



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
DETROIT



C. HEIDI GREETHER
DIRECTOR

December 15, 2017

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

SRN: B4359, Wayne County

Dear Mr. Thompson:

VIOLATION NOTICE

On December 1, 2017, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), received potential to emit (PTE) calculations from BASF Chemical Plants (BASF) for its stationary source located at 1609 Biddle Avenue, Wyandotte and identified by the State Registration No. (SRN) B4359. The facility's PTE was submitted as part of Permit to Install (PTI) application 145-17, received by the AQD on September 29, 2017. As part of a review of the Wyandotte Steam Plant Upgrade (WSPU) submittal received from BASF on August 23, 2016, a review of additional information regarding the WSPU received from BASF via email on May 4, 2017, and a review of the facility's PTE, 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, the following violation was identified:

Process Description	Rule/Permit Condition Violated	Comments
FGSTEFACILITY	R 336.2802(3)	The facility has constructed and is operating a major modification, as defined at R 336.2801(aa), for oxides of nitrogen (NOx) without first obtaining a permit to install issued under R 336.1201(1)(a) stating that FGSTEFACILITY and the WSPU will meet the applicable requirements within R 336.2810 to R 336.2818(2).

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. 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

Mr. Jordan Thompson

December 15, 2017

Page 2

gas fired, low oxides of nitrogen (NOx) burners in existing boilers located at the existing steam plant (FGSTEFACILITY), in addition to new water chemical feed systems, exhaust ducting, and other ancillary supporting systems within FGSTEFACILITY. Based on the December 7, 2016 facility inspection, the WSPU project was completed on or before December 1, 2016.

On December 1, 2017, BASF provided facility PTE calculations as part of PTI application 145-17 for FGSTEFACILITY and the WSPU. The PTE for NOx is reported at 122 tons per year and the PTE for volatile organic compounds (VOCs) is reported at 287 tons per year. 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 emit, 100 tons per year or more of a regulated new source review pollutant: . . . (U) Chemical process plants." As NOx and VOCs are both regulated new source review pollutants, the BASF Chemical Plants is classified as an existing major stationary source.

The WSPU submittal provides the project PTE based on three boilers in operation using natural gas. 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 by BASF 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.

The individual boiler PTE of NOx are reported as 10.7 tons per year and 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. As the significant threshold for NOx is 40 tons (R 336.2801(qq)(i)(B) and (rr)), the increase in NOx represents both a significant emissions increase and a significant net emissions increase of a regulated new source review pollutant. Based on this information, the AQD concludes the WSPU at FGSTEFACILITY has resulted in a major modification, as defined at R 336.2801(aa), to a major prevention of significant deterioration stationary source. As R 336.2802(3) prohibits a facility from beginning construction on a major modification without having first obtained a permit to install stating that the major modification will meet the applicable

Mr. Jordan Thompson
December 15, 2017
Page 3

requirements within R 336.2810 to R 336.2818(2), the AQD concludes BASF stands in violation of R 336.2802(3) for the construction of the WSPU at FGSTEFACILITY.

Please initiate actions necessary to correct the cited violation and submit a written response to this Violation Notice by January 5, 2017 (which coincides with 21 calendar days from the date of this letter). The written response should include: the dates the violation occurred; an explanation of the causes and duration of the violation; whether the violation is ongoing; a summary of the actions that have been taken and are proposed to be taken to correct the violation 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 a violation of the applicable legal requirements cited, please provide appropriate factual information to explain your position.

Thank you for your attention to resolving the violation cited above. If you have any questions regarding the violation or the actions necessary to bring this facility into compliance, please contact me at the number listed below.

Sincerely,



Todd Zynda, P.E.
Senior 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