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January 28, 2025

Ms. Lisa Felice
Executive Secretary
Michigan Public Service Commission
7109 West Saginaw Hwy.
Lansing, MI 48917

Re: In the matter on the Commission's own motion to enforce the provisions of 2000 PA
141 with respect to mercury emissions
MPSC Case No. U-12486

Dear Ms. Felice:

Attached for electronic filing in the above-captioned matter is DTE Electric Company's 2024
Annual Response to the February 23, 2012 Order in MPSC Case No. U-12486.

Very truly yours,

Breanne K. Reitzel

BKR/cdm
Attachment

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission's own)
Motion, to enforce the provisions of 2000)
PA 141 with respect to mercury emissions.)
_____)

Case No. U-12486

DTE ELECTRIC COMPANY'S RESPONSE
TO THE FEBRUARY 23, 2012 ORDER IN MPSC CASE NO. U-12486

On February 23, 2012 the Michigan Public Service Commission ("Commission") issued an Order in the above-referenced case requiring each owner or operator of a mercury-emitting electrical power generating facility in Michigan shall file a report in this docket no later than May 23, 2012, and to file a similar report by January 31 of each succeeding year. Pursuant to the Commission's Order, following is DTE Electric Company's ("DTE"), formerly The Detroit Edison Company, response.

On December 21, 2011, the Environmental Protection Agency ("EPA") issued a final Mercury and Air Toxics Standard ("MATS") for coal- and oil-fired electric generating units ("EGUs"). Those rules were published in the Federal Register on February 16, 2012, and became effective on April 16, 2012. MATS requires affected EGUs to meet the emission limits and other requirements of the standard by April of 2015, with a possible one-year extension that may be granted by the state or local permitting agency. The Michigan Department of Environmental Quality ("MDEQ") granted DTE Electric's requests for one-year extensions for Belle River, Monroe, River Rouge, St. Clair and Trenton Channel Power Plants. While MATS establishes standards for mercury, it also sets specific standards for acid gases using hydrogen chloride, or HCl, as a surrogate and particulate matter ("PM") as a surrogate for other non-mercury metals.

The standard also allows units operating with flue gas desulfurization (“FGD”), like all four units at Monroe Power Plant, to use sulfur dioxide, or SO₂, as a surrogate for acid gases.

In addition, Michigan’s Department of Environment, Great Lakes, and Energy (“EGLE”; formerly “MDEQ”) previously promulgated mercury emission standards for electric generating units in the state of Michigan in 2009 known as the Michigan Mercury Rule (“MMR”). The MMR requires 90% reduction from baseline input mercury levels beginning in 2015. However, the MMR contains a provision that provides for the expiration of the rule when the EPA publishes a final rule in the Federal Register that requires mercury emissions reductions that meet or exceed the requirements of the MMR. (See R. 336.2514 Mercury program expiration Rule 1514)

After the MATS rule became final, EGLE determined the federal rules are as stringent as the MMR and rescinded Rule 1514.

Prior to the MATS rule being finalized, DTE partnered with the U.S. Department of Energy, EPA, and others to help further the development of mercury emission control technology, particularly a technology called Activated Carbon Injection (“ACI”). This included the use at both its St. Clair and Monroe Power Plants as pilot test sites for technology research and demonstration. DTE installed and operated mercury monitoring systems to further gather mercury emissions data. DTE had also installed emission control technology at the Monroe Power Plant that significantly reduces mercury emissions.

In 2011 and 2012, DTE conducted extensive testing of a technology called Dry Sorbent Injection (“DSI”). DSI had shown promise as an effective technology to achieve acid gas reduction requirements of MATS, with a lower capital cost requirement than FGD systems. This testing included not only investigating DSI performance meeting acid gas limits, but also evaluating performance impacts on ACI as a mercury-specific emission control technology.

The knowledge gained from these efforts assisted DTE in making informed compliance plan decisions based on emission control technology performance expectations and limitations. DTE determined that utilizing ACI and DSI on its coal-fired units would be effective to meet MATS and MMR emission reduction requirements.

When selecting a path for environmental compliance, cost of compliance and the impact on generation competitiveness under different market and regulatory scenarios must be balanced. Various regulatory scenarios including potential regulatory initiatives not yet finalized, such as additional water, ash and landfill, and further air regulations are analyzed in conjunction with market scenarios, including fuel and energy price forecasts.

Previous analysis has determined that FGD for acid gas reduction, along with Selective Catalytic Reduction (“SCR”) for NO_x reduction at Monroe Power Plant were the most cost-effective method for portfolio compliance with SO₂ and NO_x regulations. SCR and FGD installed together on a single unit also provide co-benefit mercury reductions for compliance with MMR and MATS. Once the portfolio’s SO₂ and NO_x reduction requirements are met, however, SCR and FGD are not cost-effective solely for required mercury reductions. DSI for acid gas emission reduction along with ACI for mercury control is the most cost-effective solution for coal-fired plants that will remain operational.

Both FGD and SCR are currently operating on all four Monroe units. This, along with strategic fuel blending and NO_x combustion controls on the remaining fossil fuel units in the portfolio, provides the DTE generation portfolio with all expected emission reduction requirements for SO₂ and NO_x. Operating this equipment brings all four Monroe units in compliance with MATS and MMR. The remaining operational coal-fired units were cost-effectively retrofitted with DSI and ACI for compliance with MATS and MMR by April 2016.

Units that could not cost-effectively operate with this equipment were retired. DTE completed construction and began operation of DSI/ACI equipment at Belle River, River Rouge, St. Clair and Trenton Channel Power Plants for compliance with MATS requirements by April 2016. Belle River will use DSI/ACI for MATS compliance as needed until the units are retired or converted to natural gas. The other plants that had used ACI have been retired.

In summary, DTE power plants have implemented a cost-effective compliance strategy for MATS and are in compliance with all applicable EPA and State of Michigan regulations governing mercury emissions.

Respectfully Submitted,

DTE ELECTRIC COMPANY

Dated: January 28, 2025