



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
DETROIT



C. HEIDI GREYER
DIRECTOR

July 25, 2017

Mr. Jordan Thompson
BASF Corporation
1609 Biddle Avenue
Wyandotte, Michigan 48192

SRN: B4359, Wayne County

Dear Mr. Thompson:

VIOLATION NOTICE

On August 23, 2016, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), received information from BASF Chemical Plants (BASF) located at 1609 Biddle Avenue, Wyandotte, Michigan regarding the Wyandotte Steam Plant Upgrade, Permit to Install Exemption Applicability Demonstration Pursuant to R 336.1278a. Additional information regarding the Steam Plant Upgrade was provided by BASF via email on May 4, 2017. As part of the review of the Steam Plant Upgrade information, the AQD evaluated BASF's compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Air Pollution Control Rules; and the conditions of Renewable Operating Permit (ROP) MI-ROP-B4359-2003b.

As a result of the review of the above listed submittals, the following violation was identified:

Process Description	Rule/Permit Condition Violated	Comments
FGSTEFACILITY	R 336.1201(1)	The facility modified the steam plant without obtaining a permit to install.

On August 23, 2016, the AQD received via email the Permit to Install Exemption Applicability Demonstration Pursuant to R 336.1278a for the Wyandotte Steam Plant Upgrade dated August 16, 2016, (herein after referred to as WSPU submittal). According to the WSPU submittal, the upgrade consists of the installation of four, new 49.9 million British thermal unit per hour (MMBtu/hr) natural gas fired, low oxides of nitrogen (NOx) burners in existing boilers, in addition to new water chemical feed systems, exhaust ducting, and other ancillary supporting systems.

According to the Michigan Air Emissions Reporting Systems data, the boilers last operated during 2005.

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The WSPU submittal states that the R 336.1278 exclusions from exemption do not apply to the Steam Plant Upgrade Project. The WSPU submittal states installation did not require a permit to install (PTI) pursuant to R 336.1282(b)(i) and R 336.1285(b) (following the December 20, 2016 Rule revisions the citations would be R 336.1282(2)(b)(i) and R 336.1285(2)(b) respectively).

To apply the above PTI exemptions, a R 336.1278a test must be conducted.

"R 336.1278a. (1) To be eligible for a specific exemption listed in R 336.1280 to R 336.1291, any owner or operator of an exempt process or exempt process equipment must be able to provide information demonstrating the applicability of the exemption. The demonstration may include the following information:

- (a) A description of the exempt process or process equipment, including the date of installation.
- (b) The specific exemption being used by the process or process equipment.
- (c) An analysis demonstrating that R 336.1278 does not apply to the process or process equipment."

At this time, the facility has not provided an analysis demonstrating that R 336.1278 does not apply.

"R 336.1278(1) The exemptions specified in R 336.1280 to R 336.1291 do not apply to either of the following:

- (a) Any activity that is subject to prevention of significant deterioration of air quality regulations or new source review for major sources in nonattainment areas regulations.
- (b) Any activity that results in an increase in actual emissions greater than the significance levels defined in R 336.1119. For the purpose of this rule, "activity" means the concurrent and related installation, construction, reconstruction, relocation, or modification of any process or process equipment."

To evaluate this, BASF must first determine if stationary source SRN B4359 is an existing major new source review source as defined under R 336.2801 and determine if the PTE exceeds either of the significant thresholds of R 336.1278(1)(a) and (b).

The WSPU submittal states that the Wyandotte Facility is not currently classified as an existing major stationary source under federal prevention of significant deterioration (PSD) regulations. However, the Steam Plant Upgrade Submittal did not include facility wide potential to emit (PTE) calculations demonstrating that the facility is not a major stationary source.

Per R 336.2801(cc)(i)(U), a major stationary source means any of the following: "(i) Any of the following stationary sources of air pollutants which emit, or has the potential to

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emit, 100 tons per year or more of a regulated new source review pollutant:... (U) Chemical process plants."

The WSPU submittal provides project PTE based on three boilers in operation using natural gas. The individual boiler PTE of oxides of nitrogen (NOx) are reported as 10.7 tons per year. The reported PTE for three boilers is 32.1 tons per year NOx. The PTE for all four boilers operating concurrently is therefore 42.8 tons per year NOx, which is greater than 40 tons, a significant emissions increase under R 336.2801(rr). "Significant" is defined under R 336.1119(e) as follows:

"Significant" means a rate of emissions for the following air contaminants which would equal or exceed any of the following:... (ii) Oxides of nitrogen - 40 tons per year.

Under Section 2.1 of the WSPU submittal, it states the following.

"The current and proposed boiler water treatment systems and ancillary supporting equipment is capable of supporting only three boilers in concurrent operation. Therefore, while four boilers will be available for operation following the Steam Plant Upgrade Project, the fourth boiler will only be utilized as a backup unit. Normal operations will consist of three or less boilers firing simultaneously, with a rotating schedule of operations among the four available boilers."

Information provided via email on May 4, 2017 indicates that each boiler requires 80 gallons per minute (gpm) water to support full capacity, and three equivalent boilers at full capacity requires 240 gpm water. According to the email dated May 4, 2017 there are two reverse osmosis (RO) water units (RO-100 and RO-200) that produce 240 gpm water each, with one RO unit intended for use as backup. Similarly, there are two RO transfer pumps (P-700 and P-700S) that are capable of 240 gpm water each. The operation of all four boilers is not restricted through enforceable conditions in a PTI or through physical restrictions.

As a result there is insufficient evidence to demonstrate that R 336.1278(1)(a) or R 336.1278(1)(b) do not apply to the proposed modification, and therefore the analysis required under R 336.1278a(1)(c) has not been met. Consequently, the R 336.1282(2)(b)(i) and R 336.1285(2)(b) exemptions are ineligible for use and the facility is in violation of R 336.1201(1) for modifying FGSTEFACILITY without having first obtained a Permit to Install.

Please initiate actions necessary to correct the cited violations and submit a written response to this Violation Notice by August 15, 2017 (which coincides with 21 calendar days from the date of this letter). The written response should include: the dates the violations occurred; an explanation of the causes and duration of the violations; whether the violations are ongoing; a summary of the actions that have been taken and are

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proposed to be taken to correct the violations and the dates by which these actions will take place; and what steps are being taken to prevent a reoccurrence.

If BASF believes the above observations or statements are inaccurate or do not constitute violations of the applicable legal requirements cited, please provide appropriate factual information to explain your position.

Thank you for your attention to resolving the violations cited above and for the cooperation that was extended to me during my inspection of BASF. If you have any questions regarding the violations or the actions necessary to bring this facility into compliance, please contact me at the number listed below.

Sincerely,



Todd Zynda, P.E.
Environmental Engineer
Air Quality Division
313-456-2761

cc/via e-mail: Mr. Bryan Hughes, BASF
Ms. Lynn Fiedler, DEQ
Ms. Mary Ann Dolehanty, DEQ
Mr. Chris Ethridge, DEQ
Mr. Thomas Hess, DEQ
Ms. Wilhemina McLemore, DEQ
Mr. Jeff Korniski, DEQ