold as product
	(2) Point(s) of Waste Water Discharge		
	Plans and Specifications Attached		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	(3)	Are contaminants (or residues) collected by the control facility?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
(4)	Date installation completed <u>12/01/11</u> status of installation on date of application <u>65%</u>		
ACCOUNTING DATA	(5) a.	TOTAL INSTALLED COST	\$ 16,472,680.00
	b.	NET SALVAGE VALUE IF CONSIDERED REAL PROPERTY:	\$ 164,000.00
	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

SIGNATURE	Sec. F	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.	
		<u>Kenn C. Stutz</u> Signature	<u>DIRECTOR - PTRRC</u> Title

INSTRUCTIONS	Sec. G	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 <u>pollution control facility</u> . Include a listing of each major piece of equipment included in the claimed fair cash value for real property. Include an <u>average</u> 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: CORE Related Subpart Ja Revisions to Flares

Section C – Manufacturing Process

Describe Unit Process

A flare is tall large diameter vertical stack with a continuously maintained flame at the top. During non routine operation such as loss of electrical power or loss of cooling water, refinery units must release hydrocarbon vapor and hydrogen streams to prevent overpressure of operating equipment. The flare combusts the released hydrocarbon vapor and hydrogen streams so that the volatile hydrocarbons (including Hazard Air Pollutants such as benzene) and other pollutants such as hydrogen sulfide and ammonia are not released to atmosphere.

Historically, the continuous routing of some low volume low pressure hydrocarbon vapor and hydrogen streams to the flare has been permitted. Recovery and reprocessing of this material is not economical due to the low volume and low pressure of the streams and the high cost of recovery. These low volume streams contain some hydrogen sulfide (H<sub>2</sub>S) and ammonia (NH<sub>3</sub>) which produce SO<sub>x</sub> and NO<sub>x</sub> when combusted in the flare. The combustion of the hydrocarbon in the streams also produces CO<sub>2</sub> which is released to the atmosphere.

In the near future, the Wood River Refinery flares will be subjected to the criteria of "40 Code of Federal Regulations Subpart Ja - Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction or Modification Commenced After May 14, 2007" or "Subpart Ja" for short. The Wood River Refinery CORE Project impacts 4 existing Wood River flares. Pollution reduction modifications to these flares are being completed to reduce materials to flares and to make the flares compliant with Subpart Ja.

Section D – Pollution Control Facility Description

The Pollution Control Facilities installed on these 4 existing Wood River flares reduces air pollution by installing facilities to recover material currently combusted in the flares and by providing the Subpart Ja required flow meters and analyzers to determine the volume of material flared and sulfur present in the material. Revisions to refinery operation will be required to reduce air pollution from the flares below that permitted by Subpart Ja.

The LSG Flare serves a gasoline hydrotreater, a gasoline fractionation column, and a diesel recovery column. The H<sub>2</sub>S content of the routine gases to the LSG Flare exceeds the Subpart Ja limits. Thus, a Pollution Control Facility must be installed on this flare. The LSG Flare Pollution Control Facility will reduce SO<sub>x</sub> pollution to atmosphere. The LSG Flare Pollution Control Facility consists of over 1000 feet of traced and insulated piping to route the routine LSG Flare gases to an existing flare gas recovery compressor. Also a rupture disc and valves will be installed to prevent the routine gases from reaching the LSG flare but allow emergency relief gases to reach the flare. Instrumentation necessary to operate the Pollution Control Facility will also be installed. A Subpart Ja compliant flow meter and composition analyzer and associated equipment and instrumentation will be installed to determine the volume of material flared and sulfur present in the material. This Pollution Control Facility will reduce air pollution due to SO<sub>x</sub> and CO<sub>2</sub> by recovering gases normally routed to the LSG flare.

The North Property Flare serves many Wood River Refinery units including the Fluid Cat Crackers and the Fuel Gas distribution system. A Subpart Ja compliant flow meter and composition analyzer and associated equipment and instrumentation will be installed on the North Property Flare to

determine the volume of material flared and sulfur present in the material. Revisions to refinery operation will be required to reduce air pollution from the flares below that permitted by Subpart Ja. In addition, the current overpressure protection for the Fuel Gas distribution system routes a high H<sub>2</sub>S content to this flare. Piping and instrumentation revisions are being completed to revise the Fuel Gas distribution system overpressure protection so that a low H<sub>2</sub>S content steam is routed to this flare. This Pollution Control Facility will reduce air pollution due to SO<sub>x</sub> by reducing the amount of H<sub>2</sub>S combusted in the flare.

As part of the CORE project, an existing gasoil hydrotreater unit is being converted to a new Ultralow Sulfur Diesel Hydrotreater, ULD-2. Piping exists to route ULD-2 flare gases to the existing Alky Flare. The Alky flare is not equipped with a flare gas recovery compressor. Thus, the existing route for ULD-2 flare gases to the Alky flare results in SO<sub>x</sub> and CO<sub>2</sub> emissions. A Pollution Control Facility is being installed to eliminate these SO<sub>x</sub> and CO<sub>2</sub> emissions. The Pollution Control Facility consists of approximately 500 feet of new large diameter flare header and valves to route the ULD-2 flare gases to a flare that is equipped with a flare gas recovery compressor. This will allow ULD-2 flare gases to be recovered and thus reduce SO<sub>x</sub> and CO<sub>2</sub> emissions.

The Distilling West Flare serves a Crude Unit, a Delayed Coker, and a gasoline hydrotreater. The flow rate and H<sub>2</sub>S content of the gases to the Distilling West Flare is not currently measured. A Subpart Ja compliant flow meter and composition analyzer and associated equipment and instrumentation will be installed to determine the volume of material flared and sulfur present in the material. Revisions to refinery operation will be required to reduce air pollution from this flare below that permitted by Subpart Ja. Thus, this Pollution Control Facility will reduce air pollution due to SO<sub>x</sub> and CO<sub>2</sub> by measuring flare flow rates and H<sub>2</sub>S content and by causing changes to refinery to reduce flare rates and/or H<sub>2</sub>S content.

Thus, the sole purpose of these revisions is to reduce air pollution due to SO<sub>x</sub> and CO<sub>2</sub> emissions from flares.



## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-2829  
James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026

PAT QUINN, GOVERNOR

### Memorandum

#### Technical Recommendation for Tax Certification Approval

Date: November 23, 2011  
To: Robb Layman  
From: Ed Bakowski *EB*  
Subject: WRB Refining LLC TC-10-14-10F

This Agency 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. I offer the following recommendation:

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

Subpart Ja Revisions to Flares, which will both identify and implement measures designed to comply with federal regulations governing refinery flares and therefore reduce and/or prevent emissions of sulfur oxides that would otherwise be emitted to the atmosphere. Because the primary purpose of this system is to reduce or prevent air pollution, 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 my engineering judgment that the proposed facility may be considered "Pollution Control Facilities" under 35 IAC 125.200(a), with the primary purpose of eliminating, preventing, or reducing air pollution, or as otherwise provided in this section, and therefore eligible for tax certification from the Illinois Pollution Control Board. Therefore, it is my recommendation that the Board issue the requested tax certification for this facility.

*Exhibit B*