BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:	)	
	)	
Title V Air Operating Permit	)	
	)	Permit No. 0180-00233-V0
For the Mitsubishi Chemical America, Inc.	)	
MCA Geismar Site	)	
Geismar, Ascension Parish, Louisiana	)	
	)	
Issued by the Louisiana Department of	)	
Environmental Quality	)	

PETITION TO OBJECT TO THE TITLE V OPERATING PERMIT
FOR THE MITSUBISHI CHEMICAL AMERICA, INC. MCA GEISMAR SITE

Pursuant to § 505(b)(2) of the Clean Air Act, 42 U.S.C. § 7661d(b)(2), and 40 C.F.R. § 70.8(d), RISE St. James Louisiana, Healthy Gulf, Louisiana Bucket Brigade, Sierra Club, and Earthjustice ("Petitioners")[1] petition the Administrator of the U.S. Environmental Protection Agency ("EPA") to object to the above-referenced proposed renewal Title V permit ("Proposed Title V Permit"), Permit No. 0180-00233-V0, issued by the Louisiana Department of Environmental Quality ("LDEQ") for Mitsubishi Chemical America, Inc.'s MCA Geismar Site, located in Geismar, Ascension Parish, Louisiana.[2]

As discussed below, the Proposed Title V Permit fails to contain all applicable requirements—specifically, the recently finalized fenceline monitoring provisions of the Hazardous Organic NESHAP ("HON") and recently finalized New Source Performance Standards under Subparts NNNa and RRRa—as required by the Clean Air Act and EPA regulations. Additionally, the Proposed Title V Permit's monitoring and testing requirements cannot ensure compliance with continuously applicable limits for opacity and certain hourly and annual limits, including particulate matter (PM), carbon monoxide (CO), volatile organic compounds (VOCs), and greenhouse gases (GHGs).

Environmental justice concerns in the communities surrounding the proposed MCA Geismar Site provide additional reason as to why EPA must pay special attention and object here. As detailed in Petitioners' Comments and below, the environmental indicators for the 3-mile radius surrounding the MCA Geismar site are in exceedingly high percentiles, including Air Toxics Cancer Risk: 98 (State), 94 (National); Toxic Releases to Air: 99 (State), 99 (National);

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[1] The undersigned attorneys submit this petition on behalf of the Petitioners.
[2] *See* LDEQ, Part 70 Operating Permit, Mitsubishi Chemical America, Inc. - MCA Geismar Site Geismar, Ascension Parish, Louisiana, Permit No. 0180-00233-V0 (July 24, 2024) [hereinafter Proposed Title V Permit], *available at* https://edms.deq.louisiana.gov/app/doc/view?doc=14394912.

RMP Facility Proximity: 91 (State), 95 (National); Ozone: 87 (State), 54 (National); Wastewater Discharge: 93 (State), 90 (National).[3]

Petitioners additionally note that LDEQ waited more than two weeks after the expiration of EPA's review period (expired July 8) to issue the permit (issued July 24) and more than three weeks to notify the public (notified July 31). LDEQ's delay effectively cut two to three weeks from the statutory 60-day period for Petitioners to review the Proposed Title V Permit and LDEQ's Response to Comments, and prepare this Petition.[4] *See* 42 U.S.C. § 7661d(b)(2).

BACKGROUND

I. THE PROPOSED TITLE V PERMIT ON WHICH THIS PETITION IS BASED

This petition asks EPA to object to the Proposed Title V Permit for the MCA Geismar Site. The MCA Geismar Site will include a methyl methacrylate (MMA) plant; a combined CO/methanol plant, and a formalin plant.[5] The permit action at issue here is a new Title V Permit, proposed permit no. 0180-00233-V0, issued in conjunction with the proposed facility's Prevention of Significant Deterioration (PSD) permit.

LDEQ released the draft renewal Title V permit for public comment on December 28, 2023.[6] On February 5, 2024, Petitioners timely submitted comments and requested a suspension or extension of the comment period to allow for sufficient public participation and for the receipt and incorporation of necessary information ("Comments").[7] Petitioners' Comments raised the objections discussed below in this petition, including the objections on the basis of the then-proposed Hazardous Organic National Emissions Standards for Hazardous Air Pollutants

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[3] *See* Comments of RISE St. James, Louisiana Bucket Brigade, Healthy Gulf, Center for Biological Diversity, Sierra Club, Earthworks, and Earthjustice 36-37 (Feb. 5, 2024) [hereinafter Comments], attached hereto as Exhibit 1.

[4] For comparison, in EPA's recently issued order on another LDEQ-issued Title V permit, "EPA's 45-day review period expired on November 13, 2023. The EPA's website indicated that any petition seeking the EPA's objection to the Permit was due on or before January 16, 2024." *See In the Matter of CF Industries East Point, LLC, Waggaman Complex*, Order on Petition No. VI-2024-11, at 5 (June 25, 2024), *available at* https://www.epa.gov/system/files/documents/2024-06/cf-east-point-order_06-25-2024.pdf. In that case, LDEQ made the proposed Title V permit and basis of decision available to the public on the same day that EPA's review period expired, thereby providing the public with the full 60-day petition period with the documents in hand. *See* LDEQ, Part 70 Operating Permit, Dyno Nobel LA Ammonia LLC, Ammonia Production Facility, Waggaman, Jefferson Parish, Louisiana, Permit No. 1340-00352-V9 (Nov. 13, 2023) [hereinafter Proposed Title V Permit], *available at* https://edms.deq.louisiana.gov/app/doc/view?doc=14064977.

[5] *See* LDEQ, Basis of Decision, Permit No. 0180-00233-V0 at 2 [hereinafter BoD], *available at* https://edms.deq.louisiana.gov/app/doc/view?doc=14400942.

[6] *See* LDEQ, Public Notice, Mitsubishi Chemical America, Inc. / MCA Geismar Site (Dec. 28, 2023), https://edms.deq.louisiana.gov/app/doc/view?doc=14103223 (last visited Sep. 9, 2024).

[7] *See* Comments, *supra*, at 1.

("Hazardous Organic NESHAP," or "HON Rule"), which applies to the MCA Geismar Site. On May 16, 2024, EPA published the final HON Rule.[8]

LDEQ has since responded to Petitioners' significant comments on the draft permit that are relevant to this petition, revised the permit without resolving the concerns raised in this petition (which were also raised in Petitioners' comments), and sent the revised, Proposed Title V Permit to EPA for its review. Petitioners are timely filing this petition by the deadline of September 9, 2024, as provided on EPA Region 6's website, to petition the agency to object to the Proposed Title V Permit.[9] This date is within 60 days of the expiration of EPA's 45-day review period, which ended on July 8, 2024.[10]

II. PETITIONERS

RISE St. James Louisiana (a fiscally sponsored project of Earth Island Institute, a California 501(c)(3) non-profit organization), is a faith-based, grassroots organization that advocates for racial and environmental justice in St. James Parish and throughout the river parishes of Louisiana.

Healthy Gulf was founded in 1994 and has more than 25,000 members and supporters in all five Gulf states committed to uniting and empowering people to protect and restore the natural resources of the Gulf Region.

Louisiana Bucket Brigade ("LABB") is a non-profit environmental health and justice organization based in the state of Louisiana. LABB works with communities that neighbor Louisiana's oil refineries and chemical plants and uses grassroots action to create an informed, healthy society with a culture that holds the petrochemical industry and government accountable for the true costs of pollution to create a healthy, prosperous, pollution-free, and just state where people and the environment are valued over profit.

The **Sierra Club** is America's largest and most influential grassroots environmental organization, with millions of members and supporters. In addition to protecting every person's right to get outdoors and access the healing power of nature, the Sierra Club works to promote clean energy, safeguard the health of our communities, protect wildlife, and preserve our remaining wild places through grassroots activism, public education, lobbying, and legal action. The Sierra Club has a longstanding interest and expertise in the development and use of natural resources along the Louisiana and Mississippi coasts and has nearly 3,200 members in Louisiana, some of whom live, work, and recreate in the area affected by the proposed facility.

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[8] *See* New Source Performance Standards for the Synthetic Organic Chemical Manufacturing Industry and National Emission Standards for Hazardous Air Pollutants for the Synthetic Organic Chemical Manufacturing Industry and Group I & II Polymers and Resins Industry, 89 Fed. Reg. 42,932 (May 16, 2024).

[9] *See* EPA, Title V Operating Permit Public Petition Deadlines, https://www.epa.gov/caa-permitting/operating-permit-timeline-louisiana (providing "09/09/24" as "60-Day Public Petition End Date" for Permit No. 0180-00233-V0) (last visited Sep. 9, 2024).

[10] *Id.* (providing "07/08/24" as "EPA 45-day Review Period End Date").

III. GENERAL TITLE V PERMIT REQUIREMENTS

To protect public health and the environment, the Clean Air Act prohibits stationary sources of air pollution from operating without or in violation of a valid Title V permit, which must include all applicable requirements under the Clean Air Act, and conditions sufficient to "assure compliance" with those requirements. 42 U.S.C. §§ 7661c(a), (c); 40 C.F.R. §§ 70.6(a)(1), (c)(1). "Applicable requirements" include all standards, emissions limits, and requirements of the Clean Air Act. 40 C.F.R. § 70.2. Congress intended for Title V to "substantially strengthen enforcement of the Clean Air Act" by "clarify[ing] and mak[ing] more readily enforceable a source's pollution control requirements."[11] As EPA explained when promulgating its Title V regulations, a Title V permit should "enable the source, States, EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements."[12] Among other things, a Title V permit must include compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit. 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(c)(1).

If applicable requirements themselves contain no periodic monitoring, EPA's regulations require permitting authorities to add "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit."[13] 40 C.F.R. § 70.6(c)(1) of EPA's regulations additionally acts as a gap filler and requires that permit writers supplement an existing periodic monitoring requirement inadequate to assure compliance.[14] In addition to including permit terms sufficient to assure compliance with applicable requirements, permitting authorities must include a rationale for monitoring, testing, and reporting requirements that is clear and documented in the permit record.[15]

As Petitioners stated in their Comments, a Title V permit must contain "compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit."[16] This is an affirmative, active obligation. A permitting authority cannot simply collect the monitoring requirements that already

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[11] *See* S. Rep. No. 101-228, at 347, 348 (1989), *available at* https://heinonline.org/HOL/P?h=hein.usccsset/usconset13929&i=689.
[12] Operating Permit Program, Final Rule, 57 Fed. Reg. 32,250, 32,251 (July 21, 1992).
[13] 40 C.F.R. § 70.6(a)(3)(i)(B); *see also In the Matter of Mettiki Coal, LLC*, Order on Petition No. III-2013-1, at 7 (Sep. 26, 2014) [hereinafter Mettiki Order], *available at* https://www.epa.gov/sites/default/files/2015-08/documents/mettiki_decision2013.pdf.
[14] *See* Mettiki Order, *supra*, at 7; *see also Sierra Club v. EPA*, 536 F.3d 673, 680 (D.C. Cir. 2008).
[15] *See* Mettiki Order, *supra*, at 7-8; *see also* 40 C.F.R. § 70.7(a)(5) ("The permitting authority shall provide a statement that sets for the legal and factual basis for the draft permit conditions . . . .").
[16] LAC 33:III.507.H.1.

apply from the relevant regulations but must supplement them as necessary on a case-by-case basis to assure compliance with all permit terms and conditions.[17]

The permitting authority also is responsible for making the monitoring provisions specific and clear on the face of the permit. As EPA has explained, the public, not just regulators, must be able to "determine whether the limit has been exceeded, and, if so, to take appropriate enforcement action."[18] These provisions "must be written in sufficient detail to allow no room for interpretation or ambiguity in meaning. Requirements that are imprecise or unclear make compliance assurance impossible."[19]

Lastly, the permitting authority is required to explain its reasoning, and must prepare a statement of basis that sets forth "the legal and factual basis" for selecting draft permit conditions.[20] This document is not a box-checking exercise, but "must include a discussion of decision-making that went into the development of the Title V permit," including "the rationale for the monitoring methods selected," and offer "a record of the applicability and technical issues surrounding issuance of the permit."[21]

If a permitting authority proposes a Title V permit that fails to include and assure compliance with all applicable Clean Air Act requirements, EPA must object to the issuance of the permit before the end of its 45-day review period. 42 U.S.C. § 7661d(b)(1); 40 C.F.R. § 70.8(c). If EPA does not object to a Title V permit, "any person may petition the Administrator within 60 days after the expiration of the Administrator's 45-day review period . . . to take such action." 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). The Clean Air Act provides that EPA "shall issue an objection … if the petitioner demonstrates to the Administrator that the permit is not in compliance with the requirements" of the Act.[22] EPA must grant or deny a petition to object within 60 days of its filing. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

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[17] *Sierra Club v. EPA.*, 536 F.3d at 677, 680 ("[T]his mandate means that a monitoring requirement insufficient 'to assure compliance' with emission limits has no place in a permit unless and until it is supplemented by more rigorous standards.").

[18] *Id.* at 14. *See also* EPA Region 9, Title V Permit Review Guidelines at III-56 (Sep. 9, 1999) (The "practical enforceability" requirement is necessary "to assure the public's and EPA's ability to enforce the Title V permit is maintained, and to clarify for the Title V source its obligations under the permit."), *available at* https://www.epa.gov/title-v-operating-permits/monitoring-recordkeeping-and-reporting.

[19] *See* Letter from Bharat Mathur, EPA Region 5, to Robert F. Hodanbosi, Ohio Environmental Protection Agency (Nov. 21, 2001), *available at* https://www.epa.gov/title-v-operating-permits/monitoring-recordkeeping-and-reporting.

[20] 40 C.F.R. § 70.7(a)(5).

[21] EPA Region 5 Letter to Ohio EPA, re: Statement of Basis Guidelines (Dec. 20, 2001), *available at* https://www.epa.gov/title-v-operating-permits/monitoring-recordkeeping-and-reporting.

[22] *See* 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(c)(1); *see also N.Y. Pub. Int. Grp. v. Whitman*, 321 F.3d 316, 333 n.12 (2d Cir. 2003) (explaining that under Title V, "EPA's duty to object to non-compliant permits is nondiscretionary").

GROUNDS FOR OBJECTION

For all the reasons discussed below, EPA must object to the Proposed Title V permit for the MCA Geismar Site because the Proposed Title V Permit fails to satisfy substantive requirements of the Clean Air Act and EPA's Title V regulations.

I. THE PROPOSED TITLE V PERMIT'S MONITORING AND TESTING REQUIREMENTS CANNOT ENSURE COMPLIANCE WITH OPACITY LIMITS

In violation of 40 C.F.R. §§ 70.6(a)(3)(i)(B) and 70.6(c)(1), as well as the requirements from 42 U.S.C. §§ 7661c(a) and 7661c(c), the Proposed Title V Permit does not include adequate monitoring, testing, reporting, or recordkeeping requirements to ensure compliance with opacity limits for several emissions points at the facility, including but not limited to the Formalin Plant Thermal Oxidizer (EQT0007), the MMA Plant Thermal Oxidizer (EQT0008), the Combined Flare (EQT0009), and the Diesel Generator (EQT00012). *See* Comments, *supra*, at 34. While LDEQ updated the Proposed Title V Permit terms in response to Petitioners' Comments to include additional opacity monitoring requirements for the two thermal oxidizers, these updated terms are still not sufficient to ensure compliance with the 20-percent opacity limit, given that the updated monitoring provisions only apply to the two thermal oxidizers and not the other emissions points to which the 20-percent opacity limit applies, fail to ensure compliance for the continuously applicable limit, and fail to ensure compliance during night and certain weather conditions.

As Petitioners provided in their Comments on the draft permit, there are several instances in the permit in which the continuously applicable opacity limit of 20 percent applies. These specifically include both the Formalin Plant Thermal Oxidizer (EQT0007) and the MMA Plant Thermal Oxidizer (EQT0008), as well as the Combined Flare (EQT0009) and the Diesel Generator (EQT00012). Commenters specifically identified the two thermal oxidizers as primary examples of where the draft Title V permit failed to ensure compliance with the opacity standard, but noted that there are "a number of instances in which the permit fails to include adequate conditions to ensure compliance with the continuously applicable opacity limit of 20 percent."[23] For each of these emissions points, the permit includes continuous limits on opacity: "Opacity <= 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes." *See* Proposed Title V Permit, *supra*, at Specific Conditions 148 (Formalin Plant Thermal Oxidizer), 195 (MMA Plant Thermal Oxidizer), 196 (MMA Plant Thermal Oxidizer), 236 (Combined Flare), 238 (Combined Flare), 263 (Diesel Generator), 264 (Diesel Generator). For each of these specific requirements, the basis for the opacity limit is both LAC 33:III.1101.B and LAC 33:III.1311.C, with the exception of the Formalin Plant Thermal Oxidizer, for which the Proposed Title V Permit only cites LAC 33:III.1311.C. *See id.*

[23] *See* Comments, supra, at 34 n.155 ("*See also* Specific Requirements (providing opacity requirements for additional sources without adequate compliance methods)."); *id.* at 35 ("LDEQ should require Mitsubishi to use continuous opacity monitoring systems wherever opacity limits apply.").

At the time that Petitioners submitted comments on the draft permit, the only compliance method provided for the continuously applicable limit was a performance test once every five years and, for certain of the emissions points, "[d]etermine opacity by using Method 9 of 40 CFR Part 60, Appendix A or by using a continuous opacity monitoring system (COMS) meeting the requirements outlined in 40 CFR 60.13(c) and (d)."[24] In the Proposed Title V Permit, LDEQ has updated these compliance methods "to require Mitsubishi to conduct daily inspections for visible emissions from the Formalin Plant Thermal Oxidizer and MMA Plant Thermal Oxidizer," while maintaining Method 9 as the basis for the follow-up reading if emissions are detected.[25] Specifically:

> Permittee shall ensure compliance with the opacity limits of this permit by visually inspecting the Formalin Plant Thermal Oxidizer (EQT 0007) for visible emissions on a daily basis. If visible emissions are detected, the permittee shall conduct a six-minute opacity reading in accordance with Method 9 of 40 CFR 60, Appendix A. Records of visible emissions checks shall include the emission point ID number, a record if visible emissions were detected, and a record and the results of any Method 9 testing conducted. These records shall be kept onsite and available for inspection by the Office of Environmental Compliance. In lieu of performing daily visual inspections, the permittee may immediately perform a six-minute opacity reading in accordance with Method 9. The permittee shall also perform an opacity reading using Method 9 any time visible emissions from the thermal oxidizer are detected (i.e., during periods other than the scheduled daily visual inspection).

See Proposed Title V Permit, *supra*, at Specific Requirements 149, 199. While these updated requirements are an improvement over the draft Title V permit, they are not adequate to ensure compliance with a continuous opacity limit.

First, for the Formalin Plant Thermal Oxidizer and MMA Plant Thermal Oxidizer, visible observations once a day are not sufficient to assure compliance with the continuously applicable 20-percent opacity limit. The frequency of monitoring methods must bear a relationship to the averaging time used to determine compliance. *See Sierra Club v. EPA*, 536 F.3d at 675. As detailed below, EPA has frequently and recently reiterated the necessity of a sufficient monitoring method—and an adequate explanation of how this method connects to the emission limit—to ensure compliance with a continuously applicable limit. While daily observations are clearly an improvement over testing once every five years, daily observations are not capable of ensuring compliance with the opacity limit and not a substitute for the continuous opacity monitoring system that Petitioners raised in their Comments on the draft permit.

Second, for the Combined Flare and Diesel Generator, LDEQ did not update the Proposed Title V Permit to require daily visible inspections, even though the very same opacity limits as those for the thermal oxidizers apply to these emissions points. *See* Proposed Title V

[24] *See* Comments, supra, at 34 (citing Application, Appendix B, at 13, 14).
[25] *See* BoD, *supra*, at 53-54.

Permit, *supra*, at Specific Requirements 236, 238, 263, 264. Presumably, the only applicable compliance methods are the performance test once every five years and the requirement to "[d]etermine opacity by using Method 9 of 40 CFR Part 60, Appendix A or by using a continuous opacity monitoring system (COMS) meeting the requirements outlined in 40 CFR 60.13(c) and (d)." *Id.* at Specific Requirements 236, 263. For the same reasons as provided above and in Petitioners' Comments, these compliance methods are not sufficient to ensure compliance with the continuous opacity limits applicable to these emissions points.

Third, for all four emissions points, visual observations and Method 9 evaluations cannot be conducted at night or under weather conditions that make it difficult to detect opacity through visible observation (e.g., dark clouds). Thus, the thermal oxidizers, Combined Flare, and Diesel Generator essentially have a free pass from the opacity limits at night and under adverse weather conditions.

To remedy this issue, EPA should require LDEQ to revise the Proposed Title V Permit to mandate the use of continuous opacity monitoring systems for all four of these emissions points and wherever continuous opacity limits apply.

A. LDEQ's Response to Comments Is Inadequate to Address the Problems with the Proposed Title V Permit's Monitoring Requirements for the Continuous Opacity Limits.

LDEQ's Response to Comments is inadequate to address any of the above-discussed problems with the Proposed Title V Permit's monitoring requirements for opacity limits.

As an initial matter, LDEQ does not address Petitioners' argument that visual observations and Method 9 evaluations cannot be conducted at night or under weather conditions that make it difficult to detect opacity through visible observation. LDEQ apparently concedes that this is the case.

LDEQ makes two primary statements in its Response to Comments on this issue of monitoring requirements for opacity limits. First, LDEQ asserts that it "does not believe that continuous opacity monitoring systems (COMS) are warranted for sources that should typically operate with no visible emissions." BoD, *supra*, at 53. In support of this, LDEQ provides a quote from a policy document from EPA Region 7 that COMS on "clean gas-fired boilers or internal combustion engines … may not provide fruitful results."[26] Even on its face, this does not support LDEQ's proposition, as the emissions points in question are two thermal oxidizers, a diesel generator, and a flare, not a clean, gas-fired boiler or engine. Furthermore, the Region 7 policy document is clear that "COMS are the preferred visible emissions measurement technique. COMS create an unbiased, continuous, and permanent record of opacity."[27]

[26] *Id.* (citing EPA. Region 7 Policy on Periodic Monitoring for Opacity (April 18, 1997)), *available at* https://www.epa.gov/sites/default/files/2015-08/documents/opacity.pdf).
[27] *See* Region 7 Policy, *supra*, at 2.

LDEQ's second and final point is that it will amend the permit to require daily visual observations as a compliance method for the Formalin Plant Thermal Oxidizer and the MMA Plant Thermal Oxidizer. As discussed in detail above, this is an improvement over the draft permit's terms, but still falls short given that the opacity limit is continuous, the amended terms only apply to the thermal oxidizers, and the terms retain visual observations and Method 9 rather than more consistent and reliable monitoring via COMS.

In past Title V orders, EPA has found that infrequent visual observations cannot assure compliance with continuous opacity limits. For example, EPA found that a Title V permit record failed to sufficiently support the use of weekly Method 9 observations to assure compliance with a continuous opacity limit.[28] Similarly, EPA found that quarterly and biannual Method 9 observations were inadequate to assure compliance with opacity limits.[29] In the Bull Run Order, EPA found that the permitting agency "did not explain how twice-yearly Method 9 observations assure compliance with an opacity limit of 20 percent averaged over a six-minute period except for one 6-minute period per 1 hour of not more than 40 percent."[30]

For these reasons, the Proposed Title V Permit fails to provide monitoring, testing, and recordkeeping requirements sufficient to ensure compliance with the continuous opacity limits for the Formalin Plant Thermal Oxidizer (EQT0007), the MMA Plant Thermal Oxidizer (EQT0008), the Combined Flare (EQT0009) and the Diesel Generator (EQT00012).

II. THE PROPOSED TITLE V PERMIT'S MONITORING, TESTING, AND RECORDKEEPING REQUIREMENTS CANNOT ENSURE COMPLIANCE WITH HOURLY EMISSION LIMITS FOR THE FACILITY'S THERMAL OXIDIZERS, HEATERS, AND STARTUP BURNER

As Petitioners provided in their Comments, the Proposed Title V Permit contains hourly limits for NOx, CO, PM, VOCs, and GHG applicable to the facility's thermal oxidizers (EQT0007 and EQT0008), heaters (EQT0002, EQT0003, EQT0004, EQT0005), and POx Unit Startup Burner (EQT0006), yet no continuous emissions monitoring or other monitoring conditions sufficient to ensure compliance with all these hourly limits.

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[28] *See In the Matter of EME Homer City Generation L.P. Indiana County, Pennsylvania,* Order on Petition Nos. III-2012-06, III-2012-07, and III-2013-02, at 44 (June 30, 2014), *available at* https://www.epa.gov/sites/default/files/2015-08/documents/homer_response2012.pdf.

[29] *See In the Matter of Pacificorp's Jim Bridger and Naughton Electric Utility Steam Generating Plants,* Order on Petition No. VIII-00-1, at 19 (Nov. 16, 2000) (quarterly observations), *available at* https://www.epa.gov/sites/default/files/2015-08/documents/woc020.pdf**;** *In the Matter of Tennessee Valley Authority, Bull Run, Clinton, Tennessee,* Order on Petition No. IV-2015-14, at 11 (Nov. 10, 2016) [hereinafter Bull Run Order] (biannual observations), *available at* https://www.epa.gov/sites/default/files/2016-11/documents/tva_bull_run_order_granting_petition_to_object_to_permit_.pdf.

[30] Bull Run Order, *supra,* at 11-12.

For ease of reference, Petitioners have grouped discussion of these emission points and their hourly limits three categories based on their monitoring requirements and LDEQ's responses to comments.

A. Hourly VOC and PM Limits Formalin Plant Thermal Oxidizer (EQT0007) and MMA Plant Thermal Oxidizer (EQT0008).

For the facility's two thermal oxidizers—the Formalin Plant Thermal Oxidizer (EQT0007) and MMA Plant Thermal Oxidizer (EQT0008)—the Proposed Title V Permit includes hourly and annual emissions limits for emissions of NOx, CO, PM, and VOCs, and annual emissions limits for greenhouse gases (in CO_{2e}),[31] yet only includes continuous emissions monitoring for ensuring compliance with the NOx and CO hourly emissions limits. As Petitioners provided in their Comments, the compliance methods for the hourly limits not monitored by continuous emissions monitoring—namely VOCs and PM—are "3 1-hr test run every 5 years using EPA reference methods," with methods varying based on pollutant, and "[n]either Mitsubishi nor LDEQ provide how testing every five years can ensure compliance with hourly emissions limits or why it was not possible to require compliance via continuous emissions monitoring for all of the thermal oxidizer's emissions." *See* Comments, *supra*, at 33.

In its Response to Comments, LDEQ has provided further detail on the monitoring requirements that it believes will ensure compliance with both the thermal oxidizers' hourly limits for VOCs: namely, continuous monitoring of the temperature in the firebox in order to "maintain[] the daily average temperature in the firebox above the value established in the initial performance test. *See* BoD, *supra*, at 49-50. For the hourly limits for PM, LDEQ has responded with different approaches:

- For the Formalin Plant Thermal Oxidizer, LDEQ states that the annual emissions are "only 3.50 tons per year" and states generally that "proper operation of the unit in compliance with applicable federal will minimize products of incomplete combustion." *Id.* at 49.
- For the MMA Plant thermal oxidizer, LDEQ has stated that it amended the permit to "establish monitoring and recordkeeping requirements to ensure the bag filter is maintained and functioning properly," including daily inspections of the bag filter. *Id.* at 50.

These clarified and additional requirements still fail to ensure compliance with the thermal oxidizers' hourly limits for VOCs and PM.

EPA has previously found that periodic stack testing alone is insufficient to ensure compliance with short-term emissions limits.[32] "However, in certain circumstances, stack testing

[31] *See* Proposed Title V Permit, *supra*, Emission Rates for Criteria Pollutants and CO2e, at 1-2 (providing hourly and annual emission limits for EQT0007 and EQT0008).

[32] *See In the Matter of Covanta Delaware Valley LP, Delaware Valley Resource Recovery*, Order on Petition No. III-2023-10, at 12 (Nov. 2, 2023) [hereinafter Covanta Order], *available at* https://www.epa.gov/system/files/documents/2023-11/covanta-delaware-valley-order_11-02-2023.pdf.

every 5 years, when used in conjunction with other more frequent monitoring techniques (such as continuous parametric monitoring), could be appropriate, *when viewed as a whole,* where the permitting authority provides an adequate justification explaining the sufficiency of the monitoring scheme."[33]

The adequacy of this explanation is key to determining the sufficiency of the monitoring requirements, and EPA has pointed to certain factors that the agency must address in this explanation and the permit record, including the variability of the emissions and how the monitoring of other parameters will actually ensure compliance with the ultimate emissions limit.[34] These factors specifically include:

> (1) the variability of emissions from the unit in question; (2) the likelihood of a violation of the requirements; (3) whether add-on controls are being used for the unit to meet the emission limit; (4) the type of monitoring, process, maintenance, or control equipment data already available for the emission unit; and (5) the type and frequency of the monitoring requirements for similar emission units at other facilities.[35]

As EPA has further explained, "to the extent that specific permit terms (e.g., monitoring or recordkeeping provisions) are relied upon to assure compliance with emission limits, the Permit should clearly state the connection between the compliance assurance provisions and the associated limits, and the permit record must explain how those requirements assure compliance with the relevant limits."[36] This is a context-specific inquiry, and this is where LDEQ fails to

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[33] *See In the Matter of Yuhuang Chemical Inc. Methanol Plant*, Order on Petition No. VI-2015-03, at 18 n.16 (Aug. 31, 2016) [hereinafter Yuhuang I Order] (citing *In the Matter of Kentucky Syngas, LLC,* Order on Petition No. IV-2010-9, at 48-49, 51 (June 22, 2012); *In the Matter of Public Service of New Hampshire, Schiller Station,* Order on Petition No. Vl-2014-04, at 14-16 (July 28, 2015); *In the Matter of Public Service Company of Colorado, dba Xcel Energy, Cherokee Station,* Order on Petition No. VIII-2010-XX, at 11-12 (Sep. 29, 2011)) (emphasis in original), *available at* https://www.epa.gov/sites/default/files/2016-09/documents/yuhuang_response2015_0.pdf.

[34] *In the Matter of Union Carbide Corporation, Union Carbide Institute Facility,* Order on Petition No. III-2023-16, at 11-12 (May 24, 2024) [hereinafter Union Carbide Order] (citing *In the Matter of CITGO Refining and Chemicals Company, L.P.*, Order on Petition No. VI-2007-01 at 7–8 (May 28, 2009)), *available at* https://www.epa.gov/system/files/documents/2024-06/union-carbide-petition-order-5-24-24.pdf.

[35] *Id.*

[36] *See id.* at 12 (citing *In the Matter of U.S. Steel Corp., Edgar Thomson Plant*, Order on Petition No. III-2023-15 at 16 (Feb. 7, 2024); *In the Matter of Valero Refining-Texas, L.P., Valero Houston Refinery*, Order on Petition No. VI-2021-8 at 41 (June 30, 2022) [hereinafter Valero Houston Order], *available at* https://www.epa.gov/system/files/documents/2022-07/Valero%20Houston%20Order_6-30-22_0.pdf; *In the Matter of Owens-Brockway Glass Container Inc.,* Order on Petition No. X-2020-2 at 14-15 (May 10, 2021) [hereinafter Owens-Brockway Order]).

ensure compliance—and fails to provide an adequate explanation—with the thermal oxidizers' hourly VOC and PM limits.

For the VOC hourly limits, for example, LDEQ relies on continuous monitoring of the thermal oxidizers' firebox temperature to ensure that the daily average temperature remains within the range established during the initial performance testing. *See* BoD, *supra*, at 49-50. For one, it is not clear how maintenance of a "daily average" temperature can ensure that the thermal oxidizers will meet their hourly VOC limits. As discussed above, the frequency of monitoring methods must bear a relationship to the averaging time used to determine compliance. *See Sierra Club v. EPA*, 536 F.3d at 675. Additionally, there is more that goes into the hourly emissions of VOCs than just proper firebox temperature. As LDEQ states in the Proposed Title V Permit, the temperature provision derives from 40 C.F.R. Part 63 Subpart G requirements that "establish a range for the parameter that indicates proper operation of the control or recovery device." *See* Proposed Title V Permit, *supra*, Specific Requirements 145, 147, 172, 174. While maintaining this temperature range may determine whether the thermal oxidizers are operating at their 98-percent destruction efficiency, the hourly emissions from the thermal oxidizers also depend on other factors, including the throughput and content of the material sent to the thermal oxidizers. This is a factor specific to this facility and its operation, so compliance with general standards for ensuring proper operation of a control device "is not specific to this facility and does not correlate the . . . emission limits in the Permit."[37]

For similar reasons, the monitoring requirements for the thermal oxidizers do not ensure compliance with the hourly PM emissions limits, and LDEQ has failed to provide an adequate explanation in its Response to Comments or elsewhere in the permit record. First, for the Formalin Plant Thermal Oxidizer, LDEQ generally references that "proper operation of the unit accordance with applicable federal regulations will minimize products of incomplete combustion" and otherwise seems to make the case that the annual emissions are "only 3.50 tons per year" are too small to warrant much concern. BoD, *supra*, at 49. To the extent that LDEQ is referencing the Subpart G firebox temperature requirements, these also fail to ensure compliance with the hourly PM limits. And as EPA has previously stated, general claims of ensuring proper combustion are not sufficient to demonstrate compliance with specific emissions limits.

For the MMA Plant Thermal Oxidizer, LDEQ has amended the permit to add additional monitoring requirements for the bag filter, given that "inorganic catalyst components will not be combusted in the unit and will therefore remain in the flue gas as particulate. For this reason, the thermal will be equipped with a bag filter to control PM emissions." BoD, *supra*, at 50. While these are an improvement over the draft Title V permit, the requirements are not sufficient to ensure compliance with the hourly PM limit. The most frequent of these requirements is that Mitsubishi must monitor the bag filter's differential pressure "by technically sound method daily to determine whether a breach of the filter has occurred." *See* Proposed Title V Permit, *supra*, Specific Requirement 197; BoD, *supra*, at 50. Putting aside the fact that the permit does not specify the actual method of monitoring—which is a violation in itself—this monitoring requirement is not sufficient to ensure compliance with the hourly PM limit, as it is daily parametric monitoring for an hourly emissions limit and LDEQ has failed to offer any adequate

[37] *See* Covanta Order, *supra*, at 13.

demonstration as to how monitoring of the bag filter for proper operation directly connects to the required hourly emission rate.

For these reasons, the Proposed Title V Permit fails to provide monitoring, testing, and recordkeeping requirements sufficient to ensure compliance with the VOC and PM hourly emission limits for the Formalin Plant Thermal Oxidizer and the MMA Plant Thermal Oxidizer.

1. LDEQ's Response to Comments is Not Adequate to Address the Permit's Failure to Ensure Compliance with the Hourly VOC and PM Limits for the Formalin Plant Thermal Oxidizer (EQT0007) and MMA Plant Thermal Oxidizer (EQT0008)

In the main discussion above, Petitioners have simultaneously addressed in detail LDEQ's responses to comments with respect to their Comments on the permit's failure to ensure compliance with the hourly limits for the Formalin Plant Thermal Oxidizer (EQT0007) and MMA Plant Thermal Oxidizer (EQT0008). For the reasons stated above, LDEQ's responses to comments are inadequate to address any of the problems with the Proposed Title V Permit's monitoring requirements.

B. Hourly CO, PM, and VOC Limits for the CO MeOH Fired Heater (EQT0002)

Similar to the thermal oxidizers, the Proposed Title V Permit includes hourly and annual emissions limits for the CO MeOH Fired Heater's emissions of NOx, CO, PM, and VOCs, and annual emissions limits for greenhouse gases (in CO_{2e}),[38] yet includes continuous emissions monitoring only for NOx. As Petitioners raised in their Comments on the draft permit, the listed compliance methods for CO, PM, and VOCs are "3 1-hr test run every 5 years using EPA reference methods," with methods varying based on pollutant, and "[n]either Mitsubishi nor LDEQ provide how testing every five years can ensure compliance with hourly emissions limits or why it was not possible to require compliance via continuous emissions monitoring for CO, PM, and VOCs." *See* Comments, *supra*, at 33-34.

In its Response to Comments, LDEQ has offered three primary points in clarification and response, but none of these provides adequate explanation or cures the underlying problem with the permit's failure to ensure compliance with the hourly limits. With regard to the hourly limit for CO, LDEQ provides that although the heater is not subject to 40 C.F.R. Part 63 Subpart DDDD, "LDEQ's BACT determination for CO requires the heater to comply with the tune-up provisions in the gas 1 subcategory." *See* BoD, *supra*, at 51. LDEQ provides five examples of actions involved in the tune-up, including inspecting the burner, inspecting the system controlling the air-to-fuel ratio, optimizing emissions of CO, and "measuring concentrations of CO in the effluent stream before and after adjustments are made to the burner." *Id.* There are a several significant problems with these requirements, and they are accordingly not sufficient to ensure compliance with the hourly CO limit.

[38] *See* Proposed Title V Permit, *supra*, Emission Rates for Criteria Pollutants and CO2e, at 1-2 (providing hourly and annual emission limits for EQT0002).

First, none of the requirements have a specified frequency—e.g., two are provided "as necessary"—and accordingly fail to bear any relationship whatsoever to the averaging time used to determine compliance. *See Sierra Club v. EPA*, 536 F.3d at 675. Second, LDEQ's description of what is required differs significantly from what appears in the specific requirements for the CO MeOH Fired Heater in the permit itself. While LDEQ does not identify which specific condition it is discussing, it appears to be Specific Condition 123, which provides:

> -- Utilize oxidation catalyst in combination with good combustion practices and proper equipment design and operation during normal operation to limit CO <= 5 ppmvd (hourly average);
> -- Good combustion practices and proper equipment design and operation to limit CO <= ppmvd (hourly average, startups/shutdowns <= 100 hours/year

Proposed Title V Permit, *supra*, Specific Condition 123. These terms are far more vague than the ones LDEQ has provided in the Response to Comments, and terms such as "[g]ood combustion practices" are not at all enforceable.[39]

LDEQ also points out that "the heater will be equipped with an oxygen trim system," which in combination with the Subpart DDDDD requirements "provide a reasonable assurance of ongoing compliance with permit limits. Therefore, PM and CO CEMS are not warranted." BoD, *supra*, at 51. However, LDEQ has provided no citation for this oxygen trim system in the Proposed Title V Permit, and Petitioners have been unable to find it in the Title V permit as a requirement or even reference. In a similar scenario where LDEQ attempted to justify that it properly ensured compliance with an annual CO limit based on an unrequired oxygen trim system, EPA objected to the permit:

> LDEQ's response appears to suggest that this infrequent stack testing, in combination with the use of a continuous oxygen trim system, would be sufficient to ensure compliance with the annual CO emission limits. However, LDEQ does not point to any permit term that would require the facility to install or use a continuous oxygen trim system. Moreover, even if such a system were required by the permit, LDEQ does not explain how data from such a system would be used to demonstrate compliance with the annual CO limit . . . .[40]

For the same reasons, LDEQ fails to provide an adequate explanation here and does not ensure compliance with hourly CO and PM limits.

Finally, with regard to the hourly VOC limit, LDEQ points out that "the CO MeOH Fired Heater will be subject to 40 C.F.R. Subpart NNNa and Subpart RRRa," which LDEQ asserts will

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[39] *See In the Matter of ExxonMobil Corp., Baytown Chemical Plant*, Order on Petition No. VI-2020-9, at 18 (March 18, 2022) [hereinafter ExxonMobil Baytown Order] (finding "vague, high-level references render it impossible to determine which of these requirements of the subpart DDDDD NESHAP are applicable"), *available at* https://www.epa.gov/system/files/documents/2022-04/exxonmobil-baytown-order_3-18-22.pdf.

[40] *See* Yuhuang I Order, *supra*, at 18.

require continuous monitoring of the firebox temperature to maintain it above the minimum temperature determined in "the most recent performance test at which compliance was demonstrated." BoD, *supra*, at 51. Petitioners raise two key problems with these requirements. First, the Proposed Title V Permit does not include any of the provisions that LDEQ references in its Response to Comments. Instead, the permit includes requirements from 40 C.F.R. Part 60 Subpart NNN and Subpart RRR, which are earlier iterations of Subparts NNNa and RRRa and which are inapplicable to the MCA Geismar site. *See*, *e.g.*, Proposed Title V Permit, *supra*, Specific Conditions 98 (including reference to "Subpart NNN" and 40 C.F.R. § 60.664(a)), 103 (including reference to "Subpart RRR" and 40 C.F.R. § 60.704(a)); *see also* 40 C.F.R. § 60.660(b) ("The affected facility is any of the following for which construction, modification, or reconstruction commenced after December 30, 1983, and on or before April 25, 2023"). In other words, as with the fenceline monitoring claim discussed herein, LDEQ has failed to include applicable requirements in the permit.

Second, LDEQ's attempt to use the firebox temperature requirements of Subparts NNN/NNNa and RRR/RRRa for the purposes of ensuring compliance with the hourly VOC limits faces the same issues as discussed above with the thermal oxidizers' hourly VOC limits. While it appears that Subparts NNNa and RRRa have a more frequent averaging time than Subpart G—a three-hour average rather than daily—the problem remains that the CO MeOH Fired Heater and its VOC limits are specific to the MCA Geismar Site, with their own inherent factors, and so compliance with general standards "is not specific to this facility and does not correlate the . . . emission limits in the Permit."[41] LDEQ has not adequately demonstrated how compliance with the Subparts NNNa and RRRa will ensure that the heater's emissions remain below the hourly VOC limits.

For these reasons, the Proposed Title V Permit fails to provide monitoring, testing, and recordkeeping requirements sufficient to ensure compliance with the CO, PM, and VOC hourly emission limits for the CO MeOH Fired Heater.

1. LDEQ's Response to Comments is Not Adequate to Address the Permit's Failure to Ensure Compliance with the Hourly CO, PM, and VOC Limits for the CO MeOH Fired Heater (EQT0002)

In the main discussion above, Petitioners have simultaneously addressed in detail LDEQ's responses to comments with respect to their Comments on the permit's failure to ensure compliance with the hourly CO, PM, and VOC limits for the CO MeOH Fired Heater (EQT0002). For the reasons stated above, LDEQ's responses to comments are inadequate to address the issues Petitioners have raised with the Proposed Title V Permit's monitoring requirements.

C. Hourly and Annual Limits for the MMA HTF Plant Package Heaters (EQT0003-0005) and POx Unit Startup Burner (EQT0006)

For the facility's three MMA HTF Plant Package Heaters (EQT0003, EQT00034, and EQT0005), the Proposed Title V Permit includes hourly and annual emissions limits for the CO

[41] Covanta Order, *supra*, at 13.

MeOH Fired Heater's emissions of NOx, CO, PM, and VOCs, and annual emissions limits for greenhouse gases (in CO_{2e}),[42] yet includes continuous emissions monitoring only for NOx.[43] For the facility's POx Unit Startup Burner (EQT00006), the Proposed Title V Permit includes hourly and annual emissions limits for the CO MeOH Fired Heater's emissions of NOx, CO, PM, and VOCs, and annual emissions limits for greenhouse gases (in CO_{2e}),[44] yet continuous emissions monitoring for none of these pollutants. As Petitioners raised in their Comments on the draft permit, the listed compliance methods are "'3 1-hr test run every 5 years using EPA reference methods,' with methods varying based on pollutant." *See* Comments, *supra*, at 33-34.

In its Response to Comments, LDEQ has asserted that it will be able to ensure compliance with the heaters' and POx Unit Startup Burner's hourly CO, PM, and VOC limits by use of the Subpart DDDDD tune-up provisions and—for the heaters but not the POx Unit Startup Burner—use of oxygen trim systems. *See* BoD, *supra*, at 52, 53; Proposed Title V Permit, *supra*, Specific Conditions 1-12. As provided with respect to the CO MeOH Fired Heater and other units above, these are not sufficient to ensure compliance with the heaters' hourly emissions limits. First, as discussed above, EPA has previously found on several occasions that "periodic stack testing alone is insufficient to assure compliance with short-term emission limits."[45] EPA has also added the proviso that "in certain circumstances, stack testing every 5 years, when used in conjunction with other more frequent monitoring techniques (such as continuous parametric monitoring), could be appropriate, *when viewed as a whole*, where the permitting authority provides an adequate justification explaining the sufficiency of the monitoring scheme."[46]

But this is not the case here. While the Subpart DDDDD tune-up provisions are in addition to the stack testing, their requirements are not "more frequent monitoring techniques"—as they also apply once every five years—and are certainly not "continuous parametric monitoring." Additionally, the provisions fall short of ensuring compliance with the hourly limits, as LDEQ has failed to demonstrate exactly *how* compliance with the tune-up provisions will ensure compliance with the specific CO, PM, and VOC hourly limits the permit sets for the three heaters and the POx Unit Startup Burner.[47] LDEQ makes the broad and general assertion that compliance with the Subpart DDDDD tune-up provisions in conjunction with the oxygen trim system "ensure the optimal combustion efficiency is maintained at all times, thereby

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[42] *See* Proposed Title V Permit, *supra*, Emission Rates for Criteria Pollutants and CO2e, at 1-2 (providing hourly and annual emission limits for EQT0003, EQT0004, EQT0005, and EQT0006).

[43] Petitioners asserted in their Comments that the units did not have continuous emissions monitoring for any pollutant, but LDEQ has since clarified in its Response to Comments that all three heaters have continuous emissions monitoring for NOx. *See* BoD, *supra*, at 52.

[44] *See* Proposed Title V Permit, *supra*, Emission Rates for Criteria Pollutants and CO2e, at 1-2 (providing hourly and annual emission limits for EQT0003, EQT0004, EQT0005, and EQT0006).

[45] *See* Covanta Order, *supra*, at 12 (citing *In the Matter of Oak Grove Management Company, Oak Grove Steam Electric Station*, Order on Petition No. VI-2017-12, at 25–26 (Oct. 15, 2021); Owens-Brockway Order, *supra*, at 14-15).

[46] *See* Yuhuang I Order, *supra*, at 18 n.16.

[47] *See*, *e.g.*, Covanta Order, *supra*, at 13.

minimizing products of incomplete combustion, hydrocarbons that are not fully combusted, and emissions attributed to poor air-fuel mixing, and provide a reasonable assurance of ongoing compliance with permit limits." BoD, *supra*, at 52. While ensuring good combustion efficiency may be the goal of the Subpart DDDDD tune-up provisions, there is additional explanation and data that must be put forward to show that these provisions will achieve the hourly emissions limit for these three pollutants set out in the permit for these specific heaters and the POx Unit Startup Burner.[48] LDEQ has not done so here.

Additionally, LDEQ's Response to Comments relies on the oxygen trim system for the heaters, but—as discussed in detail above with respect to the CO MeOH Fired Heater—the system appears nowhere as a requirement in the permit. This explanation should fail, as it did in the Yuhuang I Order.[49]

Finally, for the heaters' compliance with the GHG hourly limit, LDEQ asserts without basis or specific showing that "CO2 can be readily calculated using one of the four methodologies set forth in 40 CFR 98.33(a) in Subpart C (General Stationary Fuel Combustion Sources) of 40 CFR 98 (Mandatory Greenhouse Gas Reporting)." BoD, *supra*, at 52. This is far short of the specificity that the Clean Air Act and EPA's regulations require and is more akin to the "vague, high-level references" that EPA has rejected before. *See* ExxonMobil Baytown, *supra*, at 18.

For these reasons, the Proposed Title V Permit fails to provide—and LDEQ fails to provide adequate explanation of—monitoring, testing, and recordkeeping requirements sufficient to ensure compliance with the CO, PM, and VOC hourly emission limits for the MMA Plant HTF Package Heaters and the POx Unit Startup Burner.

1. <u>LDEQ's Response to Comments is Not Adequate to Address the Permit's Failure to Ensure Compliance with the Hourly and Annual Limits for the MMA HTF Plant Package Heaters (EQT0003-0005) and POx Unit Startup Burner (EQT0006)</u>

In the main discussion above, Petitioners have simultaneously addressed in detail LDEQ's responses to comments with respect to their Comments on the permit's failure to ensure compliance with the hourly limits for the MMA HTF Plant Package Heaters (EQT0003-0005) and POx Unit Startup Burner (EQT0006). For the reasons stated above, LDEQ's responses to comments are inadequate to address the issues Petitioners have raised with the Proposed Title V Permit's monitoring requirements.

[48] *See* Union Carbide Order, *supra*, at 12 ("the Permit should clearly state the connection between the compliance assurance provisions and the associated limits, and the permit record must explain how those requirements assure compliance with the relevant limits.") (citations omitted).

[49] *See* Yuhuang I Order, *supra*, at 18.

III. THE PROPOSED TITLE V PERMIT FAILS TO INCLUDE FENCELINE MONITORING AS AN APPLICABLE REQUIREMENT

In their Comments, Petitioners raised the issue that LDEQ must require fenceline monitoring as BACT for fugitive emissions for several reasons, including because fenceline monitoring would be required for the MCA Geismar Site under the then-proposed Hazardous Organic National Emissions Standards for Hazardous Air Pollutants ("Hazardous Organic NESHAP," or "HON Rule"). *See* Comments, *supra*, at 30 n.135. In the time since Petitioners' Comments, EPA finalized the HON Rule, which retained the fenceline monitoring requirement for sources emitting benzene, including the MCA Geismar Site.[50] In other words, the final HON Rule has superseded Petitioners' BACT comment, as it is now a NESHAP requirement that must appear in the Proposed Title V Permit.

LDEQ states in its Response to Comments, however, that "it is not clear that Mitsubishi will be subject to fenceline monitoring requirements for benzene." *See* BoD at 47 (Response to Comment No. 30). The now-finalized HON Rule constitutes after-arising grounds, 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d); *see also* 40 C.F.R. § 70.12(a)(2)(v), and LDEQ must determine and include all applicable requirements in the Proposed Title V Permit. As finalized, the HON Rule requires Mitsubishi to conduct fenceline monitoring.

A. LDEQ's Response to Comments is Inadequate to Resolve the Proposed Title V Permit's Failure to Require Fenceline Monitoring.

At a minimum, to include all applicable requirements, LDEQ must determine and clearly state whether or not the HON Rule requires Mitsubishi to conduct fenceline monitoring. For example, in an order granting in part a petition for objection to a Title V operating permit, EPA explained: "the Petitioners have demonstrated that the permit record is unclear as to the applicability of 40 C.F.R. § 60 subpart Eb, and [Pennsylvania's Department of Environmental Protection's Response to Comments] does not clarify the issue."[51] Similarly, LDEQ's Response to Comments fails to clarify whether Mitsubishi must conduct fenceline monitoring or not.

B. The Record Does Not Support LDEQ's Failure to Require Fenceline Monitoring Under the Now-Finalized HON rule.

LDEQ states that it could not determine whether Mitsubishi will be subject to fenceline monitoring requirements for benzene. BoD at 47, Response to Comment No. 30. Under the now-finalized HON Rule, Mitsubishi will be required conduct fenceline monitoring.

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[50] *See* 89 Fed. Reg. at 42,932 (EPA "is finalizing a fenceline monitoring work practice standard for certain hazardous air pollutants (HAP)"); 40 C.F.R. § 63.184 (fenceline monitoring provisions).

[51] *See* Covanta Order, *supra*, at 10; *see also* ExxonMobil Baytown Order, *supra*, at 16 (granting petition where "the Permit does not include or adequately incorporate the specific applicable requirements of the subpart DDDDD NESHAP to which the Baytown Chemical Plant is subject.").

Under the final HON Rule, the fenceline monitoring provisions apply to "each source" as defined in 40 C.F.R. § 63.101. 40 C.F.R. § 63.184 (fenceline monitoring provisions). A source is "the collection of emission points" that meet the applicability criteria of 40 C.F.R. § 63.100. *Id.* § 63.101. To meet the applicability criteria, a chemical manufacturing process unit must (1) manufacture a chemical listed in table 1 of the subpart (or other specified chemicals), (2) use as a reactant or manufacture as a product a chemical listed in table 2 of the subpart, and (3) be located at a major source. Both Table 1 and 2 include methyl methacrylate, methanol, and formaldehyde. *See also* Application Binder 1 at 2-5 ("Formaldehyde, methanol and MMA are listed SOCMI chemicals…"). If a chemical manufacturing process unit "uses, produces, stores, or emits" one or more of the six fenceline monitoring pollutants (benzene, 1,3 butadiene, ethylene dichloride, vinyl chloride, ethylene oxide, and chloroprene), it must monitor for those pollutants at the fenceline.

In its permit application, Binder 1 at 1-1, Mitsubishi describes three units: (1) the MMA plant, which manufactures MMA from ethylene, methanol, carbon monoxide, and formalin; (2) a combined CO/Methanol plant, which manufactures carbon monoxide and methanol from natural gas and oxygen; and (3) a formalin plant, which converts methanol to manufacture formaldehyde solution. Thus, all three plants are relevant chemical manufacturing process units because they each respectively manufacture methyl methacrylate, methanol, and formaldehyde, and because the MCA Geismar Site is a major source.

LDEQ states that it is unsure whether Mitsubishi will be subject to fenceline monitoring requirements for benzene because benzene emissions can result from the combustion of natural gas, for example in boilers. BoD at 47. Indeed, benzene is present in natural gas.[52] EPA has explained that combustion emissions from boilers and the like will not trigger fenceline monitoring requirements because boilers are not chemical manufacturing process units under 40 C.F.R. § 63.100—*i.e.,* they do not manufacture chemicals. *See* 89 Fed. Reg. at 43,006.

But Mitsubishi's CO/Methanol plant is a relevant chemical manufacturing process unit. It manufactures methanol, a chemical listed in both Table 1 and Table 2 of Subpart F. And given that manufacturing process requires natural gas, which contains benzene, the CO/Methanol plant necessarily may emit benzene, such as through equipment leaks. Additionally, though Mitsubishi optimistically predicts zero fugitive emissions of benzene from their CO/Methanol plant, Binder 1 at Table 1-1, Mitsubishi does predict benzene emissions from the combined flare that the CO/Methanol plant (among other units) directs too. Because the chemical reaction uses natural gas, these flared benzene emissions may not solely be attributable to boiler combustion of natural gas.

Moreover, preventing fugitive emissions of dangerous pollutants, like benzene, is the goal of the HON Rule's fenceline monitoring provisions. The Rule's requirement for Mitsubishi

[52] *See, e.g.*, Downstream Natural Gas Composition Across U.S. and Canada: implications for indoor methane leaks and hazardous air pollutant exposures, Environmental Research Letters (June 4, 2024), *available at* https://iopscience.iop.org/article/10.1088/1748-9326/ad416c ("Nearly all (97% of) gas samples contained benzene").

to conduct fenceline monitoring for benzene (and any of the other 5 pollutants its chemical process units may use, produce, store, or emit[53]), serves that goal.

IV. ENVIRONMENTAL JUSTICE CONCERNS MANDATE INCREASED FOCUS AND ACTION BY EPA TO ENSURE THAT THE PROPOSED TITLE V PERMIT'S PROVISIONS ARE STRONG AND COMPLY WITH TITLE V AND OTHER CLEAN AIR ACT REQUIREMENTS.

As Petitioners provided to LDEQ in their Comments on the draft permit, there are serious environmental justice concerns involving the MCA Geismar Site. The environmental justice indexes for the area within three miles of the site are in the 75th percentile in the state (and the 82nd percentile in the country) for toxic releases to the air, and in the 86th percentile in the state (and 85th in the country) for air toxics cancer risk.[54] This means that the people living within three miles of the site have more air toxics and cancer risk than 75% and 82% of Louisiana's population respectively (and 82% and 85% of the U.S. population).[55] Put another way, the area around the site is in the bottom quarter of the state when it comes to air toxics, and bottom fifth when it comes to cancer risk. In fact, 8 of the 13 environmental justice indexes are above the 60th percentile for the state, which means the area has greater environmental injustice in particulate matter exposure, ozone, proximity to a facility the law deems at risk of suffering chemical disasters, proximity to hazardous waste, etc.[56]

A. LDEQ'S Response Regarding These Environmental Justice Concerns Fails to Demonstrate that EPA Could or Should Ignore These Important Factors.

On cancer risk, LDEQ responds that the risk may be overestimated. BoD at 58. LDEQ suggests the risk may be overestimated because ethylene oxide emissions in Ascension Parish went down between 2019 and 2022. But emissions have increased at some facilities and in neighboring parishes. For example, emissions reporting indicates that the Dow facility in Iberville Parish increased its emission of ethylene oxide by more than eight-fold, from 3,964 pounds in 2022 to 34,551 pounds in 2023.[57] And, other ethylene oxide emitting facilities are

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[53] Petitioners note that other MMA plants appear to emit other relevant pollutants. For example, the Evonik Cyro MMA plant, which emits vinyl chloride. *See* EPA ECHO, https://echo.epa.gov/air-pollutant-report?fid=110049249075. LDEQ and/or EPA should look to the emission of other MMA plants, such as the new MMA plant in Bay City, Texas, in developing the Mitsubishi permit's fenceline monitoring requirements.

[54] EPA, EJScreen, https://ejscreen.epa.gov/mapper/ (generating report for 3 mile ring from coordinates 30.206785, -90.997948) (generated Feb. 5, 2024). The resulting EJScreen Community Report is included with the attached Comments.

[55] EPA, *How to Interpret EJScreen Data*, https://www.epa.gov/ejscreen/how-interpret-ejscreen-data (last visited Sep. 9, 2024).

[56] *See* EJScreen Community Report, attached to Petitioners' Comments.

[57] *See* Annual Certified Emission Data 2015-present (updated 2/14/2024), at https://www.deq.louisiana.gov/page/eric-public-reports.

under construction, like Formosa in St. James Parish, which may emit up to 7.5 tons of ethylene oxide (or more than 16,500 pounds).[58]

LDEQ also responds that the cancer risk is only 69 per million, which is less than EPA's "acceptable" risk of 100 in 1 million. First, this response ignores that the cancer risk is worse than in most parts of the state. Second, this value appears to be an average across the 3 mile ring and thus hides hotspots. Cancer risk is as high as 1 in 390—26 times EPA's "acceptable" risk—immediately next to where the facility is proposed.[59]

Finally, on cancer risk, LDEQ states that the HON Rule will "reduce risk to an acceptable level and provide an ample margin of safety to protect health *from source category emission points*." BOD at 30 (emphasis added). While it is true that the HON Rule will reduce risk from HON sources, and EPA has found this reduction will reduce risk from HON sources to an acceptable level, there are other sources of cancer risk in Ascension Parish. LDEQ cannot claim that there will be no environmental justice concerns in cancer risk after the implementation of the HON Rule.

On air toxics, LDEQ's problematically responds that Ascension parish already has a large amount of toxic releases to air; that the MCA Geismar site's proposed emissions will not be as toxic as ethylene oxide; and, thus, that the site's additions of air toxics emissions in Ascension Parish will not have an "appreciable impact." BoD at 59. LDEQ misses the point of an environmental justice analysis. The fact that an area is already overburdened with toxic air pollution supports reducing that pollution, not adding more.

LDEQ also claims to consider three additional environmental indicators. But LDEQ dismisses RMP facility proximity as "not a measure of risk or exposure to a given pollutant." BoD at 59. On ozone, it compares the value (61.6 ppb) to the national ambient air quality standard ("NAAQS") (70 ppb), ignoring that the Dutchtown monitor's ozone levels are worse than most parts of the state; that concentrations as low as 60 ppb can be harmful, 85 Fed. Reg. 87,256, 87,265 (Dec. 31, 2020); and that EPA is currently reconsidering the NAAQS.[60] LDEQ does not address the other EJ indexes, such as particulate matter; diesel particulate matter; air toxics respirator hazard index; or hazardous waste proximity. LDEQ's failure to consider particulate matter is particularly problematic given the site's emission's proximity to the significant impact level ("SIL").

As Petitioners explained in their Comments, environmental justice concerns are especially germane to a Title V permitting authority's duty to assure compliance with all

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[58] *See* FG LA LLC, Ethylene Glycol 2 Plant, Part 70 Permit Renewal Application (July 3, 2024), *available at* https://edms.deq.louisiana.gov/app/doc/view?doc=14374463.
[59] The Most Detailed Map of Cancer-Causing Industrial Air Pollution in the U.S., https://projects.propublica.org/toxmap/ (last visited Sep. 9, 2024).
[60] *See* Policy Assessment for the Reconsideration of the Ozone National Ambient Air Quality Standards, External Review Draft Version 2 (Mar. 2023), https://www.epa.gov/system/files/documents/2023-03/O3_Recon_v2_Draft_PA_Mar1-2023_ERDcmp_0.pdf.

applicable requirements. Specifically, EPA has stated that "Title V can help promote environmental justice through its underlying public participation requirements and through the requirements for monitoring, compliance certification, reporting and other measures intended to assure compliance with applicable requirements."[61]

In these circumstances, there is a compelling need for EPA to devote increased, focused attention to ensure that all Title V requirements have been complied with. EPA has recognized this in responding to prior Title V permit petitions.[62] And in sum, LDEQ's Response to Comments does not rebut the fact that this Proposed Title V Permit exacerbates environmental injustice —and does nothing to change EPA's responsibility to ensure that the Title V permit at issue fully complies with the Clean Air Act and to protect overburdened communities near the MCA site.

CONCLUSION

For the foregoing reasons, and as explained in Petitioners' Comments attached hereto, the Proposed Title V Permit is deficient. EPA must object to the Proposed Title V Permit.

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[61] *See* Valero Houston Order, *supra,* at 9-10.

[62] *See, e.g., In the Matter of United States Steel Corp. – Granite City Works*, Order on Petition No. V-2011-2, at 4-6 (Dec. 3, 2012) (because of "potential environmental justice concerns" raised by the fact that "immediate area around the [] facility is home to a high density of low-income and minority populations and a concentration of industrial activity," "[f]ocused attention to the adequacy of monitoring and other compliance assurance provisions [was] warranted") (citing in part to Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Exec. Order 12898 (Feb. 11, 1994)), *available at* https://www.epa.gov/sites/default/files/2015-08/documents/uss_2nd_response2009.pdf; *In the Matter of ExxonMobil Fuels & Lubricant Company, Baton Rouge Refinery, Reforming Complex and Utilities Unit*, Order on Petition Nos. VI-2020-4, VI-2020-6, VI-2021-1, VI-2021-2, at 11-12 (March 18, 2022) [hereinafter ExxonMobil Baton Rouge Order] (acknowledging that the area surrounding the refinery is home to a high density of low-income and minority populations and a concentration of industrial activity and noting that EPA had given "focused attention to the adequacy of monitoring (as well as other concerns raised by the Petitioners)"), *available at* https://www.epa.gov/system/files/documents/2022-04/exxonmobil-baton-rouge-order_3-18-22.pdf; Valero Houston Order, *supra,* at 9-11 (same); *see also* EPA, EJ 2020, https://www.epa.gov/environmentaljustice/ej-2020-action-agenda-epas-environmental-justice-strategy; EPA, *Plan EJ 2014, Considering Environmental Justice in Permitting* (2014), *available at* https://nepis.epa.gov/Exe/ZyPDF.cgi/P100ETRR.PDF?Dockey=P100ETRR.PDF.

Respectfully submitted this 9th day of September 2024, on behalf of Petitioners RISE St. James Louisiana, Healthy Gulf, Louisiana Bucket Brigade, Sierra Club, and Earthjustice,

/s/ Adam Kron
Adam Kron
Earthjustice
1001 G St. NW Suite 1000
Washington, D.C. 20001
(202) 667-4500
akron@earthjustice.org

/s/ Kathleen Riley
Kathleen Riley
Earthjustice
1001 G St. NW Suite 1000
Washington, D.C. 20001
(202) 667-4500
kriley@earthjustice.org

cc: Bryan Johnston, Administrator
Dan Nguyen
Louisiana Department of Environmental Quality
Air Permits Division
602 North 5th St.
Baton Rouge, LA 70802
bryan.johnston@la.gov
dan.nguyen@la.gov

Cynthia Kaleri
Air Permitting Section Chief
EPA Region 6
1201 Elm Street, Suite 500
Mail Code: ARPE
Dallas, TX 75270
kaleri.cynthia@epa.gov

Brad Toups
Louisiana Coordinator
EPA Region 6
1201 Elm Street, Suite 500
Mail Code: ARPE
Dallas, TX 75270
toups.brad@epa.gov

Hootan Hidaji
Mitsubishi Chemical America, Inc
6070 Poplar Avenue, Suite 600
Memphis, TN 38119
mca.airpermit@m-chem.com

LIST OF EXHIBITS

Exhibit No.	Title
1	RISE St. James Louisiana et al., Comments on Mitsubishi Geismar Site – Proposed Initial Part 70 (Title V) Air Operating Permit; Prevention of Significant Deterioration Permit); and Environmental Assessment Statement (Feb. 5, 2024)