



## Permit Renewal Source Analysis & Technical Review

Company	<b>Cabot Norit Americas, Inc.</b>	Permit Number	<b>56552</b>
City	<b>Marshall</b>	Project Number	<b>211402</b>
County	<b>Harrison</b>	Account Number	<b>HH-0019-H</b>
Project Type	<b>Renewal</b>	Regulated Entity Number	<b>RN102609724</b>
Project Reviewer	<b>Laura Gibson, P.E.</b>	Customer Reference Number	<b>CN600356372</b>
Site Name	<b>Activated Carbon Production Facility</b>		

### Project Overview

The applicant has applied for a renewal of its New Source Review (NSR) permit number 56552. The permit authorizes the operation of three kilns which produce activated carbon from lignite. Kilns 2, 3, and 4 share a common stack, whose Emission Point Number (EPN) is MAINSTACK. The permit also authorizes ancillary equipment, control equipment, fugitives, and associated maintenance, startup, and shutdown (MSS) emissions. Ancillary and control equipment includes an ash pit, refractory pit, conveyors, dust collectors, and storage tanks.

With this renewal, the applicant is deleting sources which have been permanently removed from the site, have been found to have no emissions, or have been incorporated into another permit at the site.

The kilns were grandfathered prior to 2004; and no permit actions have been authorized since the kilns were brought into the air permitting program with issuance of NSR Permit No. 56552 in 2004.

MSS sources were included in the original permitting.

Other TCEQ Air Permitting Authorizations at this site:

Permit Number	Applicable Rules for Permits by Rule (PBRs)	Source	EPNs
2265A	NA	Multi-hearth Furnace and supporting equipment	MHFLIGSTK, MHFFUGTIV, MHFGACPT, MHFLIGSTK, MHFEMERSTK
3068A	NA	Bins, Conveyors, Packers, Mills, Stoners, Screeners	> 50 EPNs
5725A	NA	Kiln 5, Boiler 8, Dust Collectors	K5ARADCSTK, INSULDCSTK, K5MANSTK, BLR8STK
78421, PSDTX1183	NA	Multi-hearth Furnaces 4, 5, 6, and 7, Conveyors, Silos, Transfer Points, Mills, Bins, Vacuums, Cooling Tower, Crushers	> 100 EPNs
Std Pmt No. 89199	116.617 Pre 2011	SO <sub>2</sub> reductions from Kiln 5 Scrubber	Authorized in NSR Permit No. 5725A.
PBR No. 95581	106.261,106.262,106.472	Inorganic Salt Tank	VNT07450
Std Pmt No. 102514	116.617 Pre 2011	Selective non-catalytic reduction (SNCR) for Multi-hearth 2	MHF2STACK, UREAVENT
PBR No. 106336	106.261,106.262	Salt Unloading Facility for Brine Tank	SALTUNLOAD
PBR No. 110066	106.261	Screening Facility 5 for Product from Multi-hearth 2	5SCRNSDCSK, 5SCRNGACLD, 5SCRNBLKLD
PBR No. 119095	106.262	Container loading and unloading	LOB2DSCT, 7MILLFDBNA, ToteBin1, ToteBin2

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## Emission Summary

Air Contaminant	Current Allowable Emission Rates (tpy)	Proposed Allowable Emission Rates (tpy)	Change in Allowable Emission Rates (tpy)
PM <sub>10</sub>	135.42	131.58	-3.84
PM <sub>2.5</sub> *	---	118.14	0.00
VOC	108.33	108.33	0.00
NO <sub>x</sub>	498.61	498.61	0.00
CO	411.63	411.63	0.00
SO <sub>2</sub>	342.06	342.06	0.00
H <sub>2</sub> S	1.8	1.8	0.00

\* PM<sub>2.5</sub> is being speciated for this permit action, yet has always been emitted.

## Compliance History Evaluation - 30 TAC Chapter 60 Rules

A compliance history report was reviewed on:

**October 4, 2014**

Compliance period:

**September 1, 2009 – August 31, 2014**

Site rating & classification:

**6.84, Satisfactory**

Company rating & classification:

**7.94, Satisfactory**

If the rating is 50<RATING<55, what was the outcome, if any, based on the findings in the formal report:

**NA**

Has the permit changed on the basis of the compliance history or rating?

**No**

## Public Notice Information - 30 TAC Chapter 39 Rules

Rule Citation	Requirement		
39.403	Date Application Received:	<b>May 27, 2014</b>	
	Date Administratively Complete:	<b>June 9, 2014</b>	
	Small Business Source?	<b>No</b>	
	Date Leg Letters mailed:	<b>June 9, 2014</b>	
	Date Published:	<b>June 25, 2014</b>	
39.603	Publication Name:	<b>Marshall News Messenger</b>	
	Pollutants:	Organic compounds, nitrogen oxides, carbon monoxide, sulfur dioxide, hydrogen sulfide and particulate matter including particulate matter with diameters of 10 microns or less and 2.5 microns or less.	
	Date Affidavits/Copies Received:	<b>July 7, 2014</b>	
	Is bilingual notice required?	<b>Yes</b>	
	Language:	<b>Spanish</b>	
	Date Published:	<b>June 25, 2014</b>	
	Publication Name:	<b>La Opinion</b>	
	Date Affidavits/Copies Received:	<b>July 7, 2014</b>	
	Date Certification of Sign Posting / Application Availability Received:	<b>July 21, 2014</b>	
	39.604	Public Comments Received?	<b>Yes</b>
		Hearing Requested?	<b>Yes</b>
Meeting Request?		<b>Yes</b>	
Date Meeting Held:		<b>NA</b>	

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<b>Rule Citation</b>	<b>Requirement</b>	
	Date Response to Comments sent to OCC:	
	Request(s) withdrawn?	
	Date Withdrawn:	
	Consideration of Comments:	
	Is 2nd Public Notice required?	<b>No</b>
39.419	If no, give reason:	<b>Renewal meets criteria of 30 TAC § 39.419(e).</b>
39.421	Request for Reconsideration Received?	
	Final Action:	
	Are letters Enclosed?	

### **Renewal Requirements - 30 TAC Chapter 116 Rules**

<b>Rule Citation</b>	<b>Requirement</b>	
116.315(a)	Date of permit expiration:	<b>November 19, 2014</b>
116.310	Date written notice of review was mailed:	<b>February 10, 2014</b>
116.315(a)	Date application for Renewal (PI-1R) received:	<b>May 27, 2014</b>
116.311(a)(1)	Do dockside vessel emissions associated with the facility comply with all regulations?	<b>NA</b>
116.311(a)(2)	Is the facility being operated in accordance with all requirements and conditions of the existing permit, including representations in the application for permit to construct and subsequent amendments, and any previously granted renewal, unless otherwise authorized for a qualified facility?	<b>Yes</b>
116.311(a)(3)	Subject to NSPS?	<b>No</b>
116.311(a)(4)	Subject to NESHAPS?	<b>No</b>
116.311(a)(5)	Subject to NESHAPS (MACT) for source categories?	<b>No</b>
116.311(a)(6)	Does this project require case-by-case MACT?	<b>No</b>
116.311(b)	Was there a condition of air pollution that had to be addressed during this project review?	<b>No</b>
116.314(a)	Does the facility meet all permit renewal requirements?	<b>Yes</b>
116.313	Permit Renewal Fee: \$ <b>10,000.</b> Fee certification:	<b>R427767</b>
	Applicable Outstanding Fees:	<b>None</b>

### **Title V Applicability - 30 TAC Chapter 122 Rules**

<b>Rule Citation</b>	<b>Requirement</b>	
122.10(13)	<b>Title V applicability:</b> The site is subject to Title V and has Title V Permit No. O3335.	
122.10(13)(A)	Is the site a major source under FCAA Section 112(b)?	<b>Yes</b>
	Does the site emit 10 tons or more of any single HAP?	<b>Yes</b>
	Does the site emit 25 tons or more of a combination?	<b>Yes</b>
122.10(13)(C)	Does the site emit 100 tons or more of any air pollutant?	<b>Yes</b>
122.10(13)(D)	Is the site a non-attainment major source?	<b>No</b>

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122.602	<b>Periodic Monitoring (PM) applicability:</b> Periodic monitoring is applicable because this site is subject to 30 TAC Chapter 122. Monitoring in the form of monthly observations of opacity from the MAINSTACK and quarterly observations of other EPNs are used to demonstrate compliance with the permit limits.
122.604	<b>Compliance Assurance Monitoring (CAM) applicability:</b> CAM applies to emission units at a major source subject to 30 TAC Chapter 122. CAM is applicable because this facility has a baghouse where the pre-control potential-to-emit is above the major source threshold for PM/PM <sub>10</sub> /PM <sub>2.5</sub> . To satisfy CAM requirements, daily monitoring of pressure drop of fabric filters are required.

### **Request for Comments**

Received From	Program/Area Name	Reviewed By/Date	Comments
Region:	<b>5</b>	<b>Jason Sutherland, 10/22/14</b>	<b>Question about language in Special Condition Nos. 7 and 8</b>
City:	<b>Marshall</b>		<b>No local program.</b>
County:	<b>Harrison</b>		<b>No local program.</b>
ADMT:			<b>No ADMT issues.</b>
EB&T:			<b>No EB&amp;T issues.</b>
Toxicology:			<b>No Toxicology issues.</b>
Compliance:			<b>No compliance issues.</b>
Legal:			<b>RTC sent to Legal 6/5/2015</b>
Comment resolution and/or unresolved issues:	Called Region 5 staff (Sutherland) on 10/22/14 to discuss language in Special Condition Nos. 7 and 8 which stated the throughput limits are based on process conditions and not permitted levels in the MAERT. The language in the Special Conditions is correct and is from the original permit language in 2004 for these previously grandfathered units.		

### **Process/Project Description**

Kilns 2, 3, and 4 produce activated carbon from lignite and were originally constructed prior to 1971. They were previously grandfathered sources and were brought into the NSR Air Permitting program with the issuance of this permit (No. 56552) in 2004. The kilns burn natural gas and combustible gas and particulate matter is generated from the lignite during the activation process. Other emission points are associated with handling raw material or the product of the kilns. The product from these three kilns is commingled with product from other kilns at the site. As indicated above in the Project Overview, many other sources are present at the site with various authorizations.

In addition to requesting a renewal of NSR Permit No. 56552, the applicant is also removing several EPNs from the permit.

- FGTVTRNSFR, Lignite Transfer Fugitives to Kilns 2, 3, and 4: Previously incorporated into Permit No. 78421
- WILLMILL, Williams Mill: Previously incorporated into Permit No. 78421
- NAOHTNKVNT, Main 50 Percent Sodium Hydroxide (NaOH) Storage Tank: Emissions from this source were removed per TCEQ Technical Specialist guidance. NaOH is not considered an air contaminant because its vapor pressure is below 0.01 millimeters Mercury at 40°C (per TCEQ September 19, 1996 Interoffice Memorandum, "When Should a Compound be Considered an Air Contaminant", by Vermillion and Ngo).
- WWCOOLTOWER, Wastewater Treatment Plant Cooling Tower: Removed from service and no longer on site.

The opacity language in Special Condition No. 3 is clarified to be consistent with existing Title V and 30 TAC Chapter 111 requirements with this renewal. Associated recordkeeping is added as Special Condition No. 12E. PM<sub>2.5</sub> is also being speciated on the MAERT for first time, although it has always been emitted. MSS activities were included in the initial application and continue to be authorized. There have been no increases in emission rates with this renewal and no new air contaminants.

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**Pollution Prevention, Sources, and Controls - [30 TAC 116.311(b)(2)]**

Controls were reviewed in the 2004 authorization and are as follows: Emissions from each kiln are combusted and VOC is reduced via a natural gas fired boiler for each kiln. Exhaust from each boiler then goes to a saturator where it is sprayed with water, then to a venturi scrubber, then to an air/water separator. Caustic is added to the venturi scrubber liquor as needed to keep the pH at a set limit to control SO<sub>2</sub>, hydrogen chloride (HCl), hydrogen fluoride (HF), and sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) emissions. Exhaust from all three of the separators is combined and is emitted through the MAINSTACK. Each kiln has an emergency stack, which is also used during kiln startup and shutdown (when there is no lignite in the kiln). The applicant must notify the Regional Office anytime the emergency stacks are used. Emissions from the other EPNs involved with material handling are equipped with fabric filter dust collectors with an outlet grain PM loading limit of 0.01 grains per dry standard cubic foot (gr/dscf). Natural gas limited to 5 gr sulfur per 100 dscf is used for natural gas-fired units. The controls are considered reasonable given the age, size, and impact of emissions from the facility.

As discussed in Title V Table above, Title V Periodic Monitoring and Compliance Assurance monitoring apply, and require monthly observations of opacity from the MAINSTACK, quarterly observations of other EPNs, and daily monitoring of pressure drop of fabric filters which are used to demonstrate compliance with the permit limits.

**Permit Concurrence and Related Authorization Actions**

Is the applicant in agreement with special conditions?	<b>Yes</b>
Company representative(s):	<b>Kristin Bahus &amp; Amy Clyde</b>
Contacted Via:	<b>Email &amp; phone</b>
Date of contact:	<b>11/25/2014, 1/14/2015</b>
Other permit(s) or permits by rule affected by this action:	<b>None</b>
List permit and/or PBR number(s) and actions required or taken:	<b>None</b>

Laura Gibson	6/5/2015		
Project Reviewer	Date	Team Leader/Section Manager/Backup	Date



# Compliance History Report

**PENDING** Compliance History Report for CN600356372, RN102609724, Rating Year 2014 which includes Compliance History (CH) components from September 1, 2009, through August 31, 2014.

<b>Customer, Respondent, or Owner/Operator:</b>	CN600356372, Cabot Norit Americas, Inc.	<b>Classification:</b> SATISFACTORY	<b>Rating:</b> 6.84
<b>Regulated Entity:</b>	RN102609724, MARSHALL PLANT	<b>Classification:</b> SATISFACTORY	<b>Rating:</b> 7.94
<b>Complexity Points:</b>	25	<b>Repeat Violator:</b> NO	
<b>CH Group:</b>	05 - Chemical Manufacturing		
<b>Location:</b>	3200 UNIVERSITY AVE MARSHALL, TX 75670-4842, HARRISON COUNTY		
<b>TCEQ Region:</b>	REGION 05 - TYLER		

**ID Number(s):**

**POLLUTION PREVENTION PLANNING ID NUMBER**  
P02060

**WASTEWATER EPA ID** TX0000710

**INDUSTRIAL AND HAZARDOUS WASTE SOLID WASTE REGISTRATION # (SWR)** 30101

**AIR NEW SOURCE PERMITS PERMIT** 3068A

**AIR NEW SOURCE PERMITS REGISTRATION** 41090

**AIR NEW SOURCE PERMITS AFS NUM** 4820300001

**AIR NEW SOURCE PERMITS PERMIT** 56552

**AIR NEW SOURCE PERMITS REGISTRATION** 78103

**AIR NEW SOURCE PERMITS EPA PERMIT** PSDTX1183

**AIR NEW SOURCE PERMITS REGISTRATION** 95581

**AIR NEW SOURCE PERMITS REGISTRATION** 119095

**AIR NEW SOURCE PERMITS REGISTRATION** 112509

**AIR NEW SOURCE PERMITS REGISTRATION** 110066

**AIR OPERATING PERMITS PERMIT** 3335

**STORMWATER PERMIT** TXR05AQ01

**WASTEWATER PERMIT** WQ0000703000

**INDUSTRIAL AND HAZARDOUS WASTE EPA ID**  
TXD008050189

**AIR NEW SOURCE PERMITS PERMIT** 2265A

**AIR NEW SOURCE PERMITS PERMIT** 5725A

**AIR NEW SOURCE PERMITS ACCOUNT NUMBER** HH0019H

**AIR NEW SOURCE PERMITS REGISTRATION** 56497

**AIR NEW SOURCE PERMITS REGISTRATION** 72698

**AIR NEW SOURCE PERMITS PERMIT** 78421

**AIR NEW SOURCE PERMITS REGISTRATION** 89199

**AIR NEW SOURCE PERMITS REGISTRATION** 102514

**AIR NEW SOURCE PERMITS REGISTRATION** 112511

**AIR NEW SOURCE PERMITS REGISTRATION** 106336

**AIR OPERATING PERMITS ACCOUNT NUMBER** HH0019H

**AIR OPERATING PERMITS PERMIT** 3335

**AIR EMISSIONS INVENTORY ACCOUNT NUMBER**  
HH0019H

**Compliance History Period:** September 01, 2009 to August 31, 2014 **Rating Year:** 2014 **Rating Date:** 09/01/2014

**Date Compliance History Report Prepared:** October 02, 2014

**Agency Decision Requiring Compliance History:** Permit - Issuance, renewal, amendment, modification, denial, suspension, or revocation of a permit.

**Component Period Selected:** September 01, 2009 to August 31, 2014

**TCEQ Staff Member to Contact for Additional Information Regarding This Compliance History.**

**Name:** TCEQ Staff Member

**Phone:** (512) 239-1000

**Site and Owner/Operator History:**

- 1) Has the site been in existence and/or operation for the full five year compliance period? YES
- 2) Has there been a (known) change in ownership/operator of the site during the compliance period? NO
- 3) If **YES** for #2, who is the current owner/operator? N/A
- 4) If **YES** for #2, who was/were the prior owner(s)/operator(s)? N/A
- 5) If **YES**, when did the change(s) in owner or operator occur? N/A

**Components (Multimedia) for the Site Are Listed in Sections A - J**

**A. Final Orders, court judgments, and consent decrees:**

- 1 Effective Date: 04/11/2010 ADMINORDER 2009-1722-AIR-E (1660 Order-Agreed Order With Denial)  
Classification: Minor  
Citation: 30 TAC Chapter 101, SubChapter F 101.201(a)(2)(F)  
30 TAC Chapter 122, SubChapter B 122.143(4)  
5C THSC Chapter 382 382.085(b)  
Rqmt Prov STC 2F OP  
Description: Failure to list all individually listed compounds on the initial notification which were known through process knowledge to have exceeded the reportable quantity during the emissions event. The initial notification for Incident # 118423 only listed carbon monoxide, but the final notification included hydrogen sulfide and particulate matter, both above the reportable quantities.  
Classification: Minor  
Citation: 30 TAC Chapter 101, SubChapter F 101.201(b)  
30 TAC Chapter 122, SubChapter B 122.143(4)  
5C THSC Chapter 382 382.085(b)  
Rqmt Prov STC 2F OP  
Description: Failure to submit the final report within two weeks after the end of the emissions event. The emissions event for Incident # 118423 ended on January 5, 2009 and was due to be submitted by January 19, 2009, but the final report was not submitted until March 20, 2009 (60 days after the final was due). 30 TAC 101.201(b) requires that the final report be submitted no later than two weeks after the end of the event.  
Classification: Moderate  
Citation: 30 TAC Chapter 116, SubChapter B 116.115(b)(2)(F)  
30 TAC Chapter 116, SubChapter B 116.115(c)  
30 TAC Chapter 122, SubChapter B 122.143(4)  
5C THSC Chapter 382 382.085(b)  
Rqmt Prov SC 1 PERMIT  
STC 6 OP  
Description: Failure to prevent unauthorized emissions during an emissions event (Incident # 118423) at Kiln 5. Since NORIT failed to properly report the emissions event as described above, the affirmative defense was not met pursuant to 30 TAC 101.222(b)(1). During the event, NORIT released a total of 10,180 pounds of carbon monoxide (CO), a total of 256 pounds of hydrogen sulfide (H2S), and a total of 2,400 pounds of particulate matter (PM) over a 12 hour period.
- 2 Effective Date: 08/30/2010 ADMINORDER 2010-0345-AIR-E (1660 Order-Agreed Order With Denial)  
Classification: Major  
Citation: 30 TAC Chapter 122, SubChapter B 122.121  
30 TAC Chapter 122, SubChapter B 122.133(2)  
30 TAC Chapter 122, SubChapter B 122.143(4)  
30 TAC Chapter 122, SubChapter C 122.241(b)  
5C THSC Chapter 382 382.054  
5C THSC Chapter 382 382.085(b)  
Rqmt Prov Federal Operating Permit No. O-1379 OP  
Description: Failure to submit an application for renewal at least six months prior to expiration of a Federal Operating Permit ("FOP") and continued to operate the Plant after the permit expired. Specifically, the Respondent failed to renew FOP No. O-1379 before the permit expiration date of November 17, 2009.  
Classification: Moderate  
Citation: 30 TAC Chapter 122, SubChapter B 122.143(15)  
30 TAC Chapter 122, SubChapter B 122.143(4)  
30 TAC Chapter 122, SubChapter B 122.165(a)(7)  
5C THSC Chapter 382 382.085(b)  
Rqmt Prov General Terms and Conditions OP  
Description: Failure to include the Certification by a Responsible Official with the March 1, 2009 through August 31, 2009 deviation report.
- 3 Effective Date: 03/03/2012 ADMINORDER 2011-0850-AIR-E (1660 Order-Agreed Order With Denial)  
Classification: Moderate  
Citation: 30 TAC Chapter 116, SubChapter B 116.115(c)  
5C THSC Chapter 382 382.085(b)  
Rqmt Prov Special Condition 1(A) PERMIT  
Special Condition 5(C)(1) PA  
Special Condition 8(E) PA  
Description: Failed to comply with permitted emission rates, maximum outlet grain loading limit, and control efficiencies during a stack test conducted on December 21, 2010 on the Multi-Hearth Furnace No. 2 Stack (EPN MHF2STACK).  
Classification: Moderate  
Citation: 30 TAC Chapter 116, SubChapter B 116.115(c)  
5C THSC Chapter 382 382.085(b)

Rqmt Prov Special Conditions 1(A) and 5(C)(1) PA

Description: Failed to comply with permitted emission rates and the maximum outlet grain loading limit during a stack test conducted on December 20, 2010 on the Multi-Hearth Furnace No. 2 Feed Bin [Emission Point Number ("EPN") M2FDBNDCVT].

4 Effective Date: 03/06/2014 ADMINORDER 2013-1533-AIR-E (1660 Order-Agreed Order With Denial)

Classification: Moderate

Citation: 30 TAC Chapter 101, SubChapter F 101.201(a)(1)(B)  
5C THSC Chapter 382 382.085(b)

Rqmt Prov General Terms and Conditions OP  
Special Terms and Conditions 2 OP

Description: Failure to properly notify the Tyler Regional Office of a reportable emissions event during the localized fire at MHF3 Cyclone #1.

Classification: Moderate

Citation: 30 TAC Chapter 101, SubChapter A 101.20(3)  
30 TAC Chapter 116, SubChapter B 116.115(b)(2)(F)  
30 TAC Chapter 116, SubChapter B 116.115(c)  
30 TAC Chapter 122, SubChapter B 122.143(4)  
5C THSC Chapter 382 382.085(b)

Rqmt Prov General Terms and Conditions OP  
Special Terms and Conditions 2 OP

Description: Failure to prevent unauthorized emissions during the localized fire at MHF3 Cyclone #1.

Classification: Moderate

Citation: 30 TAC Chapter 116, SubChapter B 116.115(b)(2)(F)  
30 TAC Chapter 122, SubChapter B 122.143(4)  
5C THSC Chapter 382 382.085(b)

Rqmt Prov GC OP

Description: Failure to maintain the Ammonia (NH3) 2.75 lb/hr allowable emission rate at the Multi-Hearth Furnace No. 2 Stack (EPN MHF2STACK) below NSR Permit No. 102514 limits.

**B. Criminal convictions:**

N/A

**C. Chronic excessive emissions events:**

N/A

**D. The approval dates of investigations (CCEDS Inv. Track. No.):**

Item 1	October 12, 2009	(778693)
Item 2	October 13, 2009	(778676)
Item 3	October 20, 2009	(803984)
Item 4	November 18, 2009	(803986)
Item 5	November 24, 2009	(803985)
Item 6	December 21, 2009	(803988)
Item 7	December 30, 2009	(803983)
Item 8	January 11, 2010	(787332)
Item 9	January 16, 2010	(803989)
Item 10	February 16, 2010	(803982)
Item 11	March 23, 2010	(830605)
Item 12	April 17, 2010	(830606)
Item 13	May 13, 2010	(830607)
Item 14	May 20, 2010	(802609)
Item 15	June 17, 2010	(846174)
Item 16	July 16, 2010	(860771)
Item 17	July 23, 2010	(841721)
Item 18	July 29, 2010	(841640)
Item 19	August 17, 2010	(866736)
Item 20	September 07, 2010	(849995)
Item 21	October 04, 2010	(865559)
Item 22	October 14, 2010	(881414)
Item 23	October 28, 2010	(870691)
Item 24	November 01, 2010	(872197)

**Pending** Compliance History Report for CN600356372, RN102609724, Rating Year 2014 which includes Compliance History (CH) components from September 01, 2009, through August 31, 2014.

Item 25	November 15, 2010	(887944)
Item 26	December 13, 2010	(881314)
Item 27	December 16, 2010	(896137)
Item 28	December 21, 2010	(884490)
Item 29	January 17, 2011	(902214)
Item 30	February 08, 2011	(894536)
Item 31	February 17, 2011	(908990)
Item 32	March 14, 2011	(916255)
Item 33	March 23, 2011	(907054)
Item 34	April 14, 2011	(924529)
Item 35	May 18, 2011	(937933)
Item 36	June 14, 2011	(923010)
Item 37	June 17, 2011	(945244)
Item 38	July 12, 2011	(952530)
Item 39	August 19, 2011	(959213)
Item 40	August 25, 2011	(949340)
Item 41	September 17, 2011	(965216)
Item 42	October 17, 2011	(971284)
Item 43	November 18, 2011	(977441)
Item 44	December 20, 2011	(984212)
Item 45	January 20, 2012	(990502)
Item 46	February 06, 2012	(982735)
Item 47	February 20, 2012	(997874)
Item 48	February 27, 2012	(988766)
Item 49	March 13, 2012	(993694)
Item 50	March 19, 2012	(1003388)
Item 51	April 04, 2012	(994268)
Item 52	April 13, 2012	(997381)
Item 53	April 19, 2012	(1009954)
Item 54	May 17, 2012	(1016351)
Item 55	June 18, 2012	(1024075)
Item 56	June 22, 2012	(1013518)
Item 57	August 13, 2012	(1023795)
Item 58	October 22, 2012	(1060571)
Item 59	November 26, 2012	(1060572)
Item 60	November 28, 2012	(1041510)
Item 61	December 18, 2012	(1051283)
Item 62	December 19, 2012	(1060570)
Item 63	December 27, 2012	(1060573)
Item 64	January 14, 2013	(1053571)
Item 65	January 22, 2013	(1078779)
Item 66	January 24, 2013	(1053517)
Item 67	February 20, 2013	(1078778)
Item 68	March 19, 2013	(1089212)
Item 69	April 24, 2013	(1095605)
Item 70	May 21, 2013	(1106531)
Item 71	June 25, 2013	(1110208)
Item 72	July 23, 2013	(1117087)
Item 73	August 22, 2013	(1124845)
Item 74	September 20, 2013	(1129449)
Item 75	October 22, 2013	(1135176)
Item 76	November 19, 2013	(1140578)
Item 77	December 18, 2013	(1147033)
Item 78	February 19, 2014	(1160439)
Item 79	February 26, 2014	(1144896)
Item 80	March 20, 2014	(1167087)
Item 81	April 16, 2014	(1158138)
Item 82	April 17, 2014	(1174220)
Item 83	May 19, 2014	(1180408)
Item 84	June 18, 2014	(848830)

**Pending** Compliance History Report for CN600356372, RN102609724, Rating Year 2014 which includes Compliance History (CH) components from September 01, 2009, through August 31, 2014.



Emission Sources - Maximum Allowable Emission Rates

Permit Number 56552

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
MAINSTACK	Kilns 2, 3, and 4 and Waste Heat Boiler Nos. 5, 6, and 7	NO <sub>x</sub>	113.77	498.31
		CO (5)	83.5	365.73
		SO <sub>2</sub>	78	342
		PM <sub>10</sub>	27.1	118.69
		PM <sub>2.5</sub>	24.9	108.9
		VOC	22.14	96.98
K2FUGITIVE	Kiln 2 Fugitives (6)	PM <sub>10</sub>	< 0.01	< 0.01
		PM <sub>2.5</sub>	< 0.01	< 0.01
K3FUGITIVE	Kiln 3 Fugitives (6)	PM <sub>10</sub>	< 0.01	< 0.01
		PM <sub>2.5</sub>	< 0.01	< 0.01
K4FUGITIVE	Kiln 4 Fugitives (6)	PM <sub>10</sub>	< 0.01	< 0.01
		PM <sub>2.5</sub>	< 0.01	< 0.01
K2EMERSTK	Maintenance / Start-Up / Shutdown Kiln 2	NO <sub>x</sub>	---	0.1
		CO	---	15.3
		SO <sub>2</sub>	---	0.02
		PM <sub>10</sub>	---	2.9
		PM <sub>2.5</sub>	---	2.7
		VOC	---	3.6
		H <sub>2</sub> S	---	0.6
K3EMERSTK	Maintenance / Start-Up / Shutdown Kiln 3	NO <sub>x</sub>	---	0.1
		CO	---	15.3
		SO <sub>2</sub>	---	0.02
		PM <sub>10</sub>	---	2.9

## Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		PM <sub>2.5</sub>	---	2.7
		VOC	---	3.6
		H <sub>2</sub> S	---	0.6
K4EMERSTK	Maintenance / Start-Up / Shutdown Kiln 4	NO <sub>x</sub>	---	0.1
		CO	---	15.3
		SO <sub>2</sub>	---	0.02
		PM <sub>10</sub>	---	2.9
		PM <sub>2.5</sub>	---	2.7
		VOC	---	3.6
		H <sub>2</sub> S	---	0.6
ASHPIT	Ashpit Fugitives (6)	PM <sub>10</sub>	< 0.01	< 0.01
		PM <sub>2.5</sub>	< 0.01	< 0.01
REFRACPIT	Refractory Pit Fugitives (6)	PM <sub>10</sub>	< 0.01	< 0.01
		PM <sub>2.5</sub>	< 0.01	< 0.01
AREAADCVNT	Lignite Furnace Product (LFP) Conveyors from Kilns 2, 3, and 4	PM <sub>10</sub>	0.51	2.25
		PM <sub>2.5</sub>	0.05	0.22
1BKBNDCSK	No. 1 Bulk Bin Dust Collector Stack	PM <sub>10</sub>	0.1	0.45
		PM <sub>2.5</sub>	0.01	0.04
2BKBNDCSK	No. 2 Bulk Bin Dust Collector Stack	PM <sub>10</sub>	0.1	0.45
		PM <sub>2.5</sub>	0.01	0.04
HDRBNSDCSK	HydroDarco (HDR) Blend Bins Dust Collector Stack	PM <sub>10</sub>	0.03	0.11
		PM <sub>2.5</sub>	< 0.01	0.01
FGTVSTORAG	General Plant Fugitive Emissions	PM <sub>10</sub>	< 0.01	< 0.01
		PM <sub>2.5</sub>	< 0.01	< 0.01
HCLSRBRVNT	Main HCl Storage Tanks Scrubber Vent	PM <sub>10</sub>	0.19	0.83
		PM <sub>2.5</sub>	0.18	0.8

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
LIMETANK2	Lime Tank No. 2	PM <sub>10</sub>	0.02	0.09
		PM <sub>2.5</sub>	0.01	0.03
GASFUELING	Gasoline Fueling Pump	VOC	4.62	0.5
DIESFUELING	Diesel Fueling Pump	VOC	0.46	0.05

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- NO<sub>x</sub> - total oxides of nitrogen
- SO<sub>2</sub> - sulfur dioxide
- PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented
- PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented
- PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide
- H<sub>2</sub>S - hydrogen sulfide
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) The CO concentration from EPN MAINSTACK shall be calculated on a 30 day rolling average.
- (6) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: October 8, 2015

## Special Conditions

Permit Number 56552

### Operating Restrictions

1. This permit authorizes the continued operation of existing facilities and activities in support of an activated carbon manufacturing plant located at 3200 University Avenue in Marshall, Texas. This permit covers only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and those sources are limited to the emission limits and other conditions specified in that attached table. The annual rates are based on a rolling 12-month period.

If any condition or limitation of this permit or of any Texas Commission on Environmental Quality (TCEQ) regulation is more stringent than another, then the more stringent condition or limitation shall govern and be the standard by which compliance will be demonstrated.

2. The combined feed rate of lignite to the kilns covered by this permit shall not exceed the pounds per hour or tons per year feed rates represented in the confidential portion of the August 26, 2003 permit application. This permit does not limit the feed rate to an individual kiln.

### 3. Opacity / Visible Emission Limitations

- A. During normal operations, the opacity of emissions from any point shall not exceed the limits in the table below, except for those periods described in Title 30 Texas Administrative Code (30 TAC) § 111.111(a)(1)(E).

Source	Emission Point Numbers (EPNs)	Opacity Limit <sup>1</sup>	Rule
Kilns 2, 3, and 4	MAINSTACK	15%	30 TAC §111.111(a)(1)(C)
LFP Conveyors from Kilns 2, 3, and 4	AREAADCVNT	20%	30 TAC §111.111(a)(1)(B)
Other Stationary Vents	K2EMERSTK, K3EMERSTK, K4EMERSTK, 1BKBNDCSK, 2BKBNDCSK, HDRBNSDCSK, HCLSRBRVNT, LIMETANK2	30%	30 TAC §111.111(a)(1)(A)

<sup>1</sup> For any six-minute period.

- B. Compliance with the opacity limits is determined:
  - (1) For EPN MAINSTACK, by monthly observations per Title 40 Code of Federal Regulations Part 60 (40 CFR 60), Appendix A, Test Method 9.
  - (2) For EPN AREAADCVNT, by daily pressure drop monitoring per periodic monitoring procedures specified in the federal operating permit for this site (FOP), FOP No. O3335.

- (3) For other stationary vents, opacity determination shall be made by first observing for visible emissions while each facility is in operation. Observations shall be made at least 15 feet and no more than 0.25 miles from the emission point. If visible emissions are observed from an emission point, then the opacity shall be determined and documented within 24 hours for that emission point using 40 CFR Part 60, Appendix A, Test Method 9. Contributions from uncombined water shall not be included in determining compliance with this condition. Observations shall be performed and recorded quarterly. If the opacity exceeds the referenced limit, corrective action to eliminate the source of visible emissions shall be taken promptly and documented within one week of first observation.
4. This facility shall not produce a nuisance that may cause or contribute to a condition of "air pollution" as defined in 30 TAC § 101.4 of the General Rules as adopted by the TCEQ. If such a condition does occur, additional controls may be required.
5. The permit holder shall notify the TCEQ Regional Office of any upset conditions which cause emissions to exceed the emissions listed in the maximum allowable emission rates table as soon as possible.
6. Particulate matter (PM) collected from dust collectors shall be handled in such a manner as to prevent them from becoming airborne as far as is practicable. Particulate matter grain (gr) loading exhaust from any dust collector shall not exceed 0.01 gr per dry standard cubic foot (dscf) of air.
7. All air pollution abatement and collection equipment for the facility covered by this permit shall be properly maintained and operated during the operation of these facilities. Cleaning and maintenance of the abatement equipment shall be performed as recommended by the manufacturer and as necessary so that the equipment efficiency can be adequately maintained. The hourly and annual throughput of hydrochloric acid, sodium hydroxide, and hydrated lime shall be determined by process conditions and shall not be limited to the rates represented in the permit application.
8. The permit holder is limited to firing sweet natural gas not to exceed 5 gr of sulfur per 100 dscf, hourly average, as well as combustible gases and PM generated by the activation process in Kiln Nos. 2, 3, and 4 and in Waste Heat Boiler Nos. 5, 6, and 7. The hourly and annual throughput shall be determined by process conditions and shall not be limited to the rate represented in the permit application.
9. The saturator and venturi shall operate when the rotary kiln is operational. Sufficient water shall be provided to the saturator and venturi so that they may perform as represented in the permit application dated August 26, 2003. Sufficient scrubber liquid flow within the established pH range and a sufficient pressure drop shall be provided to the venturi so that it may perform as represented in the permit application dated August 23, 2003. The acceptable range of scrubber liquid flow, scrubber liquid pH, and pressure drop shall be established by the holder of this permit.

10. The Emergency Stacks (EPNs K2EMERSTK, K3EMERSTK, AND K4EMERSTK) may only be used during emergencies, upset conditions, or periods of maintenance or during start-up or shutdown when no lignite is being fed to the kilns. The permit holder shall notify the TCEQ Regional Office that the emergency stack is in use according to 30 TAC §§ 101.201 and 101.211.

### **Continuous Determination of Compliance**

11. The records required in Special Condition No. 12 shall constitute the method of demonstrating continuous compliance with the limits specified in the special conditions.

### **Recordkeeping Requirements**

12. The following records shall be maintained on-site for a rolling five-year period and made available upon request by representatives of the TCEQ or local air pollution control agency with jurisdiction:
  - A. Records of lignite feed rates to Kiln Nos. 2, 3, and 4. In addition, the confidential application, containing the permitted lignite feed rate, shall be kept on-site and made available at the request of personnel from the TCEQ or any local air pollution control agency with jurisdiction.
  - B. Pursuant to Special Condition No. 4, records to identify cleaning and any repairs or maintenance work performed on the abatement equipment, with emphasis given to the amount of time elapsing, until the repairs or corrections are made.
  - C. An annual gas analysis conducted by the gas supplier to demonstrate compliance with Special Condition No. 8.
  - D. Records of process and control equipment parameter monitoring including venturi scrubber liquid flow rate, scrubber liquid pH, and pressure drop across the scrubber.
  - E. Records (starting with issuance of renewed permit) of opacity measurements as described and specified in Special Condition No. 3.B.
13. A copy of this permit shall be kept at the plant site and made available at the request of personnel from the TCEQ or any local air pollution control agency with jurisdiction.

Date: October 8, 2015