



Jeremiah W. (Jay) Nixon, Governor • Mark N. Templeton, Director

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

MAR 17 2010

CERTIFIED MAIL: 7008 2810 000 2015 7498
RETURN RECEIPT REQUESTED

Mr. W. Thomas Sellers, Jr.
Operations Services Manager
Martin Marietta Aggregates
800 North Cuseway Blvd., Suite 2A
Mandeville, LA 70448

RE: New Source Review Temporary Permit Request - Project Number: 2010-01-050

Installation ID Number: 157-P003
Temporary Permit Number: 032010-009
Expiration Date: June 1, 2010

Dear Mr. Sellers:

The Missouri Department of Natural Resources' Air Pollution Control Program has completed a review of your request to modify the crushing plant during replacement of the underground surge tunnel at Martin Marietta Aggregates, located in Perryville, Missouri. The Air Pollution Control Program is hereby granting your request to conduct this temporary operation at this location in accordance with Missouri State Rule 10 CSR 10-6.060(3).

According to your e-mail sent February 8, 2010, Martin Marietta Aggregates plans to replace the existing surge tunnel underneath the surge pile following the primary crusher. This activity is a like kind replacement, therefore no permit is required. However, the crushing plant must be temporarily modified to facilitate the replacement. This modification involves adding a new stacking conveyor, surge pile, 20-ton hopper and conveyor. The new stacking conveyor will create a surge pile away from the existing pile. Aggregate from the pile is transferred to the hopper via an end-loader. From the hopper, the aggregate is transferred to an existing conveyor and on to the secondary plant. The process is bottlenecked by the secondary plant which has a permitted capacity of 650 tons per hour.

Emissions from the new equipment and the end-loader vehicular activity were calculated using emission factors and predictive equations from the EPA document AP-42 *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Fifth Addition. Emissions from the stacking conveyor and aggregate transfer by the end-loader were calculated

Mr. W. Thomas Sellers, Jr.
Page Two

using the predictive equations found in Section 3.2.4 "Aggregate Handling and Storage Piles," November 2006. Emissions from the end-loader vehicular activity were calculated using the predictive equations found in Section 13.2.2 "Unpaved Roads," November 2006. Emissions from the hopper and conveyor were calculated using the conveyor emissions factor found in Section 11.19.2 "Crushed Stone Processing and Pulverized Mineral Processing," August 2004. The potential emissions of the project were calculated based on the bottlenecked capacity of the equipment assuming continuous operation for 90 days, which is the expected length of the project. The potential emissions are 8.04 tons of particulate matter less than ten microns in diameter (PM₁₀).

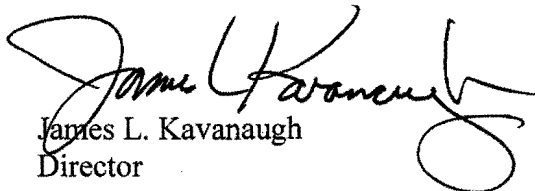
Along with adding the equipment mentioned above, Martin Marietta Aggregates is also removing a rip-rap scalping screen, the conveyor to the screen and the rip-rap stacking conveyor. Because this equipment is being removed, the project is not expected to impact ambient air quality.

You are still obligated to meet all applicable air pollution control rules, Department of Natural Resources' rules, or any other applicable federal, state, or local agency regulations. Specifically, you should avoid violating 10 CSR 10-6.045 *Open Burning Requirements*, 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-3.090 *Restriction of Emission of Odors*, 10 CSR 10-6.170 *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, and 10 CSR 10-6.400 *Restriction of Emission of Particulate Matter From Industrial Processes*.

A copy of this letter should be kept at the installation and be made available to Department of Natural Resources' personnel upon verbal request. If you have any questions regarding this determination, please do not hesitate to contact Michael Mittermeyer with the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM


James L. Kavanaugh
Director

JLK:mm1

c: PAMS File: 2010-01-050
✓ Southeast Regional Office

4. Storage Pile Emission Factor Calculations

Project No.:					Users Guide
ID No.:					
Name:					
		Portable Site Location Information (if applicable)			
Site ID No.:					
Site Name:					
Site Address:					
Storage Pile Information					
	Defaults	Storage Pile #1	Storage Pile #2	Storage Pile #3	
Storage Pile ID No.:	None	1			
Maximum Area of Storage Pile (Acres):	None	0.63			
Maximum Hourly Amount of Material Handled:	None	650.0	650.0	650.0	
Type of Material Stored:	Rock	Rock	Rock	Rock	Rock
Moisture Content %: Comment	0.7	1.5	0.7	0.7	0.7
Silt Content %: Comment	1.6	1.60	1.60	1.60	1.60
Mean Wind Speed In Miles per Hour (MPH):	10	10.0	10.0	10.0	10.0
Vehicular Area Silt Content %:	10	10.0	10.0	10.0	10.0
Unloaded Loader Weight:	None	22.2			
Average Loaded Loader Weight:	None	30.0			
Average Distance Loader Travels:	None	150.0			
Method of Load In to Storage Pile: Comment	Truck	stacker			
Method of Load Out from Storage Pile: Comment	Loader	loader			
Other Factors Affecting Emission Rates					
Dry Days per Year:	260	260	260	260	
Percentage (%) of Time Wind Speed > 12 MPH:	32	32	32	32	
Particle Size Multiplier for PM2.5:	0.053	0.053	0.053	0.053	
Particle Size Multiplier for PM10:	0.35	0.35	0.35	0.35	
Storage Pile PM10 Emission Factor (EF) Calculations					
Load In or Load Out PM10 EF (lbs/Ton Handled):	0.01199	0.00413	0.01199	0.01199	
Wind Erosion PM10 EF (lbs/Acre-Hr):	0.08917	0.08917	0.08917	0.08917	
Activity Factor PM10 EF (lbs/Ton Handled):	#REF!	0.01749			
Storage Pile PM2.5 Emission Factor (EF) Calculations					
Load In or Load Out PM2.5 EF (lbs/Ton Handled):	0.00182	0.00062	0.00182	0.00182	
Equations for Storage Pile PM10/PM2.5 Emission Factor Calculations					
Load In/Out Factor (lbs PM10/PM2.5 per Ton Handled):	= 0.0032 x (Particle Size Multiplier) x (Mean Wind Speed / 5)^{1.3} / (Moisture Content % / 2)^{1.4}				
Wind Erosion Factor (lbs of PM10 per Acre-Hr):	= 0.03542 x (Silt Content % / 1.5) x (Dry Days per Year / 235) x (% of Time Wind >12 MPH / 15)				
Activity Factor (lbs of PM10 per Ton Handled):	= 0.05 x (Silt Content % / 1.5) x (Dry Days per Year / 235) x Vehicle Activity Factor				