

Bryan W. Shaw, Ph.D., *Chairman*  
Buddy Garcia, *Commissioner*  
Carlos Rubinstein, *Commissioner*  
Mark R. Vickery, P.G., *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

December 18, 2009

LaDonna Castañuela, Chief Clerk  
Texas Commission on Environmental Quality  
P.O. Box 13087, MC 105  
Austin, Texas 78711-3087

Re: ED's Decision on Hearing Requests on Aggregate Industries-WCR, Inc., Air Quality  
Permit No. 83755  
TCEQ Docket No. 2009-1842-AIR

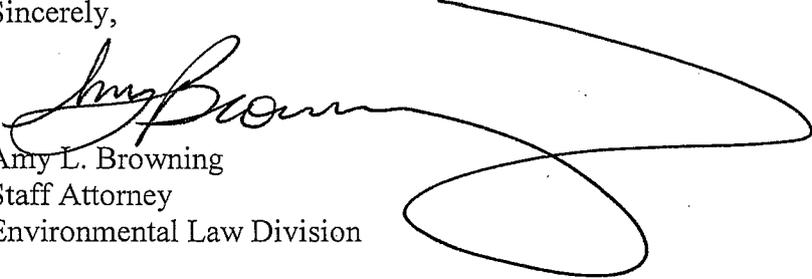
Dear Ms. Castañuela:

Enclosed please find a copy of the following documents for inclusion in the background material for this permit application:

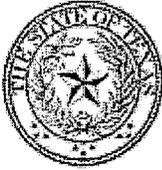
- Final Draft Permit, including any special provisions or conditions
- Maximum Allowable Emission Rate Table (MAERT)
- The summary of the technical review of the permit application
- The modeling audit memoranda
- The compliance summary of the applicant

If you have any questions, please do not hesitate to call me at extension 0891.

Sincerely,

  
Amy L. Browning  
Staff Attorney  
Environmental Law Division

Enclosure



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AIR QUALITY PERMIT



*A PERMIT IS HEREBY ISSUED TO*  
**Aggregate Industries-WCR, Inc.**  
*AUTHORIZING THE CONSTRUCTION AND OPERATION OF*  
**Rock Crushing Plant**  
*LOCATED AT* New Braunfels, Comal County, Texas  
**LATITUDE 29° 39' 55" LONGITUDE 096° 12' 30"**

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code § 116.116 (30 TAC § 116.116)]
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120(a), (b) and (c)]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify to the Office of Permitting and Registration the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]
6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)]
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with §§ 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC § 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. This permit may be appealed pursuant to 30 TAC § 50.139.
12. This permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
13. There may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
14. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in TCAA § 382.003(3) or violate TCAA § 382.085, as codified in the Texas Health and Safety Code. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.

PERMIT 83755

Date: \_\_\_\_\_

\_\_\_\_\_  
For the Commission

## SPECIAL CONDITIONS

Permit Number 83755

### EMISSION STANDARDS and FUEL SPECIFICATIONS

1. 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 the attached table.
2. All equipment shall comply with all requirements of the U.S. Environmental Protection Agency (EPA) regulations in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subparts A and OOO on Standards of Performance for New Stationary Sources (NSPS) promulgated for Nonmetallic Mineral Processing Plants except as otherwise represented in the permit application.
3. This permit does not authorize the operation of a stationary internal combustion engine in conjunction with this facility. The holder of this permit shall obtain prior authorization for any engine which remains or will remain at a single point or location for more than 12 consecutive months. Any portable engine which remains or will remain at a single point or location for less than or equal to 12 consecutive months is not considered stationary and no authorization is required.

### OPACITY/VISIBLE EMISSION LIMITATIONS

4. No visible fugitive emissions from the crushers, screens, transfer points on belt conveyors, material storage areas, feed bins, loadout bins, surge bins, hoppers, stockpiles, or internal roads and work areas shall leave the property. Visible fugitive emission is defined as emissions that shall not exceed a cumulative 30 seconds in duration in any six-minute period as determined using EPA Test Method (TM) 22. If this condition is violated, additional controls or process changes may be required to limit visible particulate matter (PM) emissions.
5. Opacity of emissions from any transfer point on belt conveyors (except those listed in Special Condition 6D) or any screen (except those listed in Special Condition 6C) shall not exceed seven percent and from any crusher shall not exceed 12 percent, averaged over a six-minute period as determined by EPA TM 9 or equivalent.

SPECIAL CONDITIONS

Permit Number 83755

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OPERATIONAL REPRESENTATIONS

6. As represented by the applicant, the following shall occur:

- A. Throughput at this facility is limited to 2000 tons per hour (tph) and 5,000,000 tons per year (tpy) in any rolling 12-month period with throughput limits for each crusher as listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates."
- B. Permanently mounted spray bars shall be installed at the inlet and outlet of all crushers, at all shaker screens, and at all material transfer points, except for those designated by EPNs listed in Special Conditions Nos. 6C, 6D, 6E, and 6F.

Area-type water sprays shall be installed at the primary plant stockpiles designated as Stockpiles A, B, C, and D and at the surge piles designated as Stockpiles E and G. All other stockpiles and active work areas shall be watered by a water truck or treated with dust-suppressant chemicals as necessary to control dust.

All water spray systems shall be operated as necessary to maintain compliance with TCEQ rules and regulations.

- C. There shall be no visible emissions from the following screens that have been designated to be operating under saturated conditions: Screen 11 (EPN 78), Screen 12 (EPN 76), Screen 13 (EPN 94), Screen 14 (EPN 96), Screen 15 (EPN 84), and Screen 16 (EPN 86).
- D. There shall be no visible emissions from the conveyor transfer points defined as EPNs 75, 77, 79 - 81, 85, 87, 88, 95, 97 - 103, and 112 that have been designated to be operating under saturated conditions.
- E. Partial enclosures shall be utilized on Screens 3, 4, 5 and 6, designated as EPNs 42, 40, 38, and 36 respectively. Each screen partial enclosure shall consist of an enclosed drop into the screen, covered screen deck, metal screen sidewalls and enclosed chutes out of the screen.

Partial enclosures shall also be utilized on VSI Crushers 2 and 3, designated as EPNs 34 and 32, and on Cone Crushers 1 and 2, designated as EPNs 50 and 52. Each crusher partial enclosure shall consist of metal sidewalls extended above the crusher at the inlet, rubber skirting at the outlet of the crusher on the conveyor beneath the crusher, and box cover of the conveyor beneath the crusher.

## SPECIAL CONDITIONS

Permit Number 83755

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All screen and crusher partial enclosure hardware and covers shall be in place at all times when the facilities are operating.

- F. There shall be no emissions from the submerged Classifiers nor Sand Screws.
- G. In-plant roads designated as PRD 1 through PRD 4 shall be paved with a cohesive hard surface which can be cleaned by sweeping or washing. Upon detection of visible particulate emissions, these paved roads will be watered or swept to maintain compliance with all TCEQ rules and regulations.
- H. In-plant roads designated as URD 1 and URD 2 and all other traffic areas and active work areas shall be sprayed with water and/or environmentally sensitive chemicals upon detection of visible particulate emissions to maintain compliance with all TCEQ rules and regulations.
- I. An operational water truck shall be maintained on site at all times.
- J. All stockpiles shall be sprayed with water and/or environmentally sensitive chemicals upon detection of visible particulate emissions to maintain compliance with all TCEQ rules and regulations.
- K. Stockpile heights are site specific and, with the exception of the surge piles designated as Stockpiles E and G, shall not exceed 45 feet in height unless approved by the TCEQ Regional Office and/or any appropriate local air programs with delegation.

The surge pile designated as Stockpile E shall not exceed 90 feet in height and shall be no closer than 700 feet from the nearest property line. The surge pile designated as Stockpile G shall not exceed 60 feet in height and shall be no closer than 500 feet from the nearest property line.

- L. A wheel wash station shall be installed and operated. This station shall direct water sprays onto the undercarriage of product trucks to remove mud and/or road dust and shall be utilized on all product trucks leaving the site.

## DETERMINATION OF COMPLIANCE

- 7. Upon initial issuance, the permit holder shall comply with NSPS Subpart A and OOO requirements within the specified time frame. Requests for additional time to perform observations shall be submitted in writing to the TCEQ Regional Office. Requests for

SPECIAL CONDITIONS

Permit Number 83755

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additional time to comply with the applicable requirements of 40 CFR Part 60 require EPA approval and shall be submitted in writing to the TCEQ Compliance Support Division.

8. Upon request of the TCEQ Regional Director having jurisdiction, the holder of this permit shall perform ambient air monitoring, or other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere. The tests shall be performed during normal operation of the facilities and shall be performed in accordance with accepted TCEQ practices and procedures.

RECORDKEEPING REQUIREMENTS

9. In addition to the record keeping requirements specified in General Condition No. 7 and 40 CFR Part 60, Subparts A and OOO, the following records shall be kept and maintained on site for a rolling 24-month period:
  - A. Daily, monthly and annual amounts of materials processed, summarized in tons per hour, tons per month and tons per year;
  - B. Hours of operation;
  - C. Daily road cleaning, daily application of road dust control, or daily road maintenance for dust control; and
  - D. Records of all repairs and maintenance of abatement systems.

Dated \_\_\_\_\_

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 83755

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. 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 *	
			lb/hr	TPY**
5	Jaw Crusher 1 (4)	PM	0.21	0.26
		PM <sub>10</sub>	0.10	0.13
6	Jaw Crusher 2 (4)	PM	0.21	0.26
		PM <sub>10</sub>	0.10	0.13
18	VSI Crusher 1 (4)	PM	0.24	0.30
		PM <sub>10</sub>	0.11	0.14
34	VSI Crusher 2 (4)	PM	0.14	0.17
		PM <sub>10</sub>	0.06	0.08
32	VSI Crusher 3 (4)	PM	0.14	0.17
		PM <sub>10</sub>	0.06	0.08
50	Cone Crusher 1 (4)	PM	0.09	0.11
		PM <sub>10</sub>	0.04	0.05
52	Cone Crusher 2 (4)	PM	0.09	0.11
		PM <sub>10</sub>	0.04	0.05
9	Screen 1 (4)	PM	2.20	2.75
		PM <sub>10</sub>	0.74	0.93
11	Screen 2 (4)	PM	2.64	3.30
		PM <sub>10</sub>	0.89	1.11
36	Screen 6 (4)	PM	0.21	0.26
		PM <sub>10</sub>	0.07	0.09
38	Screen 5 (4)	PM	0.21	0.26
		PM <sub>10</sub>	0.07	0.09

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
40	Screen 4 (4)	PM	0.21	0.26
		PM <sub>10</sub>	0.07	0.09
42	Screen 3 (4)	PM	0.21	0.26
		PM <sub>10</sub>	0.07	0.09
55	Screen 7 (4)	PM	0.42	0.52
		PM <sub>10</sub>	0.14	0.18
58	Screen 8 (4)	PM	0.42	0.52
		PM <sub>10</sub>	0.14	0.18
61	Screen 9 (4)	PM	0.42	0.52
		PM <sub>10</sub>	0.14	0.18
64	Screen 10 (4)	PM	0.42	0.52
		PM <sub>10</sub>	0.14	0.18
76	Screen 12 (4)	PM	0.01	0.02
		PM <sub>10</sub>	<0.01	0.01
78	Screen 11 (4)	PM	0.01	0.02
		PM <sub>10</sub>	<0.01	0.01
84	Screen 15 (4)	PM	0.13	0.16
		PM <sub>10</sub>	0.05	0.06
86	Screen 16 (4)	PM	0.13	0.16
		PM <sub>10</sub>	0.05	0.06
94	Screen 13 (4)	PM	0.10	0.12
		PM <sub>10</sub>	0.03	0.04
96	Screen 14 (4)	PM	0.10	0.12
		PM <sub>10</sub>	0.03	0.04
1, 3, 44, 91, and 103	Loading/Unloading Operations (4)	PM	0.20	0.25
		PM <sub>10</sub>	0.08	0.10
MHFUG	Material Handling (4, 5)	PM	7.25	9.06
		PM <sub>10</sub>	2.39	2.99

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
STFUG	Stockpiles (4, 6)	PM	---	21.68
		PM <sub>10</sub>	---	10.84
T-1 and T-2	10,000 gal Diesel Tanks	VOC	<0.01	0.02

- (1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
- (2) Specific point source names. For fugitive sources, use an area name or fugitive source name.
- (3) PM - particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>  
 PM<sub>10</sub> - particulate matter equal to or less than 10 microns in diameter  
 PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter  
 VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- (4) Fugitive emissions are an estimate only.
- (5) Includes emissions from Emission Point Nos. 2, 4, 7, 8, 10, 12-17, 19-31, 33, 35, 37, 39, 41, 43, 45-49, 51, 53, 54, 56, 57, 59, 60, 62, 63, 65-75, 77, 79-83, 85, 87-90, 92, 93, 95, 97-102, 104-112, 114, and 115.
- (6) Stockpile emissions are cumulative emissions from Stockpiles A through Q totaling 30.0 acres in area.

\* Emission rates are based on and the facilities are limited by the maximum operating schedule and throughput rates shown below.

\*\* Compliance with annual emission limits is based on a rolling 12-month period.

Maximum operating schedule:

24 Hrs/day, 7 Days/week, and 52 Weeks/year or 8,760 Hrs/year

Production Rates:

Jaw Crusher 1 (EPN 5):	1,000 tons/hour	2,500,000 tons/year
Jaw Crusher 2 (EPN 6):	1,000 tons/hour	2,500,000 tons/year
VSI Crusher 1 (EPN 18):	200 tons/hour	500,000 tons/year
VSI Crusher 2 (EPN 34):	750 tons/hour	1,875,000 tons/year
VSI Crusher 3 (EPN 32):	750 tons/hour	1,875,000 tons/year
Cone Crusher 1 (EPN 50):	510 tons/hour	1,275,000 tons/year
Cone Crusher 2 (EPN 52):	510 tons/hour	1,275,000 tons/year
Total Facility:	2,000 tons/hour	5,000,000 tons/year

Dated \_\_\_\_\_

## Construction Permit Source Analysis & Technical Review

Company	Aggregate Industries-WCR, Inc	Permit Number	83755
City	New Braunfels	Project Number	135402
County	Comal	Account Number	N/A
Project Type	Initial	Regulated Entity Number	RN105431662
Project Reviewer	Mr. Larry Buller, P.E.	Customer Reference Number	CN603300625
Site Name	Rock Crushing Plant		

### Project Overview

Aggregate Industries-WCR, Inc. has submitted an application for authorization of a rock crushing plant to be located near New Braunfels in Comal County. The plant will consist of seven crushers, 16 screens, a wash plant, assorted material handling conveyors and truck loading and unloading facilities. Total throughput is expected to be 2,000 tons per hour with an annual throughput of 5,000,000 tons per year. The site will operate 24 hours per day, 7 days per week and 52 weeks per year for a total of 8,760 hours per year.

The public notification resulted in 411 comment letters regarding this application. These comment letters included 213 hearing requests and 100 requests for a public meeting. No letters were received from elected public officials during the public comment period.

### Emission Summary

Air Contaminant	Current Allowable Emission Rates (tpy)	Proposed Allowable Emission Rates (tpy)	Change in Allowable Emission Rates (tpy)
PM	0.00	42.14	42.14
PM <sub>10</sub> /PM <sub>2.5</sub>	0.00	17.93	17.93
VOC	0.00	0.02	0.02

### Compliance History Evaluation - 30 TAC Chapter 60 Rules

A compliance history report was reviewed on:	December 7, 2009
Compliance period:	December 28, 2007 to December 29, 2002
Site rating & classification:	3.01 [Average by Default]
Company rating & classification:	3.01 [Average by Default]
If the rating is 40<RATING<45, 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	Is Public Notice Required?	Yes	
	Date Application Received:	December 28, 2007	
	Date Administratively Complete:	January 28, 2008	
	Small Business Source?	No	
	Date Leg Letters mailed:	January 28, 2008	
39.603	Date Published:	February 26, 2008	
	Publication Name:	New Braunfels Herald - Zeitung	
	Pollutants:	VOC, PM, PM <sub>10</sub>	
	Date Affidavits/Copies Received:	March 6, 2008	
	Is bilingual notice required?	Yes	
	Language:	Spanish	
	Date Published:	February 25, 2008	

## Construction Permit Technical Review

Permit No. 83755  
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Regulated Entity No. RN105431662

Rule Citation	Requirement	
	Publication Name:	<i>El NORTE The Community's Newspaper</i>
	Date Affidavits/Copies Received:	March 6, 2008
	Date Certification of Sign Posting / Application Availability Received:	March 27, 2008
39.604	Public Comments Received?	Yes
	Hearing Requested?	Yes
	Meeting Request?	Yes
	Date Meeting Held:	March 10, 2009
	Date Response to Comments sent to OCC:	July 1, 2009
	Request(s) withdrawn?	No
	Date Withdrawn:	NA
	Consideration of Comments:	July 1, 2009
	Is 2nd Public Notice required?	Yes
39.419	If no, give reason:	NA
	Date 2nd Public Notice Mailed:	February 17, 2009
	Preliminary Determination:	Issue the permit
39.603	Date Published:	February 25, 2009
	Publication Name:	<i>New Braunfels Herald - Zeitung</i>
	Pollutants:	VOC, PM, PM <sub>10</sub>
	Date Affidavits/Copies Received:	March 11, 2009
	Is bilingual notice required?	Yes
	Language:	Spanish
	Date Published:	February 25, 2009
	Publication Name:	<i>El NORTE The Community's Newspaper</i>
	Date Affidavits/Copies Received:	March 11, 2009
	Date Certification of Sign Posting / Application Availability Received:	March 27, 2008
	Public Comments Received?	Yes
	Meeting Request?	Yes
	Date Meeting Held:	March 10, 2009
	Hearing Request?	Yes
	Date Hearing Held:	TBD
	Request(s) withdrawn?	No
	Date Withdrawn:	No
	Consideration of Comments:	July 1, 2009
39.421	Date RTC, Technical Review & Draft Permit Conditions sent to OCC:	July 1, 2009
	Request for Reconsideration Received?	Yes
	Final Action:	Issue Permit
	Are letters Enclosed?	No



**Process/Project Description**

Raw aggregate material from the quarry is loaded into two primary hoppers [Hopper No. 1 and No. 2] by haul truck or front-end loader. Each hopper's feeder transfers the majority of the material to the respective jaw crushers [JAWCRSHR1 and JAWCRSHR2]. Material in the hoppers not requiring crushing will be transferred to a conveyor underlying each hopper. The same conveyor also collects material process by the respective jaw crushers. Each conveyor transfers material to another conveyor that delivers the aggregate material to screens, SCRN1 or SCRN2. Material sized by the screens is transferred to one of five awaiting conveyors. Sized material landing on certain conveyors will be transferred to stackers and stockpiled or transferred to gates. At these gates, the material may be transferred to either another conveyor and transferred further to the impact crusher [VICSHR1], or to a series of conveyors and stockpiled at the primary surge pile. Material process by the impact crusher [VICSHR1] is transferred to the underlying conveyor and transferred back to a gate and on to another series of conveyors to be processed until sized and stockpiled. Sized material will either be stockpiled or transferred to another series of conveyors. Material that falls through the screens [SCRN1 and SCRN2] onto underlying conveyors is transferred to an awaiting conveyor. Material on this conveyor is transferred to a radial stacker and stockpiled, or transferred to a surge bin. Material from the surge bin is transferred to a long conveyor which transfers to another long conveyor which transfers material to another surge bin. This bin transfers material to the rail loading section of the plant which will be discussed later.

Material from the surge pile is transferred to an underlying tunnel conveyor where material is transferred to another conveyor. Material from this conveyor is transferred via gate to one of two surge bins. The bins feed material to crushers, VICSHR3 and VICSHR2. Material processed by the crushers is collected by underlying conveyors and transferred via gates to one of four conveyors through feeding material to one of four screens [SCRN3-6]. Material is sized by the screens and transferred to one of seven conveyors. Material from the first deck of each screen is conveyed and transferred to another conveyor. This conveyor may also be supplemented with material fed by loader to Hopper No. 3 which transfers material to an underlying conveyor that may augment material from the first decks of SCRN3-6. Material is transferred via gate to one of two conveyors that transfer material to one of two surge bins. Material from the bins is fed to two cone crusher CONE CRSHR1 and CONE CRSHR2. Material processed by the crushers is conveyed and transferred to the gates feeding material to the conveyors preceding SCRN3-6.

Material passing through all decks of SCRN3-6 falls to one of four underlying conveyors that transfers material to one of four conveyors that feed wash screens, SCRN7-10. Material sized by the wash screens is transferred to one of seven conveyors. Material from the second and third decks of SCRN3-6 falls to one of two conveyors that transfers material to one of two stackers for stockpiling surge piles. Material from the three decks of SCRN7-10 falls to one of three conveyors and transfer material to Stockpiles 6, 7 and 8. Material passing through all decks of SCRN7-10 falls to an individual conveyor which will transfer material to a reversible conveyor. Material on the reversible conveyor may be transferred to Stockpile 9 or to another conveyor. The other conveyor transfers material via a gate to one of two classifiers, a submerged process. A portion of the material processed by the classifiers may be transferred to Stockpile 10. A portion of material will be fed to dewatering screens, SCRN11-12. Material retained on the screen decks is transferred to a conveyor. The remaining material from the classifiers falls directly to a slurry stockpile. A reversible conveyor transfers material to another conveyor which transfers material to Stockpiles 9 and 10.

Material in the six surge piles formed by Stockpiles ST4-ST9 may be transferred to one of two underlying tunnel conveyors. The rail load out portion of the facility transfers material via gate to one of two subsequent conveyors. These conveyors feed material to wash screens, SCRN15 and 16. Material retained on the screen decks is transferred to conveyors that transfer material to load out bins that transfer material via conveyors to awaiting railcars for shipment off site.

The truck load out portion of the plant begins with the second underlying tunnel conveyor which receives transferred material from the surge piles and transfers material that feeds wash screens SCRN13 and 14 via gate. Material retained on the screen decks is transferred via gate to stackers to Stockpiles 11 and 13 or transferred to another reversible conveyor. The reversible conveyor may transfer material to Stockpile 12 or to another conveyor that transfers the material via gate to load out bins.

The load out bins are used to transfer material via conveyors to awaiting trucks for shipment off site. Material passing through SCRN13-16 is gated to one of two sand screws (submerged process). The majority of the material processed by the sand screws is transferred to stackers and stockpiled. A small amount is pumped to a settling pond.

**Pollution Prevention, Sources, Controls and BACT- [30 TAC 116.111(a)(2)(C)]**

The facilities will meet BACT for plants of this type.

The aggregate being mined at the proposed site will be treated using water sprays to maintain a moisture content of greater than the required 1.5 percent by weight. The company will install water sprays at the inlet and outlet of each crusher except those which have been designated as being partially enclosed, at all screens except those which have been designated as being partially enclosed or operating under saturated conditions, and at all material transfer points except those which have been designated as being operated under saturated conditions.

All partial enclosures will be in place when the facilities are operating.

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All stockpiles will be watered with a water truck that will be functional and on site at all times. Major in-plant roads will be paved with a surface that can be cleaned by sweeping or washing. Other in-plant roads will be sprayed with water or environmentally sensitive chemicals upon detection of visible particulate emissions. A truck wheel wash station will be installed and operated to remove mud or road dust from vehicles prior to all trucks leaving the site.

### Impacts Evaluation - 30 TAC 116.111(a)(2)(J)

Was modeling conducted?	Yes	Type of Modeling:	ISCST3 (Version 02035)
Will GLC of any air contaminant cause violation of NAAQS?			No
Is this a sensitive location with respect to nuisance?		No, per site review conducted February 6, 2008 by Mr. Layne Perelli [Region 13]	
[§116.111(a)(2)(A)(ii)] Is the site within 3000 feet of any school?			No
Additional site/land use information: Rural dispersion coefficients and elevated terrain were used in the air dispersion modeling analysis			
These selections are consistent with the topographic map and aerial photography			

### Summary of Modeling Results

Site wide modeling was conducted to evaluate the concentration of particulate matter less than 10 microns in diameter [PM<sub>10</sub>]. At the 24-hour averaging time, the concentration was determined to be 64 µg/m<sup>3</sup> which, when added to the background concentration for Comal County of 75 µg/m<sup>3</sup>, resulted in an overall 24-hour PM<sub>10</sub> concentration value of 139 µg/m<sup>3</sup>. This is below the NAAQS regulated concentration limit of 150 µg/m<sup>3</sup>. For the annual averaging time, the site wide concentration was found to be 22 µg/m<sup>3</sup> which, when added to the annual concentration for Comal County of 25 µg/m<sup>3</sup>, resulted in an overall annual PM<sub>10</sub> concentration of 47 µg/m<sup>3</sup>. This, also, is lower than the NAAQS required concentration limit of 50 µg/m<sup>3</sup>. Thus, the site was determined to be protective with respect to the NAAQS criteria at both the 24-hour and the annual averaging times.

The PM<sub>10</sub> NAAQS 24-hour and annual evaluation is used as a surrogate for determination of compliance with the PM<sub>2.5</sub> NAAQS.

A subsequent air dispersion model was evaluated to determine the concentration effects of raising the stockpile heights of two stockpiles. The model assumed release height simulating a 90 ft. high stockpile in comparison to the standard 45 ft. high piles. The results indicate that the concentration levels at the site property line are lower with the higher release heights of the higher stockpiles.

All modeling was conducted by the applicant and audited by the TCEQ Air Dispersion Modeling Team.

### Permit Concurrence and Related Authorization Actions

Is the applicant in agreement with special conditions?	Yes
Company representative(s):	Mr. Tommy Mathews President, Westward Environmental, Inc.
Contacted Via:	Letter
Date of contact:	January 8, 2009
Other permit(s) or permits by rule affected by this action:	None
List permit and/or PBR number(s) and actions required or taken:	NA

Project Reviewer	Date	Team Leader/Section Manager/Backup	Date
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# Texas Commission on Environmental Quality

## INTEROFFICE MEMORANDUM

To: Larry Buller, P.E. Date: August 15, 2008  
Mechanical/Agricultural/Construction Section

Thru: Lori Wilson, Team Leader  
Air Dispersion Modeling Team (ADMT)

From: Daniel Menendez and Matt Kovar  
ADMT

Subject: Modeling Audit – Aggregate Industries West Central Region, Inc. (RN105431662)

- 1.0 Project Identification Information.  
Permit Application Number: 83755  
NSR Project Number: 135402  
ADMT Project Number: 2882  
NSRP Document Number: 365911  
County: Comal

Modeling Report: Submitted by Westward Environmental, Inc., July 2008, on behalf of Aggregate Industries West Central Region, Inc. Additional information was received August 2008.

- 2.0 Report Summary. The modeling analysis is acceptable. The results are summarized below.

Pollutant	Averaging Time	GLCmax ( $\mu\text{g}/\text{m}^3$ )	Background ( $\mu\text{g}/\text{m}^3$ )	Total Conc. = [Background + GLCmax] ( $\mu\text{g}/\text{m}^3$ )	Standard ( $\mu\text{g}/\text{m}^3$ )
PM <sub>10</sub>	24-hr	64	75	139	150
	Annual	22	25	47	50

The screening background concentrations for PM<sub>10</sub> from Comal County were used in the modeling demonstration.

- 3.0 Land Use. Rural dispersion coefficients and elevated terrain were used in the modeling analysis. These selections are consistent with the topographic map, DEMs, and aerial photography.
- 4.0 Modeling Emissions Inventory. The modeled emission point, area, and volume source parameters and rates were consistent with the modeling report. The source characterizations used to represent the sources were appropriate.

Larry Bueller, P.E.

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A low-level fugitive adjustment factor of 0.6 was applied to the modeled emission rates of all fugitive sources with a modeled release height less than 10 meters. This is consistent with TCEQ guidance for these types of sources.

The short-term fugitive emissions due to road traffic (EPN URD1, URD2, PRD1, PRD2, PRD3, and PRD4) were not included in the 24-hr modeling analysis. This is consistent with TCEQ guidance.

- 5.0 Building Wake Effects (Downwash). Input data to Building Profile Input Program (Version 04112) are consistent with the aerial photography, plot plan, and the modeling report.
- 6.0 Meteorological Data.  
Surface Station and ID: San Antonio, TX (Station #: 12921)  
Upper Air Station and ID: Del Rio, TX (Station #: 22010)  
Meteorological Dataset: 1988  
Anemometer Height: 7 meters
- 7.0 Receptor Grid. The grid modeled was sufficient in density and spatial coverage to capture representative maximum ground-level concentrations.
- 8.0 Model Used and Modeling Techniques. ISCST3 (Version 02035) was used.

Dean Word Company (RN102870367) shares a property line with Aggregate Industries West Central Region, Inc. Since a company does not contribute to a condition of air pollution at receptors located within its own property, multiple source groups were used in the modeling analysis to determine source culpability. The source group ALL represents all sources. The source group ALLNOTDW represents all sources except Dean Word Company sources. The predictions from source group ALL were evaluated at all receptors except those located within Dean Word Company. The predictions from source group ALLNOTDW were evaluated only at receptors located within Dean Word Company property. The maximum predicted concentration from the two receptor/source group combinations is reported as the GLCmax.



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Modeling Audit - Aggregate Industries West Central Region, Inc.

5.0 Meteorological Data. Stability class 4 and wind speed of 1.5 m/s were modeled. Although stability class 6 is the worst-case stability, the selection of stability class 4 is appropriate. The same stability class was used for both model runs and the use of any stability class will result in a lower GLC for the higher release height. The wind speed of 1.5 m/s is the worst-case wind speed for fugitive emissions and is appropriate for this demonstration. The National Weather Service considers wind speeds less than 1.5 m/s to be calm.

6.0 Receptor Grid. The number of receptors and distance from the sources were appropriate.

7.0 Model Used and Modeling Techniques. Screen3 (Version 96043) was used.

A unitized emission rate of 1 lb/hr was used to predict a generic impact.

# Compliance History Report

Customer/Respondent/Owner-Operator:	CN603300625	Aggregate Industries - WCR, Inc.	Classification: AVERAGE	Rating: 3.01
Regulated Entity:	RN105431662	NEW BRAUNFELS ROCK CRUSHING PLANT	Classification: AVERAGE BY DEFAULT	Site Rating: 3.01
ID Number(s):	AIR NEW SOURCE PERMITS	PERMIT	83755	
Location:	5900 FM 482, NEW BRAUNFELS, TX, 78132			
TCEQ Region:	REGION 13 - SAN ANTONIO			
Date Compliance History Prepared:	December 07, 2009			
Agency Decision Requiring Compliance History:	Permit - Issuance, renewal, amendment, modification, denial, suspension, or revocation of a permit.			
Compliance Period:	December 29, 2002 to December 28, 2007			
TCEQ Staff Member to Contact for Additional Information Regarding this Compliance History				
Name:	Larry Buller	Phone:	239 - 1890	

## Site Compliance History Components

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, who is the current owner/operator?  
N/A
4. If Yes, who was/were the prior owner(s)/operator(s) ?  
N/A
5. When did the change(s) in owner or operator occur?  
N/A
6. Rating Date: 9/1/2009 Repeat Violator: NO

## Components (Multimedia) for the Site :

- A. Final Enforcement Orders, court judgements, and consent decrees of the state of Texas and the federal government.  
N/A
  - B. Any criminal convictions of the state of Texas and the federal government.  
N/A
  - C. Chronic excessive emissions events.  
N/A
  - D. The approval dates of investigations. (CCEDS Inv. Track. No.)  
N/A
  - E. Written notices of violations (NOV). (CCEDS Inv. Track. No.)  
N/A
  - F. Environmental audits.  
N/A
  - G. Type of environmental management systems (EMSs).
  - H. Voluntary on-site compliance assessment dates.  
N/A
  - I. Participation in a voluntary pollution reduction program.  
N/A
  - J. Early compliance.  
N/A
- Sites Outside of Texas  
N/A