

Marquardt, Marcie M - DNR

From: Adam Driscoll <adriscoll@mmm.com>
Sent: Monday, July 16, 2018 3:27 PM
To: Dix, Deborah S - DNR
Cc: Mark Meurette; Gray, Ashley P - DNR
Subject: 3M Wausau - Request for Deadline Extension: to 6.11.18

Ms. Dix,

Thank you for taking my call today. This email is intended to request a 1-month extension to the August 1, 2018 deadline for corrective actions established in your June 11, 2018 letter entitled "Notice of Violation and Conference Summary" addressed to Todd Bullard of our Wausau facility. This letter established that the following items were to be completed and submitted by August 1, 2018 to Ashley Grey for evaluation:

1. Documentation that all systems which utilize emission control devices which have the potential to operate in the same manner (maintenance vs. production mode) as P-31, Baghouse #12, have been evaluated and corrective actions taken as needed to ensure a similar incident does not occur at another process.
2. Evaluation of the previous stack testing information and process changes which may have occurred since the testing performed in 1995 to determine the current potential emission factors from this process line. Discussion with Ms. Gray as to appropriate factors to consider may be beneficial.

As it relates to Item 2, on July 12, Mark Meurette and I met with Ashley Gray at WDNR's Wausau office to review representative stack test data for use in establishing emission estimates for the April 13, 2018 incident. During that meeting, 3M proposed use of a stack test from a sister facility which 3M owns and operates in Little Rock, AR. In closing that meeting, 3M pledged to provide further operational information from both the Little Rock and Wausau sites for Ms. Gray to review and determine appropriateness. We are encouraged by this collaborative process, and ask that the deadline for reply to your June 11, 2018 letter be extended from August 1, 2018 to September 1, 2018 so that we may have sufficient time to provide Ashley what she needs, allow her time to review and comment, and for 3M to reflect her input prior to arriving at our final proposed emission estimates for the incident. Finally, 3M notes that corrective actions have been completed related to Item 1 of the letter on all applicable 3M Wausau Downtown baghouses, and full documentation will be provided in our formal response letter.

Please let me know if there's anything else I can provide to assist you in this determination.



Adam Driscoll, P.E. | Senior Environmental Engineer
3M Environment, Health, Safety and Sustainability
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Marquardt, Marcie M - DNR

From: Adam Driscoll <adriscoll@mmm.com>
Sent: Thursday, July 26, 2018 9:21 AM
To: Gray, Ashley P - DNR
Cc: Mark Meurette; J. Todd Bullard
Subject: Estimated Emissions from 3M Wausau 4.13.18 Incident

Ashley,

Thank you again for taking the time to meet with us on July 12, 2018 to discuss methods to estimate emissions from our April 13, 2018 incident at P31 – Finished Granule Storage.

As we discussed during our meeting, considering the age of the 1995 stack test for P31 which you had initially proposed be used to estimate emissions for the event, paired with the process changes that have occurred in the intervening time, we have considered alternative stack tests for use in estimating emissions from the incident. Specifically, we had proposed to use a 2010 stack test from a similar emission unit at our Little Rock, AR facility. Consistent with your request from our meeting, we have reviewed the Little Rock test in greater detail as well as other recent available stack tests for other sources at 3M Wausau Downtown and Greystone to determine whether they could be considered more representative of emissions from P31 than the Little Rock Emission Unit which we had proposed.

While we believe that the 2010 Little Rock test qualitatively could provide results that may be considered more representative than the 1995 Wausau test, and that other tests performed at Wausau within the past 15 years are only available for emission units which are less representative of P31 than the Little Rock test, in the interest of time, and to assure that data which we would use to estimate emissions from this incident would not be construed as too far removed from Wausau and the emission units and events of April 13, 2018, we have decided to accept use of the 1995 Wausau stack test as the basis for a controlled emission rate at Wausau P31 at this time.

We'd further propose to extrapolate from controlled to uncontrolled emissions assuming a 99.0% control efficiency as discussed with you during our July 12, 2018 meeting at your offices. Utilization of the 1995 stack test values paired with an assumed 99.0% control efficiency results in the following estimated emissions from the April 13, 2018 incident:

$$\frac{0.65 \frac{\text{lb PM}/\text{PM}_{10}}{\text{hr}}}{(100\% - 99\%)} = 65 \frac{\text{lb PM}/\text{PM}_{10}}{\text{hr}} \times 4.6 \frac{\text{hr}}{\text{incident}} = 299 \frac{\text{lb PM}/\text{PM}_{10}}{\text{incident}}$$

Once you've had a chance to review, please let us know your preferred next steps, we can be available by phone or in person to discuss further. Thank you again for your patience and collaboration as we work through this issue.



Adam Driscoll, P.E. | Senior Environmental Engineer
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3-22-18


West Central Region Air Program
Wisconsin Department of Natural Resources
5301 Rib Mountain Drive
Wausau, WI 54401

Dear Ms. Ashley Gray,

3M Wausau received a letter of inquiry on March 21, 2018 regarding not reporting voc and methanol numbers for the 2017 air emissions inventory. On the morning of March 22, 2018, Mark Meurette worked with Grant Hetherington (DNR switchboard Manager) to enter the VOC and methanol numbers into the air emissions reporting tool. The numbers below represent what was entered into the air emissions inventory database this morning. If you have any questions, please let me know.

Process	Methano l	VOC
P87	1.9	12.5
P78	1.6	8.9
P79	1.9	13.8

Sincerely,


Dave Picka

Plant Manager

Attachments: WI DNR Letter – March 21, 2018

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
5301 Rib Mountain Drive
Wausau, WI 54401

Scott Walker, Governor
Daniel L. Meyer, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711



FID: 737009460

March 21, 2018

Dave Picka
3M Co Wausau Plant
144 Rosecrans St.
PO Box 1207
Wausau, WI 54402-1207

Subject: Letter of Inquiry

Dear Mr. Picka:

On January 17, 2018, the Department of Natural Resources (department) sent a letter of noncompliance to 3M Co Wausau Plant (3M) for underreporting emissions on the emission inventory. Specifically, 3M had not reported methanol or volatile organic compounds for processes P87, P78 and P79 for reporting year 2016 as follows:

Process	Methanol (tons)	VOC (tons)
P87/S57	1.7	10.97
P78/S58	1.5	8.38
P79/S61	1.65	12.7

Chapter NR 438 Wis. Adm. Code is an air pollution control rule that covers air contaminant emission inventory reporting requirements. Specifically, NR 438.03(1)(a) states that any person owning or operating a facility that emits an air contaminant in quantities above applicable reporting levels, except indirect sources of air pollution, shall annually submit to the department an emission inventory report of annual, actual emissions or, for particulate matter, PM10, sulfur dioxide, nitrogen oxides, carbon monoxide and volatile organic compounds, throughput information sufficient for the department to calculate its annual, actual emissions.

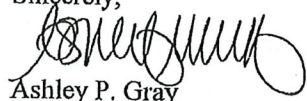
The letter of noncompliance stated that 3M shall ensure that the facility report all actual emissions on the emission inventory for reporting year 2017 by the due date of March 1, 2018.

3M submitted the emission inventory for the 2017 reporting year on February 28, 2018. However, it was noted that processes P87, P78 and P79 lack methanol and volatile organic compounds.

I am requesting that 3M respond to this letter by provided an explanation of why emissions were not reported. In addition, I am requesting that 3M provide actual emissions, along with calculations for all emissions from processes P87, P78 and P79.

This information is requested in accordance with s. NR 439.03(1), Wis. Adm. Code and must be submitted to this office within 10 days upon receipt of this letter. If you have any questions regarding this request, you may contact me at 715/355-9474.

Sincerely,

A handwritten signature in black ink, appearing to read "Ashley P. Gray", written in a cursive style.

Ashley P. Gray
Air Management Engineer

Cc: Rick Wulk, Green Bay (e-copy)
Martha Makhholm, AM/7 (e-copy)
WCR File, Wausau

Notice: Section NR 439.03(4), Wis. Adm. Code, contains various requirements for an owner or operator of a source to report to the department by the next business day any deviation from permit requirements and certain malfunctions or other unscheduled events at the source that were not reported in advance to the department. You may use this form to submit your Deviation Report. Use of this Form is voluntary. Please note that Deviation Reports must be signed by a responsible official, as defined in NR 400.02(136), Wis. Adm. Code. Personally identifiable information collected on this Form may be provided to requesters as required by Wisconsin's Open Records law (ss. 19.31-19.39, Wis. Stats.).

Facility Name: 3M Downtown Facility	Facility Identification No. (FID): 737009460
Permit No. and Condition(s) Affected: 737009460-P31	Permit Process No./Unit Description: P-31 Baghouse #12
Start/Stop Time(s) of Deviation/Malfunction: 6:10am 04/13/2018 stopped, restarted 10:46am 04/13/2018 (276 minutes)	Pollutants Affected (and estimate of excess emissions emitted with basis/calculations of estimate): tons/hour x time/hours x AP 42 transfer of rock = lbs or particulate 337tons per hour x 4.6 hours x .0015lbs per hour of transfer of rock = 2.3lbs

Description of Deviation/Malfunction:
Running process without control device.

Cause(s) of Deviation/Malfunction:
Maintenance employee was performing work on process and the equipment was in Maintenance Mode. Upon completion of maintenance work the process was not placed to normal production mode. When operator started process equipment the #12 baghouse did not start. Which resulted in running the process without control device.

Method Used to Determine Deviation/Malfunction:
Verbal communication and investigation

Corrective Action(s) taken during the period of deviation/malfunction to address problem and minimize emissions (including when they were taken and the period of time necessary to correct the deviation/malfunction):
Immediately put process in normal production mode and started #12 baghouse.

Status of Operation:
Currently operating in compliance.

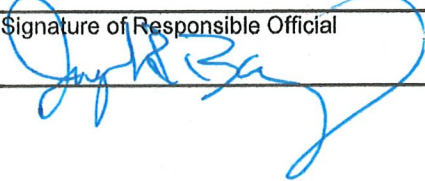
Measures Taken During and After Deviation/Malfunction To Prevent Re-Occurrence:
Will add interlock to PLC that will prevent processing of product while in maintenance mode.

Was the facility's Malfunction Prevention and Abatement Plan revised (please provide if revised)? Yes No

Certification

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate and complete.

Report prepared by: Joe Baregi

Signature of Responsible Official 	Title EHS & Quality Manager	Date 4/13/18
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3M Industrial Minerals Product Division
144 Rosecrans Street
Wausau, WI 54403

June 5, 2018

Via Email to Ashley Gray

Deborah S. Dix
Environmental Enforcement Specialist
Wisconsin Department of Natural Resources
5301 Rib Mountain Drive
Wausau, WI 54401

Subject: Notice of Violation
3M Wausau – Industrial Mineral Products
Wausau, WI
Air Quality Permit No. 737009460-P25

Dear Ms. Dix,

On April 13, 2018, 3M Wausau notified the Wisconsin Department of Natural Resources (WDNR) that 3M Wausau inadvertently ran its P-31 (Finished Granule Storage) process line for 276 minutes without control, Baghouse #12, after completing equipment maintenance. With this letter, 3M Wausau responds to the Notice of Violation (NOV) of May 14, 2018 that WDNR has issued concerning this event.

In the NOV, WDNR alleges:

Permit 737009460-P25, Conditions I.F.1.b.(1), I.F.2.b.(1) and I.F.3.b.(1) and s. NR 407.09(1)(a), Wis. Adm. Code — Failure to operate baghouse while process is in operation. Process P31 was operated for 4.6 hours without the control equipment in operation (C18, baghouse #12).

WDNR has also scheduled an Enforcement Conference to discuss this matter in more detail:

Date: June 6, 2018
Time: 10:30 a.m.
Location: Wisconsin Department of Natural Resources
5301 Rib Mountain Drive
Wausau, WI 54401

Incident Investigation:

On April 13, 3M Wausau notified WDNR that it inadvertently ran a process line for finished and dust suppressant-treated 3M roofing granule products for approximately 4 ½ hours without baghouse control after completing equipment maintenance on that line. The baghouse needed to be shut off during equipment maintenance for employee safety and operational reasons.

When the process line operator started up the line after equipment maintenance had been completed, Baghouse #12 did not automatically start. An interlock prevents the line from running in normal production mode without baghouse control, but that interlock does not force activation of the baghouse when switching from maintenance to normal production mode. A maintenance employee performing daily baghouse checks promptly notified staff when it was discovered that the line was operating in maintenance mode without Baghouse #12 in operation. Staff promptly turned on Baghouse #12.

The estimated emission rate for the 276 minutes that the P-31 line operated without baghouse control was 1.0 lb/hr, or a total of 4.6 lbs of particulate emissions. The emission calculations (attached) use AP-42 emission factors. When 3M Wausau notified WDNR of this event, WDNR suggested the facility use stack testing data to calculate emissions. However, 3M is not aware of particulate stack testing data specific to this emission unit / baghouse, nor has 3M been required to conduct such testing historically. Thus, use of an uncontrolled EPA AP-42 emission factor multiplied by the maximum throughput capacity of the unit is valid and likely conservative, especially when considering that the rock in this emission unit is finished product which has had dust suppressant applied, and the EPA factors do not account for any emissions control such as dust suppressant.

Corrective Action:

To resolve this issue and avoid repeat events, 3M Wausau has taken the following actions:

- Implemented an additional interlock to prevent restarting of the process line without baghouse control following completion of equipment maintenance activity.
- Modified each computer display in the operator control room to show if the baghouse is turned off or otherwise not operating. If the baghouse is not operating, this status is displayed in large red font and flashes in yellow on the display screens regardless of whether the system is in normal operation or maintenance mode.
- Conducted additional training of site staff.

In summary, 3M Wausau has worked cooperatively with WDNR to promptly notify them of and resolve the deviations that 3M Wausau reported, including:

- 3M brought this matter to the attention of WDNR on April 13, same day of the incident.
- 3M implemented and completed corrective action promptly upon determining the root cause of the issue.

3M looks forward to a continued positive relationship working with WDNR and continued commitment to environmental compliance.

If you have any questions I can be reached at (715) 845-0282 or mmeurette@mmm.com.

Best Regards,

Mark Meurette
Environmental Engineer

Cc: Todd Bullard, 3M Wausau Plant Manager
Joe Baregi, EHS and Quality Mngr.
Adam Driscoll, 3M Environmental Operations
Tina Mumm, 3M Division Eng. Ops

State of Wisconsin
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FID: 737009460

March 21, 2018

Dave Picka
3M Co Wausau Plant
144 Rosecrans St.
PO Box 1207
Wausau, WI 54402-1207

Subject: Letter of Inquiry

Dear Mr. Picka:

On January 17, 2018, the Department of Natural Resources (department) sent a letter of noncompliance to 3M Co Wausau Plant (3M) for underreporting emissions on the emission inventory. Specifically, 3M had not reported methanol or volatile organic compounds for processes P87, P78 and P79 for reporting year 2016 as follows:

Process	Methanol (tons)	VOC (tons)
P87/S57	1.7	10.97
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The letter of noncompliance stated that 3M shall ensure that the facility report all actual emissions on the emission inventory for reporting year 2017 by the due date of March 1, 2018.

3M submitted the emission inventory for the 2017 reporting year on February 28, 2018. However, it was noted that processes P87, P78 and P79 lack methanol and volatile organic compounds.

I am requesting that 3M respond to this letter by provided an explanation of why emissions were not reported. In addition, I am requesting that 3M provide actual emissions, along with calculations for all emissions from processes P87, P78 and P79.

This information is requested in accordance with s. NR 439.03(1), Wis. Adm. Code and must be submitted to this office within 10 days upon receipt of this letter. If you have any questions regarding this request, you may contact me at 715/355-9474.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ashley P. Gray', written in a cursive style.

Ashley P. Gray
Air Management Engineer

Cc: Rick Wulk, Green Bay (e-copy)
Martha Makholm, AM/7 (e-copy)
WCR File, Wausau

State of Wisconsin
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Wausau, Wisconsin 54401

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FID: 737009460

January 17, 2018

Dave Picka
3M Co Wausau Plant
144 Rosecrans St.
PO Box 1207
Wausau, WI 54402-1207

Subject: Letter of Noncompliance

Dear Mr. Picka:

This letter is to inform you that the Department of Natural Resources (department) has reason to believe that 3M Co Wausau Plant (3M), at 144 Rosecrans St., Wausau, Wisconsin, may be in noncompliance with Wisconsin's air pollution control rules.

Chapter NR 438 Wis. Adm. Code is an air pollution control rule that covers air contaminant emission inventory reporting requirements. Specifically, NR 438.03(1)(a) states that any person owning or operating a facility that emits an air contaminant in quantities above applicable reporting levels, except indirect sources of air pollution, shall annually submit to the department an emission inventory report of annual, actual emissions or, for particulate matter, PM10, sulfur dioxide, nitrogen oxides, carbon monoxide and volatile organic compounds, throughput information sufficient for the department to calculate its annual, actual emissions.

It was noted that 3M has not reported emissions for processes P87, P78 and P79 for reporting year 2016.

Underreported emissions are as follows:

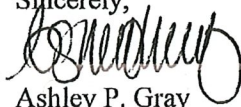
Process	Methanol (tons)	VOC (tons)
P87/S57	1.7	10.97
P78/S58	1.5	8.38
P79/S61	1.65	12.7

Based on this information, the department has reason to believe that 3M is operating in noncompliance with NR 438.03(1)(a) Wis. Adm. Code.

The actual emissions for these processes will be updated in the department's database for 2016. However, 3M's certified emissions submitted to EPA will not be altered. Please ensure that 3M report all actual emissions on the emission inventory for reporting year 2017 by the due date of March 1, 2018.

If you have any questions on this matter, please contact me at 715-355-9474.

Sincerely,



Ashley P. Gray
Air Management Engineer

- C: WCR file, Wausau
- Martha Makhholm, AM/7 (e-copy)
- Rick Wulk, Green Bay (e-copy)