

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

WRB REFINING, LLC)
New Units' Flare System)
)
) 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

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

| | | |
|--|---|---------------------------|
| WRB REFINING, LLC |) | |
| New Units' Flare System |) | |
| |) | |
| |) | PCB 12- |
| |) | (Tax Certification - Air) |
| PROPERTY IDENTIFICATION 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: November 28, 2011

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

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

| | | |
|--|---|---------------------------|
| WRB REFINING, LLC |) | |
| New Units' Flare System |) | |
| |) | |
| |) | PCB 12- |
| |) | (Tax Certification - Air) |
| PROPERTY IDENTIFICATION 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 consists of a new flare system to collect and recover or safely combust various hydrocarbons from the refinery's New Units, which comprise a Vacuum Crude Unit, a Delayed Coker, a Delayed Coker Naphtha Hydrotreater and a Coker Gas Plant. These process units possess pressure relief valves to ensure safe operation of the equipment during non-routine operation (i.e., upsets, loss of electrical power or loss of cooling water), which poses the potential for release of various hydrocarbons, including hydrogen sulfide, ammonia and other volatile organic materials, to the atmosphere. In order to prevent direct release of the hydrocarbons during such events, a flare system is needed to collect the vapors for recovery or ensure safe combustion. The New Units' Flare System will include a new collection header (i.e., piping that connects to each unit's relief valves), two liquid knock out vessels that allow liquid materials to separate from a vapor stream for recovery, two flare gas recovery compressors and ancillary equipment that act to recover day-to-day purges or leaks directed to the flare system and a combustion flare. A continuous emissions monitoring system is also being installed, as required by federal regulations governing refinery operations, that will monitor flow and composition of the combusted flare gas.

5. The new flare system for the New Units will reduce or prevent air pollution that would otherwise be emitted to the atmosphere from pressure relief valves during non-routine 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 New Units' Flare System 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 New Units' Flare System 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 28th 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

***** PCB 12-078 *****
 APPLICATION FOR CERTIFICATION (PROPERTY TAX TREATMENT)
 POLLUTION CONTROL FACILITY
 AIR WATER

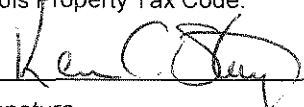
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
 P. O. Box 19276, Springfield, IL 62794-9276

This Agency is authorized to request this information under Illinois Revised Statutes, 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. 06050052 | | Date Issued 08/05/08 | | |
| Air Pollution Control Operating Permit No. 95120306 | | Date Issued 11/07/03 | | |
| Sec. C MANUFACTURING PROCESS | Describe Unit Process See New Units Flare System Project Attachment. | | | |
| | Materials Used in Process See New Units Flare System Project Attachment. | | | |
| Sec. D POLLUTION CONTROL FACILITY DESCRIPTION | Describe Pollution Abatement Control Facility See New Units Flare System Project Attachment. | | | |

Exhibit A

| | | | | |
|---|---|--|---|---|
| Sec. E | (1) Nature of Contaminants or Pollutants | | | |
| POLLUTION CONTROL FACILITY - CONTAMINANTS ACCOUNTING DATA | | Material Retained, Captured or Recovered | | |
| | Contaminant or Pollutant | DESCRIPTION | DISPOSAL OR USE | |
| | Hydrogen Sulfide (H2S) | Hydrogen Sulfide | Converted to sulfur and sold | |
| | Volatile Organic Carbon (VOC) | Hydrocarbon | Sold as product | |
| | Ammonia (NH3) | Ammonia | Converted to Nitrogen gas | |
| | Sulfur Oxides | Hydrogen sulfide | Converted to sulfur and sold | |
| | Nitrogen Oxides | Ammonia | Converted to Nitrogen gas | |
| | (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>04/01/11</u> status of installation on date of application <u>90%</u> | | | |
| (5) | a. TOTAL INSTALLED COST | \$ 32,465,700.00 | | |
| | b. NET SALVAGE VALUE IF CONSIDERED REAL PROPERTY: | \$ 194,400.00 | | |
| | 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 | 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. | | | |
| SIGNATURE |  _____ Signature | | | |
| | _____ Title | | | |
| 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. | | | |
| INSTRUCTIONS | 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 <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: | |
| | | 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: New Units Flare System Project

Section C – Manufacturing Process

Process Description:

The Wood River Refinery New Units Flare System Project installs collection headers, liquid knock out vessels, flare gas recovery compressors, combustion flare, and a continuous emissions monitoring system. The primary purpose of the New Units Flare System Project is to reduce air pollution by either recovery of hydrogen sulfide, ammonia, and hydrocarbons including hazardous air pollutants such as benzene or combustion of any material that can not be recovered. The New Units Flare System includes Flare Gas Recovery Compressors which reduce carbon dioxide, SO_x, and NO_x emissions and are required by EPA regulations.

The New Units include a Vacuum Crude Unit, a Delayed Coker, a Delayed Coker Naphtha Hydrotreater, and a Coker gas Plant. Within the New Units, multiple pressure vessels have been installed. Each vessel is equipped with a pressure relief valve. During non routine operation such as loss of electrical power or loss of cooling water, the relief valve protects the vessel from overpressure by opening and relieving the contents of the vessel. The vessels contain hydrogen sulfide, ammonia, and hydrocarbons including hazardous air pollutants such as benzene. To prevent contamination of the atmosphere with these pollutants, the outlet of the relief valves are connected to the flare system. The purpose of the flare system is to collect hydrocarbon and other contaminants during emergency situations, remove hydrocarbon liquid that is recovered, and safely combust the released hydrocarbon so that volatile hydrocarbons 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 (H₂S) and ammonia (NH₃) which produce SO_x and NO_x when combusted in the flare. The combustion of these streams in a flare also results in increased carbon dioxide emissions. The New Units Flare System includes Flare Gas Recovery Compressors (FGRC) to recover this material.

The flare system has the following major components:

- Collection Header – a network of piping running throughout the various units connected to the outlet of each relief valve that may contain hydrocarbons.
- Liquid Knock Out Vessels – two large vessels provide a wide spot in the line where any liquids fall out of the vapor stream prior to going to the flare. These liquids are recovered and processed in the refinery.
- Flare Gas Recovery Compressors (FGRC) – FGRC is required by the US EPA under the Subpart Ja regulations. FGRC consists of two compressors and their support equipment. The compressors are capable of recovering all of the normal day to day purges, vents, and relief valve leaks that are sent to the flare. Gas recovered by the compressors is routed to the refinery fuel gas treatment system. Gas recovery compressors eliminate the need to combust flare gases during normal operation. Flaring is still required under upset conditions.
- Combustion Flare – a large stack nearly 200 feet tall equipped with a combustion tip. Relieved gases make their way to the top of the stack via piping where continuous flame pilots ignite the gas and combust it. Within the combustion tip are steam nozzles that pull air into the combustion zone to ensure complete combustion.
- Continuous Emissions Monitoring (CEMS) – CEMS is required by the US EPA under the Subpart Ja regulations. CEMS analyzes the flow and composition of any flare gas that is combusted. Data from the CEMS is the source of data for reporting to the EPA.

A process flow diagram of the New Units Flare System is attached.

Materials Used in Process:

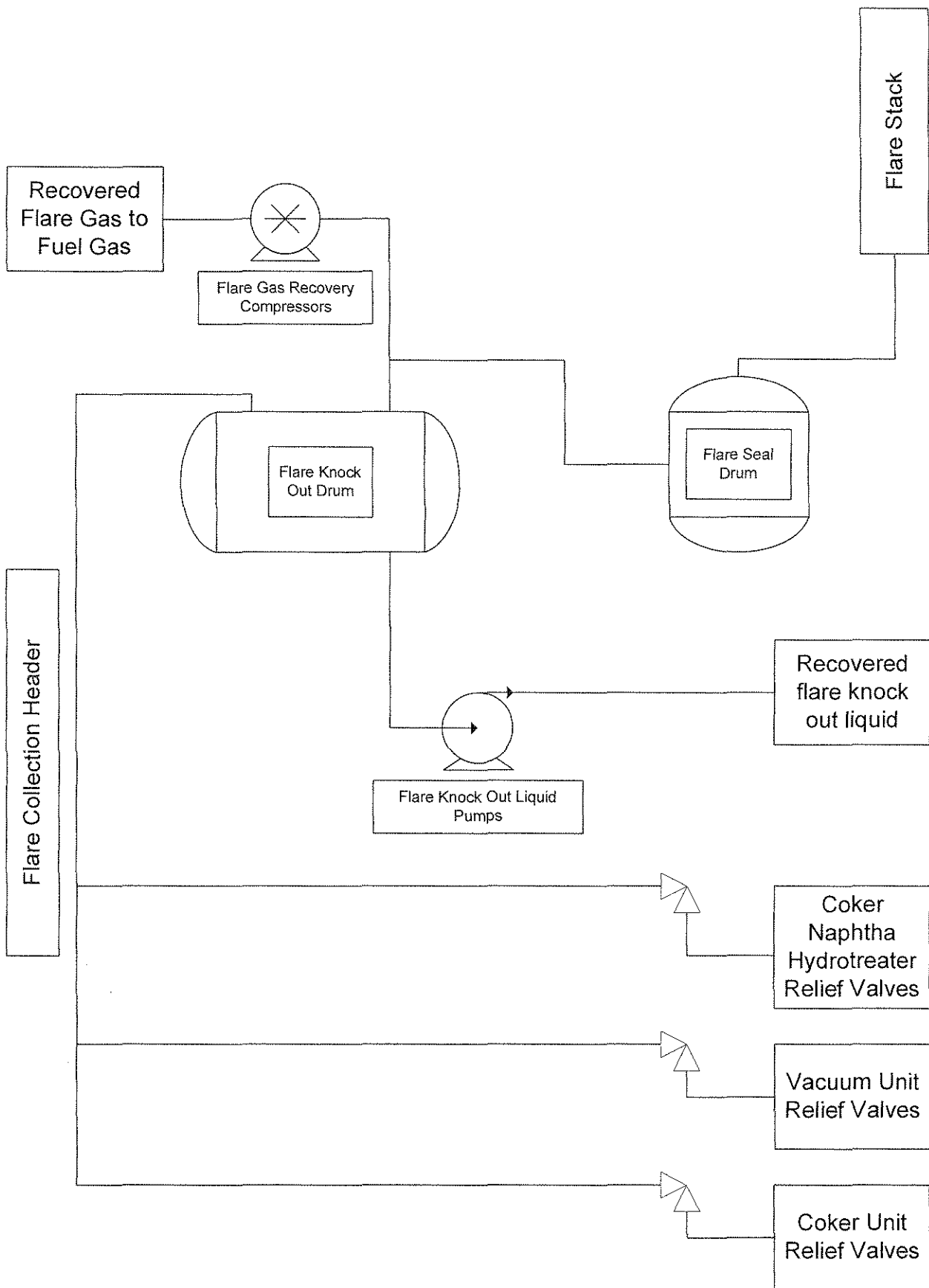
- Light hydrocarbons including methane, ethane, propane, benzene
- Hydrogen sulfide
- Ammonia

Section D – Pollution Control Facility Description

The primary purpose of the New Units Flare System is to reduce air pollution by preventing hydrogen sulfide, ammonia, and hydrocarbons including hazardous air pollutants such as benzene from being released directly to the atmosphere. Without this pollution control device, these air pollutants relieved from pressure vessels during non routine operation would be released directly to atmosphere. Additionally, the New Units Flare System reduces carbon dioxide, SO_x, and NO_x emissions from the flare by recovering routine flare gases using Flare Gas Recovery Compressors which are installed solely to reduce air pollution and are required to meet EPA regulations.

The hydrocarbon recovered by this pollution control facility does generate some revenue for the Wood River Refinery, but the costs to operate the pollution control facility are greater than this revenue and thus this pollution control facility results in no net income for the Wood River Refinery

Process Flow Diagram of Flare System






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 
Subject: WRB Refining LLC TC-10-14-10J

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:

New Units' Flare System, which installs a new flaring system for various newly-constructed process equipment that will collect and recover or safely combust hydrocarbons emitted from associated pressure relief valves during non-routine operations, thereby reducing or preventing emissions from hydrocarbons that might 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