

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

WRB REFINING, LLC)
Delayed Coker Naphtha Hydrotreater)
)
) 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**

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Delayed Coker Naphtha Hydrotreater)	
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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 the Delayed Coker Naphtha Hydrotreater, which was implemented by the refinery to remove sulfur from coker naphtha and thereby prevent emissions of sulfur oxides (“SOx”) caused by the use or consumption of the resulting gasoline product. As described in the application, the Delayed Coker Naphtha Hydrotreater employs hydrogen, a fixed bed catalyst, high pressure and high temperatures to remove sulfur compounds from coker naphtha. This new refinery process mixes the coker naphtha, a blend component of gasoline, with hydrogen, heats it and then directs it a pair of pressurized reactors, where the naphtha is introduced to the fixed-bed hydrotreater. The hydrotreating catalyst removes sulfur from the naphtha stream, converting it to hydrogen sulfide, and the resulting naphtha is directed to storage, where it can be sold as a lower sulfur gasoline rather than blended with other gasoline components.

5. The installation of the process allows the refinery to comply with the United States’ Environmental Protection Agency’s gasoline fuel content requirements, which restricts the sulfur content of gasoline to less than 30 parts per million by weight. The new hydrotreater unit ultimately prevents higher SOx emissions from the gasoline pool supplied to consumers for use in automobiles and other gasoline-powered engines. Secondly, the improved quality of gasoline products allows consumers to make use of more advanced emission control systems for gasoline engines, which can result in reductions of nitrogen oxides and particulate matter emissions.

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 Delayed Coker Naphtha Hydrotreater 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 Delayed Coker Naphtha Hydrotreater 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

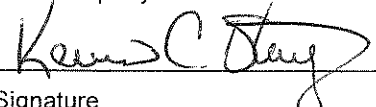
/s/ Robb H. Layman
Robb H. Layman
Assistant Counsel

***** PCB 12-079 *****
 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
	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 Delayed Coker Naphtha Hydrotreater (DCNH) – Sulfur Removal from Coker Gasoline Project Attachment.				
	Materials Used in Process See Delayed Coker Naphtha Hydrotreater (DCNH) – Sulfur Removal from Coker Gasoline Project Attachment.				
Sec. D POLLUTION CONTROL FACILITY DESCRIPTION	Describe Pollution Abatement Control Facility See Delayed Coker Naphtha Hydrotreater (DCNH) – Sulfur Removal from Coker Gasoline Project Attachment.				
	 Exhibit A				

Sec. E	(1) Nature of Contaminants or Pollutants		
POLLUTION CONTROL FACILITY - CONTAMINANTS			Material Retained, Captured or Recovered
	Contaminant or Pollutant	DESCRIPTION	DISPOSAL OR USE
	Sulfur oxides (SOX)	Hydrogen Sulfide	Recovered and converted to solid elemental sulfur.
(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>80%</u>		
ACCOUNTING DATA	(5)	a. TOTAL INSTALLED COST	\$ 267,127,026.00
		b. NET SALVAGE VALUE IF CONSIDERED REAL PROPERTY:	\$ 2,670,000.00
		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	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		DIRECTOR - PTRRC Title
Sec. G	INSTRUCTIONS FOR COMPILING AND FILING APPLICATION		
INSTRUCTIONS	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: Delayed Coker Naphtha Hydrotreater (DCNH) – Sulfur Removal from Coker Gasoline

Section C – Manufacturing Process

Process Description:

The Wood River Refinery Delayed Coker Naphtha Hydrotreater (DCNH) Project was implemented to prevent the emission of sulfur oxides (SOx) pollutants due to consumer use of the product. The DCNH is a refinery process that removes sulfur from coker naphtha, which is a blend component of gasoline. The sulfur content of untreated coker naphtha is 21,000 ppmw while the sulfur content of the hydrotreated naphtha product is less than 1 ppmw.

This project also enables the refinery to meet US EPA requirements that gasoline sulfur content is less than 30 parts per million by weight (ppmw). The low sulfur gasoline reduces emissions of sulfur compounds (a cause of acid rain) and also allows automobile engines to be fitted with advanced emission control systems that would otherwise be poisoned by sulfur. Together, low sulfur gasoline and advanced emission control systems can greatly reduce emissions of oxides of nitrogen and particulate matter.

The DCNH unit uses hydrogen, fixed bed hydrotreating catalyst, high pressure, and elevated temperature to remove sulfur from coker naphtha. The coker naphtha is mixed with hydrogen, heated, and sent to the 2 high pressure reactors. In the reactors, the naphtha contacts fixed bed hydrotreating catalyst which removes the sulfur from the naphtha and converts it to H₂S. The reactor effluent is cooled via heat recovery exchangers and routed to a recovery/stabilization section. Hydrogen not consumed in the reaction is separated in the recovery section. It is then sent to an amine contactor where H₂S is removed before being recycled to the reactors. The stabilization section removes light hydrocarbon material from the naphtha, which is sent to the Coker Gas Plant for further processing. The stabilized naphtha is routed to storage. Rich amine, which is amine saturated with H₂S, is sent to the Sulfur Plant where H₂S is removed and converted to elemental sulfur. Lean amine, which is amine without H₂S, is circulated back to the amine contactor.

Materials Used in Process:

- High sulfur naphtha
- Hydrogen
- Catalysts
- Amine
- Steam
- Fuel Gas

Attached is a process flow diagram of the DCHN.

Section D – Pollution Control Facility Description

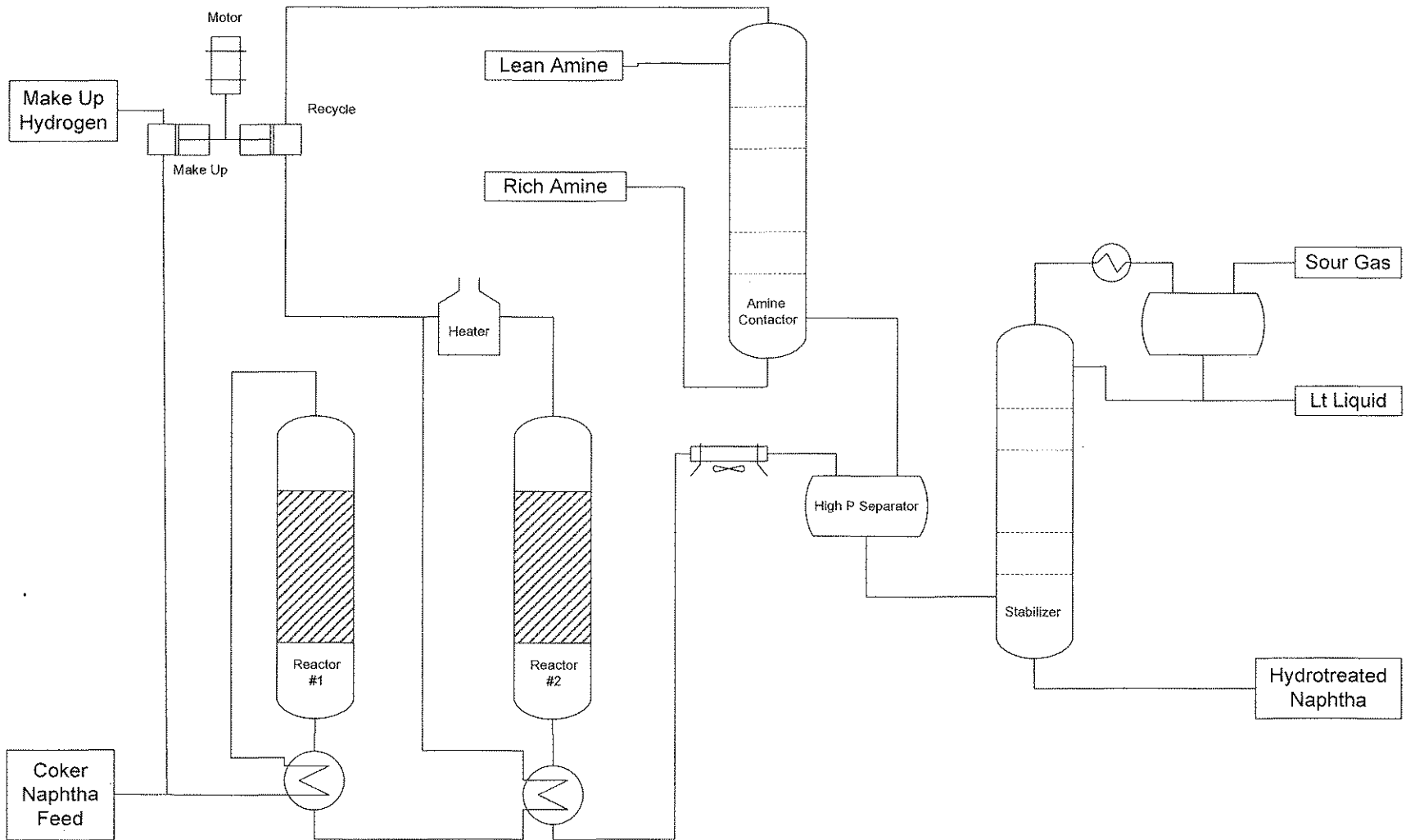
If the emission of SOx pollution was not a concern, the Delayed Coker naphtha could and would be blended directly with other gasoline components and sold as high valued gasoline. However, SOx pollution is a significant concern and thus the Wood River Refinery installed the Delayed Coker Naphtha Hydrotreater (DCNH) Project to remove sulfur from coker naphtha so that this material could be used as gasoline without the emission of SOx pollution. The DCNH prevents the emission to the atmosphere of approximately 65 metric tons per day of SOx.

This project also enables the refinery to continue to meet US EPA requirements that gasoline sulfur content is less than 30 parts per million by weight (ppmw). The low sulfur gasoline reduces emissions of sulfur compounds (a cause of acid rain) and also allows automobile engines to be fitted with advanced emission control systems that would otherwise be poisoned by sulfur. Thus, low sulfur gasoline is a necessary and integral part of the automobile pollution reduction system, allowing advanced emission control systems which can greatly reduce emissions of oxides of nitrogen and particulate matter.

Thus, the DCNH provides pollution control in two ways. First, the DCNH directly reduces SOx pollution by removing sulfur from gasoline. Second, the DCNH provides the gasoline quality necessary for reducing emissions of oxides of nitrogen and particulate matter through the use of advanced emission control systems in automobiles.

The sulfur 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

Delayed Coker Naphtha Hydrotreater Process Flow Diagram





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-10-14-10A

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:

Delayed Coker Naphtha Hydrotreater, which removes sulfur from coker naphtha and therefore prevents emissions of sulfur oxides that would otherwise be caused in the use or consumption of the resulting gasoline product. 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