



ENVIRONMENTAL LAW & POLICY CENTER

February 26, 2024

BY EMAIL ONLY

Doug Logan
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
E-mail: dalogan@idem.IN.gov

**Re: Comments on Proposed Part 70 Operating Permit Renewal for
BP Products North America Inc. - Whiting Business Unit in Lake County
2815 Indianapolis Blvd, Whiting, Lake County
Permit Renewal No.: T089-41271-00453**

To Indiana Department of Environmental Management:

The Environmental Law & Policy Center (“ELPC”), on behalf of itself and its members, along with the Abrams Environmental Law Clinic, Conservation Law Center, East Chicago Calumet Coalition - Community Advisory Group, Environmental Integrity Project, Faith in Place, Gary Advocates for Responsible Development, Hoosier Environmental Council, Just Transition Northwest Indiana, National Parks Conservation Association, Northern Lake County Environmental Partnership, Save the Dunes, (together, “Commenters”), respectfully submit these comments to the Indiana Department of Environmental Management (“IDEM” or “Agency”) on IDEM’s proposal to renew the Part 70 Operating Permit for BP Products North America Inc. - Whiting Business Unit (“BP” and “BP Permit”) for five years.¹

The BP refinery is one of the largest stationary sources of air pollution in Lake County and has a long history of poor compliance, including three serious incidents already in 2024 (discussed in detail below). While Commenters do not oppose renewal of a Part 70 Permit for BP, renewal on largely the same terms as the current permit will fail to assure compliance with the Clean Air Act and further endanger public health. Instead, Commenters recommend that Permit Renewal No. T089-41271-00453 be amended to: (1) advance environmental justice; (2) assure continuous compliance with permit limits by (i) requiring adequate testing, monitoring and reporting; (ii) specifying underlying authority for all terms and conditions; (iii) incorporating all necessary compliance documentation into the permit; (iv) requiring fence line monitoring; and (3) require a compliance schedule to remedy ongoing violations.

¹ IDEM published this draft permit renewal on December 8, 2023 for BP’s Part 70 Operating Permit that was effective on January 1, 2015 (and therefore was due to expire on January 1, 2020).

Commenters are public interest environmental advocacy and community organizations working to protect the environment and public health. This work includes a focus on industrial sources of pollution affecting the health and welfare of residents along Lake Michigan’s southern shoreline in Northwest Indiana.

BACKGROUND ON PERMITTED FACILITY

The BP Whiting oil refinery has operated since 1889 and is the largest in the Midwest and BP’s largest anywhere in the world. It processes up to 440,000 barrels of crude oil every day, producing 10 million gallons of gasoline, 4 million gallons of diesel, and 2 million gallons of jet fuel a day, as well as 7% of all asphalt in the U.S. Despite this, BP claims to be striving for net zero emissions, citing such performance measures as 41% and 15% reductions in absolute emissions in operations and production and championing their employee health and well-being campaign.² Specifically, BP claims to “monitor our air emissions and where possible, put measures in place to reduce the potential impact of our operational activities on local communities and the environment.”³

In reality, however, BP Whiting has been emitting millions of tons of harmful air pollutants across Northwest Indiana for the last 125 years while continuing to invest in and promote fossil fuels.⁴ In 2022 alone, BP reported the following facility-wide emissions:⁵

Facility Emissions Overview		
Pollutant	Pollutant Description	Emissions (Tons)
NH3	Ammonia	78.75
CO	Carbon Monoxide	477.36
7439921	Lead	0.0387
NOX	Nitrogen Oxides	1172.31
PM-CON	Primary PM Condensable Only (All Less Than 1 Micron)	. 228.06
PM10-FIL	Primary PM10, Filterable Portion Only	168.3
PM25-FIL	Primary PM2.5, Filterable Portion Only	159.71
S02	Sulfur Dioxide	318.72
VOC	Volatile Organic Compounds	488.37

² BP Sustainability Report 2022, *Reimagining energy for people and our planet*, pp. 19, 44, and available at <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/sustainability/group-reports/bp-sustainability-report-2022.pdf> (last accessed January 26, 2024).

³ *Id.* at 13.

⁴ See Rebecca Speare-Cole, *Shell and BP among oil firms accused of greenwashing over renewable energy*, Independent (August 23, 2023), <https://www.independent.co.uk/climate-change/news/shell-bp-oil-greenwashing-greenpeace-climate-b2397689.html>.

⁵ Table from 2022 Air Emission Inventory Statement for BP Whiting Business Unit, dated June 30, 2023, p. 1, available at IDEM Virtual File Cabinet.

While some of these emissions may be calculated from continuous emission monitoring systems, many of them are estimated using 5-year periodic stack tests, or engineering judgement, which means that even these numbers may be under-reported. Additionally, to no small degree, these emissions represent deviations from and violations of the facility's operating permit as well as a decade-long consent decree. *See e.g.*, Fourth Quarter 2023 – Quarterly Title V Deviation and CAM Report dated January 30, 2024; VOC Leak Monitoring Report – Fourth Quarter 2023 dated January 30, 2024; Enforcement Action/Referral to USEPA, Region 5 dated January 2, 2024.

Recent equipment failures resulted in 69 lbs of leaked volatile organic compounds (VOCs) (January 18, 2024), as well as 6,000 gallons of spilled dirty gas oil and 500 lbs each of hydrogen sulfide (H₂S) and benzene releases (January 23, 2024). Failures also include a facility-wide power outage that caused unknown amounts of sulfur dioxide (SO₂), nitrogen oxides (NO_x), and H₂S emissions from flares as well as unknown emissions from other sources (February 1, 2024).⁶ The power outage resulted in the emergency shutdown of the facility, an evacuation of all non-essential personnel, and the shutdown of nearby roads and businesses. Three weeks later, the refinery continues flaring emissions into the surrounding communities as BP works toward a phased restart of the refinery. This shutdown came only eight months after the last major power outage at the facility, on June 25, 2023, which was reported to have emitted some **700,000 lbs of SO₂, and 4,000 lbs of H₂S.**⁷

IMPROVEMENTS REQUIRED FOR BP PERMIT

The proposed BP Permit is a highly technical, scientific document that is 2353 pages long. It describes an immense 125-year-old facility with at least 39 categories of emission units. While IDEM provided notice as required by 326 IAC 2-1.1-6, this document's overall length and complexity, even with an extended timeframe for comment, did not allow enough opportunity to identify and enumerate all its deficiencies. The deficiencies highlighted below are merely representative; in particular, there are far more examples of the failures described in parts I-III of Comment 2 than those we describe.

In addition to fixing these permit deficiencies, IDEM should ensure the entire community is engaged and has the opportunity to participate with adequate public notice, meetings, and hearings.⁸

⁶ *See* Indiana Department of Environmental Management, Part 70 Operating Permit Emergency Occurrence Report dated February 5, 2024, available at IDEM Virtual File Cabinet, https://ecm.idem.in.gov/cs/idcplg?IdcService=GET_FILE&dID=83594911&dDocName=83598955&Rendition=web&allowInterrupt=1&noSaveAs=1.

⁷ *See* Indiana Department of Environmental Management, Part 70 Operating Permit Emergency Occurrence Report dated June 27, 2023, available at https://ecm.idem.in.gov/cs/idcplg?IdcService=GET_FILE&dID=83491642&dDocName=83495647&Rendition=web&allowInterrupt=1&noSaveAs=1.

⁸ ELPC commends IDEM for their response to public concern over these facilities and providing for a public meeting. While IDEM satisfied the requirements of public notice under 326 IAC 2-1.1-6, in light of the complexity of the Permit, IDEM still fails to give the affected community a fair chance to fully respond.

Comment 1: Advance Environmental Justice

Renewal of the BP Permit, as it is currently written, raises numerous environmental justice (EJ) concerns that must be addressed before it is approved. According to U.S. EPA’s “EJ in Air Permitting Memorandum” and “Principles for Addressing Environmental Justice Concerns in Air Permitting,” permitting authorities should conduct an environmental justice analysis when a permitting action may result in “disproportionately high and adverse human health or environmental effects” on people of color.⁹

That is certainly the case with the BP Permit. The BP Whiting facility is in the City of Whiting, which has more than 4,500 residents, 55% of whom are people of color, and 49% of whom are low-income. An analysis of the U.S. EPA’s EJSscreen tool shows that people of color comprise 80% of the population within a 5-mile radius of the BP facility. The area holds some of the highest environmental justice index levels in Indiana and the United States, with 10 out of 13 index levels exceeding the 90th percentile for state and nation. Those indexes include particulate matter, ozone pollution, toxic releases to air, superfund proximity, and hazardous waste proximity.

Consequently, IDEM should conduct an environmental justice analysis consistent with Title VI of the Civil Rights Act of 1964 (Title VI) and U.S. EPA’s “Principles for Addressing Environmental Justice Concerns in Air Permitting.” The analysis should be of the appropriate scope to inform residents of the basis for and impact of IDEM’s permitting decision.¹⁰ The analysis should include input from the affected community to identify their concerns, and evaluate existing environmental data, the facility’s compliance record, and demographic and public health data about the community. The analysis should consider the degree to which the permitting decision would have disproportionately high and adverse effects on people of color and vulnerable populations and explore opportunities to mitigate those effects. Lastly, the analysis should include the cumulative impact of the permitting decision when added to other regulated and non-regulated sources of pollution in the surrounding community.¹¹

IDEM had previously suggested that it would include what it calls an environmental justice analysis when it issues the final permit.¹² As just shown, a key part of the EJ analysis is allowing the affected community to participate in and understand the impacts of the permitting decision; releasing something after the permit is final prevents IDEM from fulfilling those purposes. Now, however, IDEM has backtracked on even this paltry measure. During the public meeting for this permit on February 22, 2024, IDEM unequivocally stated that it would not be

⁹ EJ Air Permitting Principles ¶ 6, available at <https://www.epa.gov/system/files/documents/2022-12/Attachment%20-%20EJ%20in%20Air%20Permitting%20Principles%20.pdf>.

¹⁰ *Id.* at ¶ 4, available at <https://www.epa.gov/system/files/documents/2022-12/Attachment%20-%20EJ%20in%20Air%20Permitting%20Principles%20.pdf>.

¹¹ *See id.* at ¶ 6, available at <https://www.epa.gov/system/files/documents/2022-12/Attachment%20-%20EJ%20in%20Air%20Permitting%20Principles%20.pdf>.

¹² On January 10, 2024, during the public meeting for the Cleveland Cliffs – Indiana Harbor Part 70 Air Permit renewal, IDEM stated that while an EJ analysis was not completed in time for the draft permit, it would be completed and included in the final permit and for permits going forward. Per IDEM’s remarks on February 22, 2024, at the IDEM public meeting for the BP Permit, this is not the case.

performing an EJ analysis and would not include such an analysis into the Permit until mandated to do so by U.S. EPA. Instead of performing a full EJ analysis, an IDEM representative claimed to have pulled up the EJScreen tool on their computer during the Permit review process. This is not enough, and the people of Northwest Indiana deserve better from State agencies.

Finally, ELPC is concerned with the lack of attention IDEM has shown Spanish-speaking residents near the BP facility. An EJScreen analysis shows that 40% of households in a 5-mile radius around the BP facility speak Spanish at home, while 7% of homes in that radius are considered Limited English households. Despite these factors, IDEM did not release any of the permitting materials in Spanish or provide a Spanish translator at the meeting. In fact, one Spanish-speaking woman at the February 22nd meeting relied on the translator services of another concerned citizen in the absence of a translator provided by IDEM. In the future we ask that permitting materials be translated into Spanish, and that an interpreter be made available during public meetings due to the prevalence of Spanish-speaking residents in Northwest Indiana region. Such accommodation would help with the meaningful involvement of all people in the permitting process and ensure compliance with the language access requirements of Title VI.¹³

Comment 2: Assure Continuous Compliance

The Clean Air Act requires that permits subject to Title V regulations meet the “minimum elements required by the Act for State operating permit programs” including assuring “compliance by the source with all applicable requirements.” 40 CFR § 70.1(a) and (b). The BP Permit as currently written, however, fails to assure compliance across numerous (if not all) emissions units for a variety of reasons. IDEM should amend the BP Permit to assure continuous compliance with emissions limits by (i) requiring adequate testing, monitoring, and reporting; (ii) specifying underlying authority for all terms and conditions; (iii) incorporating all necessary compliance documentation into the permit; and (iv) requiring fence-line monitoring.

I. The BP Permit does not include adequate testing, monitoring, or reporting requirements to assure continuous compliance.

All sources are required to “have a permit to operate that assures compliance by the source with all applicable requirements.” 40 CFR § 70.1(b). Specifically, each permit must include “[e]mission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements and any additional requirement.” 326 IAC 2-7-5(1); *see also* 42 U.S.C. § 7661c(a). To that end, Title V operating permits must contain adequate testing, monitoring, reporting, recordkeeping, and other requirements to assure compliance with permit terms and conditions. 40 CFR § 70.6(c)(1); 42 U.S.C. § 7661c(c); 326 IAC 2-7-5(3). This includes “periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.” 40 CFR § 70.6(a)(3)(i)(B); *see also* 326 IAC 2-7-5(3)(A)(ii). “Such monitoring requirements shall assure use of terms, test methods, units, averaging periods, and other

statistical conventions consistent with the applicable requirement.” 40 CFR § 70.6(a)(3)(i)(B). In addition, “[t]he rationale for the selected monitoring requirements must be clear and documented in the permit record” (40 CFR § 70.7(a)(5)) and the permittee must retain “records of all required monitoring data and support information for a period of at least 5 years.” 40 CFR § 70.6(a)(3)(ii)(B); *see also* 326 IAC 2-7-5(3)(B)(ii).

A. The BP Permit does not include adequate testing, monitoring, or reporting requirements for PM or PM10 for numerous emissions units.

i. Section D.1, No. 11 Pipe Still

Conditions D.1.1 and D.1.2(b)(2) set the emissions limits for PM and PM10 for each of the five process heaters in this emissions unit. IDEM fails to provide any other terms or conditions detailing how these emissions will be monitored, how they will be recorded, and how or when they will be reported. Just stating a limit or asserting that the permittee will comply with it is not enough. The BP Permit must include “monitoring sufficient to yield reliable data from the relevant time period” for each emissions limit (e.g., hourly, daily, etc.). 40 CFR § 70.6(a)(3)(i)(B); 326 IAC 2-7-5(3). Additionally, the Permit needs “terms, test methods, units, averaging periods, and other statistical conventions consistent with [each] applicable requirement.” 40 CFR § 70.6(a)(3)(i)(B).

ii. Section D.2, Coker 2 and Coke Handling System

Conditions D.2.1 and D.2.2(c) set the PM and PM10 limits for heaters F-201, F-202, F-203 and TK-6254. The Permit terms merely state that “the emissions of PM shall not exceed” the limit or that “TK-6254 shall comply” with the limit. The only other mentions of PM or PM10 in this section are under Condition D.2.8(c), which applies to fugitive emissions, not stack emissions, and the performance testing requirements in Condition D.2.10 (discussed below). As just explained, stating that a permittee will comply with a limit or that a piece of equipment will not exceed a limit does not make it so. IDEM needs to assure compliance with these limitations by providing permit conditions that include adequate testing, monitoring, reporting, recordkeeping, and other requirements to assure compliance. *See* 40 CFR § 70.6(c)(1); 42 U.S.C. § 7661c(c); 326 IAC 2-7-5(3).

iii. Numerous Other Emissions Units

The Permit repeats this failure to include adequate testing, monitoring, or reporting requirements for PM and PM10 emissions with respect to numerous other emissions units, including D.3, D.4 (which has heaters, doesn’t even mention PM emission limitations, but DOES list PM and PM10 testing as part of their performance testing requirements), D.9, D.10, and D.11. This list should be considered representative, not exhaustive. Because the Permit pervasively fails to require testing, monitoring, or reporting, it cannot assure continuous compliance with the PM and PM10 emission limits as required by the Clean Air Act and applicable regulations. 42 U.S.C. § 7401 et seq.; 42 U.S.C. § 7661c(c); 326 IAC 2-7-5(1).

- iv. Performance testing requirements of once every 5 years is not sufficient to assure continuous compliance.

Condition D.1.12(c), for the No. 11 Pipe Still emissions unit, states that “[i]n order to demonstrate compliance with paragraph D.1.2(b)(2), the Permittee shall perform PM, PM10, CO, and VOC testing of [the heaters] at least once every five (5) years from the date of the most recent valid compliance demonstration.” The Permit uses the same general phrasing to describe performance testing for multiple other emissions units, including, at a minimum, D.2, D.3, D.4, D.9, D.10, and D.11. In these circumstances, however, such infrequent performance testing is not sufficient to assure compliance with permit terms as required.

To begin with, BP is not fully complying with the every-five-year testing requirements. According to the Technical Support Document,¹⁴ performance tests for two of the five heaters utilized in the No. 11 Pipe Still are more than five years old.¹⁵

More fundamentally, any stack test, let alone one taken only once every five years, is merely a “snapshot of a unit’s performance, often taken under ideal circumstances, and does not reflect variations in performance over time or account for changes in performance across different operating scenarios.” *In the Matter of Oak Grove Management Company, Oak Grove Steam Electric Station*, Order on Petition No. VI-2017-12 at 24 (October 15, 2021). This weakness is particularly glaring because the PM limits for this emissions unit does not specify a timeframe at all – it is calculated by lbs/MMBtu without reference to any time period. Therefore, a once-every-five-years stack test cannot produce “reliable data for the relevant time period” and cannot assure ongoing compliance with such limits. *See* 40 C.F.R § 70.6(a)(3)(i)(B).

While U.S. EPA has deemed periodic testing adequate “if it is part of a multi-pronged approach for assuring compliance with emissions standards,”¹⁶ there is no “multi-pronged” approach to assuring compliance in this permit. In circumstances like these, U.S. EPA has found “that requirements for **periodic stack tests alone are insufficient to assure compliance**, and has directed permitting authorities to consider a multi-pronged monitoring approach of periodic stack testing accompanied by other clearly identified permit terms such as parametric monitoring.” *In the Matter of Cove Point LNG, LP*, Order on Petition No. III-2022-14 at 15 (March 8, 2023) (emphasis added).¹⁷

IDEM’s failure to include testing conditions relevant to the time period of the emissions limitation, any supplemental monitoring, and any rationale for the selected monitoring requirements, leaves this permit deficient and unable to assure continuous compliance.

¹⁴ BP Permit, Technical Support Document (TSD) for a Part 70 Operating Permit Renewal, pp. 187-88 (pp. 1830-31 for the entire permit pdf).

¹⁵ A quick glance of the Summary of Testing Requirements chart shows that there are at least a dozen emission unit sources out of compliance with their testing frequency requirements. *See id.* at pp. 187-94 (pp.1830-37 for the entire permit pdf).

¹⁶ *In the Matter of Oak Grove Management Company, Oak Grove Steam Electric Station*, Order on Petition No. VI-2017-12 at 26 (October 15, 2021).

¹⁷ *See also, In the Matter of Oak Grove Management Company, Oak Grove Steam Electric Station*, Order on Petition No. VI-2017-12 at 25-26 (October 15, 2021); *In the Matter of Owens-Brockway Glass Container, Inc.*, Order on Petition No. X-2020-2 at 14-15 (May 10, 2021).

B. The BP Permit does not include adequate testing, monitoring, or reporting requirements for CO for numerous emissions units.

Similar to Comment 2.A. for PM emissions, the BP Permit fails to assure compliance with CO emissions limitations. The Permit supplies emissions limits (either in lbs/MMBtu or tons/twelve consecutive month period, depending on the emissions unit) for CO but does not include any monitoring except for a once-every-five-year stack test. For all the reasons stated above (*see* Comment 2.I.A.iv), this is too infrequent to provide a representative picture of the emission unit's performance, as such a test can neither produce relevant time-period data nor can it assure ongoing compliance. As above, IDEM fails to provide any other terms or conditions detailing how these emissions will be monitored, how they will be recorded, and how or when they will be reported across numerous emissions units. *See e.g.* Condition D.1, D.2, D.3, D.4, D.9, D.10, and D.11 at the very least, and likely more. Once again, asserting a limit is not enough to assure compliance.

C. The BP Permit does not include adequate testing, monitoring, or reporting requirements for NOx for numerous emissions units.

i. Section D.1, No. 11 Pipe Still

Conditions D.1.10(b) and (c) provide the NOx compliance determination requirements for this emissions unit. However, Condition D.1.10(b) is missing a term. It provides that the "NOx emissions limit [for heaters H-1X and H-200] shall be calculated using 40 CFR 60, Appendix A, Method 19 and *either* the 12-month rolling average NOx concentration as determined by CEMS (after the installation of the CEMS required by paragraph D.1.13(b))." (emphasis added). The term fails to provide an alternative option and is therefore unclear as to the monitoring required to determine compliance. Additionally, the wording creates ambiguity about whether CEMS is installed on these heaters, even though paragraph D.1.13(b) states the 2012 Consent Decree required their installation by December 31, 2013. Additionally, Condition D.1.16(e)(3) only mentions recording "NOx emissions, as measured by the CEMS, for heater H-1X," even though H-200 is also required to have CEMS. All other recordings for NOx are the combined emissions.¹⁸ IDEM needs to clarify whether CEMS is installed and operating on H-200 and therefore which monitoring method is required to assure compliance for that unit.

The reporting requirements for NOx are similarly unclear. Condition D.1.17(e) requires reporting for the combined NOx emissions while Condition D.1.17(f) only requires submission of reports for excess NOx at heaters H-1X and H-200.¹⁹ Regular and excess reporting should be required for both the combined emissions limits AND the individual limits, regardless of whether

¹⁸ Condition D.1.2(b)(1) sets combined NOx emissions limits for the five process heaters in this emissions unit. That is, heaters H-1X, H-2A, and H-3 have one combined emissions limit while heaters H-200 and H-300 have one combined emissions limit. Out of these five heaters, only H-1X and H-200 have continuous emissions monitoring systems (CEMS) for NOx and have individual NOx emissions limits at D.1.9(b) and D.1.2(a), respectively.

¹⁹ H-1X, H-200, and H-300 are those noted as having ultra-low NOx burners, with H-300 approved for this modification in 2021. BP Permit, Condition D.1(a)(1), p. 129 (p. 131 of entire draft permit pdf). The Technical Support Document provides an install date of November, 2023.

the heaters have ultra-low burners. IDEM provides no rationale for this gap in the reporting requirement for NOx.

- ii. Performance testing once every 5 years is not sufficient to assure continuous compliance with NOx emission limits

Condition D.1.12(b), for the No. 11 Pipe Still emission unit, states that “to demonstrate compliance with paragraph D.1.2(b)(1), the Permittee shall perform NOx testing of Heaters H-2A and H-3 at least once every five (5) years from the date of the most recent valid compliance demonstration.”²⁰ For the reasons stated above (*see* Comment 2.I.A.iv), this is too infrequent to provide a representative picture of the emission unit’s performance. That is particularly true because the applicable limit is expressed as tons per twelve consecutive month period, but only some heaters are equipped with CEMS capable of measuring emissions on that basis. Supplemental monitoring is required to assure compliance. IDEM’s failure to include testing conditions relevant to the emissions limitation, any supplemental monitoring, and any rationale for the selected monitoring requirements, leaves the Permit deficient and unable to assure continuous compliance with NOx limits.

D. The BP Permit does not include adequate testing, monitoring, or reporting requirements for VOC emissions for numerous emissions units.

- i. Section D.1, No. 11 Pipe Still

Condition D.1.7(a)(1) states that “the Permittee shall not emit any noncondensable volatile organic compounds from the condensers, hot wells or accumulators of any vacuum producing systems at a petroleum refinery.” The Permit fails, however, to include any terms or conditions describing how noncondensable VOCs will be controlled, monitored, tested, recorded, and/or reported as required by the Clean Air Act and implementing regulations discussed above.

Condition D.1(a)(10) and (11) list interim and permanent wastewater stripper systems, respectively, both of which were approved for construction in 2023. The Permit does not refer to the permanent wastewater stripper system again, leaving it unclear what role it is to perform once constructed, whether such construction has been completed, or the timeline for its completion.²¹ In any case, the Permit has no testing, monitoring, recording, or reporting requirements for it. Instead, the emissions limits for VOC and H₂S are contained in Condition D.1.2(e) and D.1.3 and cite to the interim wastewater stripper system. Indeed, all testing, monitoring, recording, and reporting requirements in Conditions D.1.10(d) and (e), D.1.11, D.1.12(d), D.1.16(h), and D.1.17(h) refer to the interim wastewater stripper.

²⁰ The origin of the alternative NOx emission factors is also not provided nor explained. *See* BP Permit, Condition D.1.10(c), p. 135-36 (p. 137-38 of the entire draft permit pdf).

²¹ *See* paragraph V.O.49 of the Consent Decree entered in *United States of America, et al. v. BP Products North America Inc.*, Case No. 2:23-cv-00166 (N.D. Ind. May 17, 2023).

The interim wastewater stripper was required to be installed by January 31, 2024.²² However, in an email to IDEM dated January 29, 2024, BP invoked Force Majeure to request an extension on construction until August 31, 2024.²³ The conditions listed above, therefore, assume equipment that has not yet been constructed or installed. Permit terms relying on non-existent equipment cannot possibly assure compliance with emissions limitations. The BP Permit must include terms that show how BP will operate now to control, test, monitor, record, and report VOC emissions.

ii. Section D.27, VOL Storage

Condition D.27 covers storage facilities and tanks for both petroleum and volatile organic liquids. There are several discrepancies in the descriptions of the covered tanks.²⁴ In addition, D.27.3 states that it is “including but not limited to the petroleum storage vessels listed below.” BP and IDEM should be able to accurately identify and describe every tank on the facility, including what it holds, its storage capacity, and its location. If the Permit fails to completely and properly identify tanks at the refinery, it cannot require adequate testing, monitoring, or reporting of what is in the tank and what VOCs the tank may be emitting. This cannot assure compliance under 40 CFR § 70.6(c)(1), 42 U.S.C. § 7661c(c), or 326 IAC 2-7-5(1).

Condition D.27.7 covers monitoring for VOCs from the storage facilities and tanks and states that “the Permittee shall monitor for leaks of VOC according to the LDAR plan submitted by the Permittee” pursuant to 326 IAC 8-4-8. This regulation requires BP to “**develop** and conduct a monitoring program” and outlines multiple monitoring program requirements.²⁵ As discussed in Comment 2.III.A below, however, because the leak detection and repair (“LDAR”) plan is not included in the Permit, there is no way for the public or regulators to gauge its sufficiency. This omission also violates 326 IAC 2-7-5(15)(B), which requires permits to include “all reasonable information” to evaluate compliance.

The record-keeping and reporting requirements under D.27.9 are likewise inadequate. Condition D.27.9(a) states that “the Permittee shall comply with equipment leak record keeping requirements specified in the LDAR plan.” IDEM’s failure to include the LDAR plan in the Permit makes this requirement inadequate. Similarly, Condition D.27.9(b) states that the permittee needs to maintain records on the “results of inspections performed on storage vessels” but the Permit fails to describe the frequency or the scope of storage vessel inspections.

iii. Numerous Other Emissions Units

²² See paragraph V.O.48.j of the Consent Decree entered in *United States of America, et al. v. BP Products North America Inc.*, Case No. 2:23-cv-00166 (N.D. Ind. Aug. 9, 2023).

²³ Letter from Donnie W. Brown, Vice President - Refining, BP Products North America Inc. to Constantinos Loukeris, US EPA, dated January 29, 2024.

²⁴ For example, Condition D.27.3 lists tank 3484 which is not in the description list; Condition D.27.4(b) is missing tanks 3506 and 3606; Condition D.27.4(c) should list tank 3571 not 3570 for the marine dock facility and oil movements tank 3968 is not on the permit list.

²⁵ On February 22, 2024 at the IDEM public meeting to discuss the BP Permit, IDEM representatives stated several times that an “LDAR isn’t something BP develops, it’s something BP follows.” Indiana administrative code refutes that statement.

The operating conditions for every emission unit invariably rely on provisions in the LDAR to monitor for VOCs. As previously discussed, unless IDEM incorporates the LDAR into the permit, neither the public nor U.S. EPA can evaluate whether the permit contains adequate testing, monitoring, reporting, recordkeeping, and other requirements to assure compliance with the permit terms and conditions, particularly VOC limitations. 40 CFR § 70.6(c)(1); 42 U.S.C. § 7661c(c). The permit thus fails to “assure compliance by the source with all applicable requirements” as required by law. 40 CFR § 70.1(b); *see also* 326 IAC 2-7-5(1).

Given the BP Permit’s broad failure to require sufficient monitoring (including, in many instances, a failure to identify any monitoring requirements at all), IDEM can and should require the addition of Continuous Emission Monitoring Systems (“CEMS”) on all burners and heat processing units that do not currently have those devices. While CEMS may not be “required if alternative methods are available that provide sufficiently reliable and timely information for determining compliance,”²⁶ the “rationale for the selected monitoring requirements must be clear and documented in the permit record.” 40 CFR § 70.7(a)(5). Additionally, “EPA has previously found that periodic stack testing alone is insufficient to assure compliance with short-term emission limits.” *In the Matter of Covanta Delaware Valley LP, Delaware Valley Resource Recovery*, Order on Petition No. III-2023-10 at 12 (November 2, 2023).²⁷

As shown above, the BP Permit pervasively fails to “sets forth” any monitoring requirements that “assure compliance” for multiple pollutants and emission units. 42 U.S.C. § 7661c(c); 40 CFR § 70.6(c)(1); 326 IAC 2-7-5(3). In cases like this, “[w]here an underlying applicable requirement...does not contain any monitoring, or does not contain sufficient periodic monitoring, additional monitoring *must* be added to the title V permit.” *In the Matter of Oak Grove Management Company, Oak Grove Steam Electric Station*, Order on Petition No. VI-2017-12 at 25 (October 15, 2021) citing *Sierra Club v. EPA*, 536 F.3d 673 (D.C. Cir. 2008) (granting Petitioners’ request for an objection where the permit only required annual stack testing to demonstrate compliance with lbs/MMBtu, lbs/hour, and twelve-month ton/year limits).

In short, the BP Permit is noncompliant with the Clean Air Act because it fails “to specify any particular monitoring or recordkeeping requirement [for the above pollutants and/or emission units], neither the public nor EPA can ascertain...whether this methodology is sufficient to assure compliance with all applicable requirements...effectively prevent[ing] both the public and EPA from exercising the participatory and oversight roles provided by the CAA.” *Id.* at 17.

II. The BP Permit does not adequately identify the underlying authority for many terms and conditions.

²⁶ 42 U.S.C. § 7661c(b)

²⁷ *See also e.g., In the Matter of Oak Grove Management Company, Oak Grove Steam Electric Station*, Order on Petition No. VI-2017-12 at 25-26 (October 15, 2021); *In the Matter of Owens-Brockway Glass Container, Inc.*, Order on Petition No. X-2020-2 at 14-15 (May 10, 2021).

Clean Air Act regulations require IDEM to “provide a statement that sets forth the legal and factual basis for the draft permit conditions (including references to the applicable statutory or regulatory provisions).” 40 CFR § 70.7(a)(5). In addition, permits must “specify and reference the origin of and authority for each term or condition and identify any difference in form as compared to the applicable requirement upon which the term or condition is based.” 40 CFR § 70.6(a)(1)(i). *See also* 326 IAC 2-7-5(1)(A). This specificity is required to ensure inclusion of “enforceable emission limitations and standards...and other such conditions as are necessary to assure compliance with applicable requirements.” 42 U.S.C. § 7661c(a). *See also* 326 IAC 2-7-5(1); 326 IAC 2-7-5(15)(B).

A. IDEM fails to include a Statement of Basis with the BP Permit

As just noted, Title V permits must include “a statement that sets forth the legal and factual basis for the draft permit conditions (including references to the applicable statutory or regulatory provisions).” 40 CFR § 70.7(a)(5). This “statement” is a separate document from the permit that must “include a discussion of decision-making that went into the development of the Title V permit and to provide the permitting authority, the public, and the USEPA a record of the applicability and technical issues surrounding issuance of the permit.”²⁸ In addition to discussing monitoring and operational requirements, the statement of basis must identify all applicability and exemption determinations, and “include the rationale for such a determination and reference any supporting materials relied upon in the determination.”²⁹ Finally, it should include attainment status, permitting history, and “[c]ompliance history including inspections, any violations noted, a listing of consent decrees into which the permittee has entered and corrective action(s) taken to address noncompliance.”³⁰

Multiple other regulatory provisions recognize IDEM's obligation to prepare a statement of basis and to make it available to the public, along with other documents relevant to the permitting decision. These include 40 CFR § 70.7(h)(2), which requires public access to “copies of the permit draft, the statement required by § 70.7(a)(5) (sometimes referred to as the ‘statement of basis’) for the draft permit, the application, all relevant supporting materials...and all other materials available to the permitting authority...that are relevant to the permit decision.” *See also e.g.*, 40 CFR § 70.4(b)(3)(viii); 326 IAC 2-7-17(c)(1)(C)(iv).

It appears that IDEM has failed to fulfil its statutory duty under these sections. No statement of basis is included in the documents attached to the Permit. While IDEM provides a link to its Virtual File Cabinet for a copy of the permit application and preliminary findings, Commenters note that they could find only the draft permit (the “preliminary findings”), but not the statement of basis or any other relevant supporting materials on the Virtual File Cabinet. Additionally, when Commenters asked IDEM for a copy of the leak detection and repair plan, they were told to submit a public records request. However, as IDEM has previously noted,

²⁸ Letter, dated December 20, 2001, from U.S. EPA Region V to Ohio EPA, p. 1 providing guidelines on the content of an adequate statement of basis, available at: <https://www.epa.gov/sites/default/files/2015-08/documents/sbguide.pdf>. *See also In the Matter of Midwest Generation, LCC Waukegan Generating Station, Order on Petition Number V-2004-5* (September 22, 2005).

²⁹ Letter, at 2.

³⁰ Letter, at 3.

“public records requests are distinct from the permitting process.” *In the Matter of Riverview Energy Corp.*, Order on Petition No. V-2019-10 at 14 (March 26, 2020). IDEM should make the statement of basis, and other materials relevant to the permit decision available to the public with an opportunity to review and comment.

B. The BP Permit does not adequately identify the underlying authority for terms and conditions in Section D.1 Emissions Unit Operation Conditions – No. 11 Pipe Still

Numerous terms and conditions in Section D.1 fail to adequately set forth “the legal and factual basis for their inclusion” (40 CFR § 70.7(a)(5)) or the specific “origin and authority” (40 CFR § 70.6(a)(1)(i)) for including them in the permit. Below are several examples.

Condition D.1.5 Standards of Performance for Petroleum Refineries cites to 326 IAC 12 and 40 CFR § 60, Subpart Ja in the heading. Condition D.1.5(a) states that heaters H-1X, H-2A, H-3, H-200, and H-300 are “subject to and shall comply with the applicable requirements of 40 CFR 60, subparts A and Ja and specified in Section F.3 for SO₂ emissions for fuel gas and combustion devices.” Condition D.1.5(b) states that H-200 is “subject to and shall comply with the applicable requirements of 40 CFR 60, subparts A and Ja for NO_x emissions for process heaters by the date specified in 40 CFR 60, subpart Ja.”

The authority cited in Condition D.1.5 fails to support its terms. Indiana Administrative Code 326 IAC 12 is a general provision stating that “stationary source[s] subject to this article shall comply with 40 CFR 60.” The cited federal regulations (40 CFR § 60, subpart A and Ja), by contrast, are massive. 40 CFR § 60 Subpart A is the General Provisions of the Standards of Performance for New Stationary Sources while Subpart Ja is the Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007. These regulations are 121 and 59 pages long, respectively, covering numerous standards, some of which do not appear to apply to these heaters, particularly in regard to SO₂ and NO_x emissions.

Citing to entire CFR sections is confusing and insufficient. IDEM must cite the specific origin and authority for permit conditions that apply to these heaters and their SO₂ and NO_x emissions and “identify any difference in form as compared to the applicable requirement” for these terms. 40 CFR § 70.6(a)(1)(i). *See also* 326 IAC 2-7-5(1)(A).

Condition D.1.6 Equipment Leaks of Volatile Organic Compounds (VOC) cites to 326 IAC 8-4-8, 326 IAC 12, and 40 CFR § 60, Subpart GGGa in the heading. In Condition D.1.6(b)(1), this condition states that “the Permittee shall comply with the requirements specified in Section F.9 - 40 CFR 60, subpart GGGa and Section F.9 - 40 CFR 60, subpart VVa for equipment leaks of VOC.” Section F.9.2 and Section F.9.3 of the Permit cite and incorporate applicable portions of subpart GGGa and VVa, which are attached to the Permit.³¹ These attachments include both the general provisions of GGGa and VVa as well as exceptions and alternative standards and equivalent means of emission limitation that an owner may elect to use with notification to IDEM. Section F.9.3(15) also references exceptions that may apply.

³¹ These provisions are incorporated into the Permit at attachments C.xii (starting at pdf p. 767) and C.ix (out of order starting at pdf p. 679), respectively.

The Permit, however, fails to state whether it applies any of these exceptions, alternative standards, or equivalent means of emission limitation. This failure violates requirements to identify the underlying authority and basis for permit terms. That is particularly true given that under 326 IAC 2-7-5(1)(D), “any Part 70 permit containing an alternative emission limit based on such an equivalency determination shall contain provisions to ensure that the emission limit has been demonstrated to be quantifiable, accountable, enforceable, and based on replicable procedures.”

Condition D.1.15 Compliance Monitoring Requirements cites to 40 CFR § 64 in the heading. However, neither of the terms included in the condition cite to 40 CFR § 64. Condition D.1.15(a) states that “the Permittee will comply the requirements of 40 CFR 60, Subpart Ja for monitoring emissions of H₂S and/or SO₂” and Condition D.1.15(b) states “the Permittee will comply the requirements of 40 CFR 61, Subpart FF for monitoring emissions of VOC.”

IDEM needs to clarify whether 40 CFR § 64 applies to this condition and, therefore, whether compliance assurance monitoring (CAM) applies to this unit. If CAM does apply to this unit, the Permit must include a CAM plan providing the indicators to be monitored, the performance criteria for the monitoring to satisfy, how it will be evaluated, and any special criteria for applicable continuous emission monitoring systems. 40 CFR § 64.3. Additionally, as with Condition D.1.6 above, IDEM needs to specify which sections of 40 CFR § 60, Subpart Ja and 40 CFR § 61, Subpart FF apply to each of these conditions – that is, they must identify the specific “origin and authority for each term or condition,” as well as details about any applicable exemptions or alternative standards. 326 IAC 2-7-5(1)(A).

C. The BP Permit does not adequately identify the underlying authority for terms and conditions in Section D.27 Emissions Unit Operation Conditions – VOL Storage

Condition D.27.1 Equipment Leaks of Volatile Organic Compounds (VOC) cites to 326 IAC 8-4-8, 326 IAC 12, and 40 CFR 60, Subpart GGGa in the heading. In Condition D.27.1(b)(1), this condition states that “the Permittee shall comply with the requirements specified in Section F.9 - 40 CFR 60, subpart GGGa and Condition F.9.3 - 40 CFR 60, subpart VVa for equipment leaks of VOC...”. This is the same vague permit term included in Condition D.1.6 and discussed above; to the extent IDEM is relying on 40 CFR 60, subpart GGGa and VVa, it needs to specify which, if any, of the allowable exceptions, alternative standards, and equivalent means of emissions limitations are being applied and provide necessary supporting details

D. The BP Permit does not adequately identify the underlying authority for terms and conditions in Section D.2 Emissions Unit Operation Conditions – Coker 2 and Coke Handling

Section D.2 illustrates another type of origin and authority deficiency found throughout this permit – typographical errors and inaccurate or confusing citations. For example, in Condition D.2.7(j) the date listed for SSM No. 089-42988-00453 is incorrect – it should be July 20, 2021, not December 3, 2012 (date of the Consent Decree). Additionally, another permit

provision (Appendix A – Proposed Changes to Permit, TSD paragraph (18)) states that D.2.7(j) was deleted. *See* pdf p. 1847. These errors make it difficult for the reader to identify the origin or authority of important permit terms. Similarly, D.2.7(j)(1) notes that to comply with the 2012 Consent decree, a type of analyzer “shall be installed” but fails to impose any deadline for doing so, even though it is now eleven years later, or provide the operating parameters for these analyzers.

Condition D.2.13(c) and (d) provides that the permittee must follow certain record keeping requirements to document compliance with D.2.5(a) and D.2.5(b), respectively, but there is no paragraph D.2.5(a) and (b). D.2.5 has no subsections as it is a one-sentence condition that requires “the Coker 2 coke handling system [to] comply with the requirements at Condition C.5 - Fugitive Particulate Matter Emissions.” Even simple typographical errors such as these seriously frustrate efforts to identify the origin and authority for these conditions or whether the Permit assures compliance with enforceable standards per the applicable requirements.

As demonstrated in the three sections above, the BP Permit is full of terms and conditions that fail to adequately identify the underlying “origin of and authority for each term and condition.” 326 IAC 2-7-5(1)(A). Furthermore, the Permit is unclear in numerous places about which federal requirements under 40 CFR § 60, 40 CFR § 61, or 40 CFR § 64 apply to various emission units at the facility. Only by specifically identifying the origin and authority of each permit term can the facility, regulators, and citizens determine whether the facility is compliant with those terms and conditions. Therefore, IDEM is required to ensure that each permit term and condition (including but not limited to the examples above) identify with adequate specificity the underlying origin and authority for those conditions.

III. The BP Permit fails to incorporate required documents.

The Permit acknowledges that Clean Air Act regulations require several additional documents to ensure compliance with emissions limitations and safe operation of the facility. These include the Leak Detection and Repair Plan, as well as a Preventive Maintenance Plan, an Emergency Reduction Plan, and a Risk Management Plan. As discussed below, however, none of these documents are included with the Permit or readily available for public review; the Permit does not even describe their contents.

That omission is a serious problem because these documents are necessary to comply with the two regulations discussed in Comment 2 above: 40 CFR § 70.6(a)(1) (requiring permits to include all “operational requirements and limitations that assure compliance with all applicable requirements”); and 40 CFR § 70.6(a)(1)(i) (requiring permits to “specify and reference the origin of and authority for each term or condition, and identify any difference in form as compared to the applicable requirement upon which the term or condition is based.”). While IDEM representatives argue that these documents are not part of the permit or subject to public notice, they have also acknowledged that these documents **could** be incorporated into the

permit.³² Consequently, IDEM should amend the Permit to incorporate these documents and give the public at least 60 days to review and comment on them before the Permit is finalized.³³

A. Leak Detection and Repair Plan

IDEM regulations require permits to include a Leak Detection and Repair (“LDAR”) Plan and establish guidelines for leak monitoring programs for petroleum refineries. 326 IAC 8-4-8. Refineries must follow these guidelines unless “(1) such guideline is not economically or technologically feasible as it applies to a particular source; or (2) the program proposed by such owner or operator will result in equivalent control of VOC emissions.” 326 IAC 8-4-8(b). Additionally, per the 2012 Consent Decree, BP was required to develop a written facility-wide LDAR program which must be reviewed annually, and updated as needed, no later than December 31 of each year.³⁴ The Permit acknowledges that BP must “control leaks of VOCs [for each emission unit] according to the Leak Detection and Repair (LDAR) Plan submitted by the Permittee.” Nonetheless, the Permit fails to include an LDAR Plan or describe the terms of any existing LDAR plan.

This failure is particularly serious because fugitive emissions and leaks of VOCs from tanks, pumps, ductwork, pipes, valves, connections, etc. are a significant source of VOCs for the facility. Fugitive VOC emissions from just the tanks was estimated (through “engineering judgement”) at 153.45 tons in 2022. In addition, BP reported 75 leaking components in the fourth quarter of 2023. Notably, the Q4 VOC Leak Monitoring Report states that it “is based on the regulatory leak rate of 10,000 ppm.” This report does not specify whether it also accounts for readings of 2000 parts per million (ppm), which is cited throughout the BP Permit as the leak rate “for pumps in heavy liquid service.”

Already in 2024, BP has had two separate leaks. These leaks on January 18th and January 23rd caused releases of VOCs including hydrogen sulfide (H₂S) and benzene, threatening the health and welfare of Whiting, East Chicago, and Hammond residents.³⁵ Hydrogen sulfide exposure irritates the eyes and lungs and can cause nausea, dizziness, headaches, irritability, insomnia, convulsions, and, in high concentrations, death.³⁶ Benzene exposure irritates the skin,

³² Comments made by IDEM representatives on February 22, 2024 at IDEM public meeting for BP Permit renewal.

³³ Per 326 IAC 2-1.1-6(a)(E), IDEM must allow “a period of *at least* thirty (30) calendar days opportunity for public comment.” (emphasis added) Due to the length and complexity of these Title V permits, IDEM should provide more than the minimum statutory requirement to ensure adequate opportunity for public participation.

³⁴ Consent Decree entered in *United States, et al. v. BP Products North America Inc.*, Civil No. 2:12-CV-00207 (N.D. Ind. Nov. 6, 2012). Note again that this contradicts statements made by IDEM representatives on February 22, 2024 at the IDEM public meeting for the BP Permit renewal that an LDAR is merely something the company follows rather than develops and updates itself.

³⁵ Commenters note that IDEM’s press release regarding the incidents is no longer available online.

³⁶ Agency for Toxic Substances and Disease Registry (ATSDR), *Medical Management Guidelines for Hydrogen Sulfide*, CAS No. 7783-060-4 (last accessed Feb. 15, 2024), available at <https://wwwn.cdc.gov/TSP/MMG/MMGDetails.aspx?mmgid=385&toxid=67>.

eyes, and lungs and can cause headache, confusion, nausea, and blurred vision, tremors, arrhythmias, loss of consciousness, and death.³⁷ Benzene is also a known carcinogen.

While BP claimed “air monitors haven’t shown elevated readings” from these leaks, residents reported symptoms including “headaches, dizziness, and general malaise.”³⁸ No information regarding either leak was provided to residents via official channels,³⁹ press reports on these leaks have been contradictory, and neither BP nor IDEM released any statements until after the second leak.⁴⁰ While BP reported the January 23rd leak as a release caused by an equipment failure at Vapor Recovery Unit 300, neither BP nor IDEM have clearly identified the location of the January 18th tank leak, which resulted from a 6000 gallon spill of dirty gas oil which released 500 lbs each of benzene and H₂S into the atmosphere.⁴¹ IDEM’s emergency report of this incident details a “release of materials from tank #622 but marked #362” but neither of these tank numbers exist in the BP Permit.⁴² The US Coast Guard National Response Center report notes the leak was from tank #3866, but that tank number does not exist in the Permit either.⁴³ An email from BP to IDEM dated one week after the event suggests this leak occurred in tank #3622 (TK-3622),⁴⁴ but that has not been publicly confirmed.

In short, to the extent BP has an LDAR, the plan is inadequate, BP is failing to follow it, or both. The BP Permit and the LDAR must include every emissions unit in the BP facility to assure compliance and public safety. IDEM should amend the Permit to ensure it includes all the storage tanks on BP’s property and incorporate the LDAR (as IDEM has acknowledged it has the authority to do) to allow the public to comment on it. IDEM also needs to clarify whether their VOC leak monitoring report includes leaks of 2000 ppm for pumps in heavy liquid service and update reporting requirements accordingly.

³⁷ Agency for Toxic Substances and Disease Registry (ATSDR), *Medical Management Guidelines for Benzene*, CAS # 71-43-2 (last accessed Feb. 15, 2024), available at <https://www.cdc.gov/TSP/MMG/MMGDetails.aspx?mmgid=35&toxid=14>.

³⁸ Rebecca Thiele, *Toxic leaks at BP’s Whiting Refinery come as advocates push for stricter pollution control*, IPB News (Jan. 26, 2024), <https://www.wfyi.org/news/articles/toxic-leaks-at-bps-whiting-refinery-come-as-advocates-push-for-stricter-pollution-control>.

³⁹ *Id.*

⁴⁰ Joseph S. Pete, *BP Whiting Refinery suffers two tank leaks and toxic spill amid frigid cold*, NWI Times (Jan. 25, 2024), available at: https://www.nwitimes.com/news/local/bp-whiting-refinery-suffers-two-tank-leaks-and-toxic-spill-amid-frigid-cold/article_e19c701c-bbc6-11ee-9acb-47fd133aae2d.html. Post-Tribune, *IDEM monitoring BP Whiting refinery after two separate tank leaks*, Chicago Tribune (Jan. 25, 2024), available at: https://www.chicagotribune.com/2024/01/25/idem-monitoring-bp-whiting-refinery-after-two-separate-tank-leaks/#ed=rss_www.chicagotribune.com/obf/rss. Commenters note that IDEM’s press release regarding the incidents are no longer available online.

⁴¹ Indiana Department of Environmental Management Emergency Response Incident Reports, dated January 18, 2024 for Incident #110732 and dated January 22, 2024 for Incident #110743 (both regarding January 18 spill and release); dated January 23, 2024 for Incident #110766 (regarding January 23rd release), available at IDEM Virtual File Cabinet.

⁴² Indiana Department of Environmental Management RM Record dated January 22, 2024 for Incident #110743 (January 18 spill and release), available at IDEM Virtual File Cabinet.

⁴³ United States Coast Guard, National Response Center, 2024 Reports, available at <https://nrc.uscg.mil/>. See incident number 1389371.

⁴⁴ Correspondence between Ronald P. Dippo (BP) and Fawn A. Patterson (IDEM), dated January 25, 2024, available at IDEM Virtual File Cabinet.

B. Preventive Maintenance Plan

The petroleum industry has long recognized the importance of effective maintenance plans. Industry insiders acknowledge that “[e]ffective maintenance techniques and modern maintenance technology are critical elements of the safe and efficient operation of refineries and petrochemical plants.”⁴⁵ Additionally, U.S. Chemical Safety and Hazard Investigation Board investigations have identified “[i]nadequate mechanical integrity and preventive maintenance programs, and aging infrastructure and equipment [as the] recurring root cause of incidents” at refineries.⁴⁶ And the Occupational Safety and Health Administration has found that improper maintenance leading to “[f]ailure to correct equipment deficiencies that are outside of acceptable limits” as a “leading cause[] of [process safety management] noncompliance in the petroleum refinery sector.”⁴⁷

To ensure proper maintenance, IDEM must confirm that BP “maintains on-site a preventive maintenance plan [PMP] as described in 326 IAC 1-6-3” as part of the Title V permit application process. 326 IAC 2-7-4(c)(8)(A). The regulation also provides that BP must forward the PMP to IDEM upon request. 326 IAC 2-7-4(c)(8)(B). Because Title V permits must include the “legal and factual basis for the draft permit conditions” (40 CFR § 70.7(a)(5)), they should include a copy of all applicable PMPs. *See also* 40 CFR § 70.6(a)(1)(i).

The BP Permit, however, does not include any PMPs. Instead, it contains a short section titled “Preventive Maintenance Plan” that generally describes PMP regulations under 326 IAC 1-6-3 and 326 IAC 2-7-5(12).⁴⁸ Moreover, because the Permit further mentions a PMP only in discussing two emission units facility-wide (the Wastewater Treatment Plant and the Asphalt Facility), it is unclear if BP even has a PMP for any other emission units.

As with the LDAR, failure to include a PMP (or, if there are separate PMPs for different emission units, all applicable PMPs) prevents the public from determining if the Permit complies with the law. That is especially consequential because the public does not even know whether any of the numerous and recent incidents at the BP refinery are the result of a failure to conduct preventive maintenance.⁴⁹ IDEM must incorporate (as IDEM has acknowledged it has the

⁴⁵ Oil & Gas Journal, *Refiners Focus on Modern Maintenance Techniques* (Jan. 1, 1990), available at: <https://www.ogj.com/refining-processing/refining/article/17214764/refiners-focus-on-modern-maintenance-techniques>.

⁴⁶ U.S. Chemical Safety Board, *CSB’s Drivers of Critical Chemical Safety Change: Preventive Maintenance* (April 2018), available at: https://www.csb.gov/assets/1/6/csb_cdl_fact_sheet_-_preventive_maintenance.pdf.

⁴⁷ OSHA, *Process Safety Management for Petroleum Refineries*, OSHA 3918-08 2017, p. 17, last accessed Feb. 1, 2024, available at: <https://www.osha.gov/sites/default/files/publications/OSHA3918.pdf>.

⁴⁸ BP Permit, Section B.10 Preventive Maintenance Plan, p. 70 (p. 72 of 2363 for the entire permit pdf).

⁴⁹ In addition to the incidents already discussed (January 18th spill and leak, January 23rd release, February 1st power outage), there have been several other significant events over the past eight months. *See* United States Coast Guard, National Response Center, 2023 Reports, Sequence Number 1371210, June 23, 2023 release of unknown amount of H₂S (reported on June 26, 2023) and Sequence Number 1371163, June 25, 2023 power outage leading to release of 300 lbs of H₂S (reported on June 25, 2023); Indiana Department of Environmental Management Emergency Response Incident Report dated November 2, 2023 for Incident #109860, describing a 6019 lb of SO₂ release due to equipment failure and emergency shutdown, available at IDEM Virtual File Cabinet; United States Coast Guard,

authority to do) all applicable PMPs in the BP Permit and allow the public to review and comment on their adequacy.

C. Emergency Reduction Plans

Whiting, East Chicago, and Hammond community members are no strangers to emergencies at BP. On February 1, 2024, a power outage at the refinery required BP to activate their emergency response team, evacuate all non-essential employees, evacuate office buildings and a nearby daycare center, as well as close nearby roads, including nearly a mile section of Indianapolis Boulevard. Citizens took apocalyptic images and videos of BP's flares burning off "excess gasses to relieve pressure on the system,"⁵⁰ which simultaneously released SO₂, NO_x, and H₂S into the air. Without any explanation or producing any evidence, BP announced that atmospheric readings indicated "no danger to the public" while continuing to keep nearby roads closed.⁵¹

Community members noted that PurpleAir monitors across the region showed elevated levels of PM_{2.5}.⁵² At these heightened levels, members of sensitive groups – elderly, children, people with heart and lung disease including asthma, people with lower socioeconomic status, and even just people who are active outdoors – are susceptible to additional health effects and should avoid prolonged exposure while even those not at heightened risk should avoid prolonged or heavy exertion.⁵³ As discussed in the Environmental Justice section above, the communities around BP are disproportionately at increased risk from these exposures.

Indiana regulations require Title V permittees to have "emergency reduction plans" (ERPs) to address incidents like this. Per 326 IAC 1-5-1, ERPs are activated when ambient air concentrations reach pre-determined episode levels listed in 326 IAC 1-5-4. An ERP must "state those actions that will be taken...to reduce or eliminate emissions of the appropriate air pollutants [while] also identify[ing] the sources of air pollutants, the approximate amount of

National Response Center, 2024 Reports, Sequence Number 13889053, January 14, 2024 for SO₂ due to equipment failure, Sequence Number 1388982, January 14, 2024 for unknown emissions exceedance due to pressure transmitter failing, Sequence Number 1388993, January 14, 2024 for unknown amount of H₂S due to freeze up of flare gas recovery unit, Sequence Number 1389002, January 15, 2024 for SO₂ due to flare gas recovery unit freeze, and Sequence Number 1390503 and 1390552, February 1, 2024 for power outage of the facility leading to ongoing release of H₂S and benzene.

⁵⁰ City of Whiting, Important Update – Incident at BP Whiting (last updated at Feb. 2, 2024 1:33PM), available at <https://www.whitingindiana.com/news/important-incident-at-bp-whiting/>.

⁵¹ *Id.*

⁵² PurpleAir, (last accessed Feb. 2, 2024), available at <https://map.purpleair.com/1/mAQI/a10/p604800/cC0?select=185123#12.73/41.65696/-87.47265>. Monitor HARBORWORKS (NLCEP) A in East Chicago had a high reading of 133, while Whiting monitors 1428 Center Whiting IN A and 1428 Center Whiting IN B had high readings of 132 and 128, respectively, at 6:00 (CST) on February 1, 2024.

⁵³ U.S. EPA, Air Quality Index (AQI): A Guide to Air Quality and Your Health (February 2014), available at: https://www.airnow.gov/sites/default/files/2018-04/aqi_brochure_02_14_0.pdf. See also U.S. EPA, *Technical Assistance Document for the Reporting of Daily Air Quality – the Air Quality Index (AQI)* (September 2018), available at: <https://www.airnow.gov/sites/default/files/2020-05/aqi-technical-assistance-document-sept2018.pdf>.

reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.” 326 IAC 1-5-2.

The BP Permit acknowledges that BP must “maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures” and “shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level.”⁵⁴ The Permit does not, however, include any of these ERPs or describe them in anywhere close to enough detail to allow evaluation of their sufficiency.

IDEM should update the Permit to incorporate all ERPs and describe how frequently the emergency reduction plan must be updated and submitted,⁵⁵ as well as by what criteria the ERP will be evaluated to be “consistent with safe operating procedures.”

D. Risk Management Plan

Federal Clean Air Act regulations state that “an owner or operator of a stationary source that has more than a threshold quantity of a regulated substance [as defined in 40 CFR § 68.115 and 68.130] in a process shall” develop a “risk management plan” (“RMP”). 40 CFR § 68.10(a). An RMP must include an executive summary detailing accidental release prevention and emergency response policies, the general accidental release prevention program and chemical-specific prevention steps, five-year accident history, the emergency response program, and planned changes to improve safety. 40 CFR § 68.155. RMPs must also include an offsite consequence analysis which would discuss worst-case release scenarios. 40 CFR § 68.165.

As one of the largest petroleum refineries in the country, BP Whiting has far “more than a threshold quantity” of “regulated substances” as listed in 40 CFR § 68.130. The BP Permit, however, does not include an RMP or any description of RMP terms. Instead, Permit section C.17 (titled “Risk Management Plan”) is a single sentence long. It states: “*If* a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.” (emphasis added).

Just as with the documents discussed above, IDEM’s failure to include an RMP in the Permit prevents compliance with 40 CFR § 70.6(a)(1) and (1)(i). The conditional, one-sentence RMP section also fails to comply with 326 IAC 2-7-5, which requires permits to “include a certification statement that the source is in compliance with all requirements of 40 CFR 68, including the registration and submission of [an RMP].” Once again, Commenters ask that IDEM amend the Permit by adding the RMP so that it is available for public and regulatory review and comment.

IV. The BP Permit should require fenceline monitoring with real-time data reporting to the public.

⁵⁴ BP Permit, Section C.16 Emergency Reduction Plans, p. 86 (page 88 of 2363 for the entire permit pdf).

⁵⁵ IDEM representatives suggested that these plans were submitted in 1979 or the 1980s and could be found on the Virtual File Cabinet. Comments by IDEM representatives at IDEM public meeting, February 22, 2024. Commenters note that while IDEM may be correct that these ERPs have never needed to be utilized, during an emergency is not the time to discover that plans made **40 years ago** are insufficient.

“Each permit issued under [Title V] shall set forth...monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions.” 42 U.S.C. § 7661c(c). This includes ensuring that the permit includes “periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.” 40 CFR § 70.6(a)(3)(i)(B).

While fenceline monitoring is only currently required for benzene by federal regulations,⁵⁶ IDEM can reasonably conclude that current monitoring requirements at BP are insufficient to assure compliance and additional measures are required.

It is imperative that the public not only be informed of what pollutants are in the air they breathe, they must also be able to access this data in real time. Quarterly reporting of emissions and/or exceedances does not adequately notify communities of the risks they face or steps they should take to protect their health. And given BP’s long track record of failing to protect communities’ health and safety, the public should not have to take BP’s word at face value. Therefore, not only should IDEM require BP to make its current mobile and/or stationary air monitor equipment data available (including the readings during these events), but also require BP to install a comprehensive network of fenceline monitoring devices combined with real-time data reporting on a public-facing web platform.

Comment 3: Require a Compliance Schedule

IDEM consistently argues that permit issuance and permit enforcement are separate issues overseen by different sections of the agency, which supposedly makes permit violations immaterial to the permitting process. Federal regulations, however, require each permit to include a provision stating that “[t]he permittee must comply with all conditions of the part 70 permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; *for permit termination*, revocation and reissuance, or modification; or for *denial of a permit renewal application*.” 40 CFR § 70.6(a)(6)(i) (emphasis added). This provision is included in bold letters on the title page of the BP Permit. This acknowledgment belies IDEM’s denial of authority to revoke, terminate, or deny BP’s permit at the public meeting and elsewhere.⁵⁷

Short of terminating a permit or denying a renewal application, IDEM must at least ensure that noncompliant facilities have a documented plan to remedy that noncompliance as a part of the permitting process. Under 40 CFR § 70.6(c)(3), “[a]ll part 70 permits shall contain...[a] schedule of compliance consistent with 70.5(c)(8)(iii)(C). And 40 CFR § 70.5(c)(8)(iii)(C) requires “[a] schedule of compliance for sources that are not in compliance with all applicable requirements at the time of permit issuance.” This must include “a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at

⁵⁶ 40 CFR § 63.658.

⁵⁷ Comments made by IDEM representatives on February 22, 2024 at the IDEM public meeting for the BP Permit renewal, including that there was “no basis to deny the Permit.”

the time of permit issuance.” *See also* 42 U.S.C. § 7661c(a); 326 IAC 2-7-4(c)(9)(B)(iii). Indiana statutes also require that permit applications describe the compliance status of the source along with “a narrative description of how the source will achieve compliance with the requirements.”⁵⁸ 326 IAC 2-7-4(c)(9)(A)(iii).

BP is unquestionably out of compliance with applicable requirements such that a compliance schedule is required. First, BP Permit’s technical support document (“TSD”) states that “IDEM is aware that the petroleum refinery has alleged violations of its Title V permit,” and that “IDEM is reviewing these alleged violations and will take appropriate action.”⁵⁹ At the public meeting for the BP Permit, IDEM was careful to avoid stating that BP required a compliance schedule but acknowledged ongoing investigations into the recent incidents.⁶⁰

Second, recent quarterly reports demonstrate BP’s noncompliance with Permit terms and the 2012 Consent Decree. *See e.g.*, Fourth Quarter 2023 – Quarterly Title V Deviation and CAM Report dated January 30, 2024; VOC Leak Monitoring Report – Fourth Quarter 2023 dated January 30, 2024; Enforcement Action/Referral to USEPA, Region 5 dated January 2, 2024.⁶¹ BP acknowledges as much in its permit application where it has certified its compliance status as compliant “[e]xcept as identified in the Quarterly Deviation Reports that are submitted to IDEM.” *See* BP Permit Application dated March 27, 2019.⁶²

Third, even more recent incidents further evidence ongoing violations at the refinery.⁶³ As previously discussed, BP is still working to ramp up the facility since the February 1, 2024

⁵⁹ Permit, Technical Support Document (TSD), p. 48 (page 1690 of 2363 for the entire permit pdf).

⁶⁰ *See*, Joseph S. Pete, *IDEM pursuing enforcement and fines against BP for recent refinery issues*, NWI Times (Feb. 24, 2024), available at https://www.nwitimes.com/news/local/idem-pursuing-enforcement-and-fines-against-bp-for-recent-refinery-issues/article_34e12dce-d299-11ee-95c7-d37f29e5aecd.html.

⁶¹ *See* Letter from Donnie W. Brown, Vice President - Refining, BP Products North America Inc. to Constantinos Loukeris, U.S. EPA, dated January 29, 2024. BP’s “force majeure” argument for violating their consent decree requirement to install temporary benzene strippers by January 31, 2024 is inadequate. The 2023 Consent Decree Part X provides that BP must notify U.S. EPA and IDEM “within seven days of when BPP first knew that the event might cause a delay” regardless of whether it was a force majeure event. Winter conditions in Northwest Indiana and a lengthy permit process (as they were still waiting on their renewal permit from 2020) are hardly unforeseeable. Certainly, BP knew they would be delayed well before January 22nd - that is seven days prior to their written notice - and coincidentally only two days before their deadline. In short, BP is also already noncompliant with their most recent consent decree.

⁶² BP Title V Permit Renewal Application dated March 27, 2019 (received by IDEM April 1, 2019), pdf p. 83.

⁶³ Just since November 2023 these incidents include: Indiana Department of Environmental Management Emergency Response Incident Report dated November 2, 2023 for Incident #109860, describing a 6019 lb of SO₂ release due to equipment failure and emergency shutdown, available at IDEM Virtual File Cabinet; United States Coast Guard, National Response Center, 2024 Reports, Sequence Number 13889053, January 14, 2024 for SO₂ due to equipment failure, Sequence Number 1388982, January 14, 2024 for unknown emissions exceedance due to pressure transmitter failing, Sequence Number 1388993, January 14, 2024 for unknown amount of H₂S due to freeze up of flare gas recovery unit, Sequence Number 1389002, January 15, 2024 for SO₂ due to flare gas recovery unit freeze, and Sequence Number 1390503 and 1390552, February 1, 2024 for power outage of the facility leading to ongoing release of H₂S and benzene.

power outage, and in the meantime, has continued flaring excess gases into the atmosphere, including emissions of NOx, H2S, and SO2 of unknown quantity.⁶⁴ Particularly when all of these issues are taken together, BP is out of compliance with the “applicable requirements” of emission standards, permit terms, and consent decree conditions.

Therefore, IDEM must include a compliance schedule with the Permit, meaning “a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance.” 40 CFR § 70.5(c)(8)(iii)(C). Significantly, this compliance schedule must “be *at least as* stringent as that contained in any judicial consent decree or administrative order to which the source is subject.” 40 CFR § 70.5(c)(8)(iii)(C) (emphasis added). Finally, it will “be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.” *Id.*

CONCLUSION

IDEM has repeatedly said that it is drafting permits that are consistent with regulation and statute. As shown here, that is just not the case, as the Permit fails to require monitoring, record keeping, and reporting as mandated by law. Also, IDEM failed to incorporate many key documents into the Permit, such as the LDAR plan. IDEM also insists the ongoing spate of incidents and violations are not relevant to permit terms, but this is similarly not true. By law, IDEM must require BP to have a compliance schedule and could deny this permit renewal or revoke their current operating permit for these violations.

We hereby reiterate our recommendations that IDEM draft a permit which advances environmental justice, assures continuous compliance, and requires a compliance schedule as mandated by law.

Respectfully submitted,

/s/Kerri Gefeke

Kerri Gefeke (kgefeko@elpc.org)
Associate Attorney
Environmental Law & Policy Center

Ellis Walton
Associate Attorney
Environmental Law & Policy Center

Rob Michael
Managing Attorney
Environmental Law & Policy Center

Mark N. Templeton
Director
Abrams Environmental Law Clinic

Michael J. Zoller
Senior Attorney
Conservation Law Center

Akeeshea Daniels
East Chicago Calumet Coalition –
Community Advisory Group

⁶⁴ While the emissions from this event have yet to be determined, the power outage in 2023 led to a release of approximately 700,000 lbs of SO2 and 4,000 lbs of H2S.

Lori Locklear
East Chicago Calumet Coalition –
Community Advisory Group

Maritza Lopez
East Chicago Calumet Coalition –
Community Advisory Group

Sanghyun Lee
Attorney
Environmental Integrity Project

Brian Sauder
President and CEO
Faith in Place

Dorreen Carey
President
Gary Advocates for Responsible
Development (GARD)

Indra Frank, MD, MPH
Env't Health and Water Policy Director
Hoosier Environmental Council

Ashley Williams
Executive Director
Just Transition Northwest Indiana

Tim Koenning
Hamill Calumet Conservation Senior Coord.
National Parks Conservation Association

Julie Peller, PhD
Professor of Chemistry, Valparaiso
Northern Lake County Environmental
Partnership

Betsy Maher
Executive Director
Save the Dunes

cc: Paymon Danesh, Air & Radiation Division, EPA Region 5
Beth Valenziano, Air & Radiation Division, EPA Region 5
Alan Walts, Director, Tribal and Multi-media Programs Office, EPA Region 5