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July 1, 2024

Via Electronic Delivery Only

Ms. Nikki Gardner
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Re: Comments on Tentative Determination to Modify NPDES Permit No. IN0000281
United States Steel Corporation – Gary Works

Dear Ms. Gardner:

The Environmental Integrity Project (EIP), Environmental Law & Policy Center (ELPC), the Conservation Law Center (CLC), Gary Advocates for Responsible Development (GARD), Just Transition Northwest Indiana, Save the Dunes, Environmental Advocacy Center Northwestern Pritzker School of Law, Izaak Walton League of America (Indiana Division), Hoosier Environmental Council, and Green EC (collectively, "Commenters") respectfully submit the comments below to the Indiana Department of Environmental Management ("IDEM" or "the Department") on its tentative determination to modify the NPDES Permit for United States Steel Corporation (US Steel) – Gary Works (the Facility) (NPDES No. IN0000281) (Draft Permit Modification). Commenters appreciate the hard work that has gone into drafting the Permit Modification and thank you for the opportunity to comment. We have identified several issues that should be addressed before the Draft Permit Modification and Fact Sheet are finalized, as detailed in the following Comments.

EIP is a national nonprofit organization headquartered at 888 17th Street NW, Suite 810, Washington, D.C. 20006. EIP is dedicated to advocating for more effective environmental laws and better enforcement. EIP has three goals: (1) to illustrate through objective facts and figures how the failure to enforce or implement environmental laws increases pollution and harms public health;; (2) to hold federal and state agencies, as well as individual corporations, accountable for failing to enforce or comply with environmental laws; and (3) to help local communities obtain the protection of environmental laws.

ELPC is the Midwest's leading environmental legal advocacy organization that drives transformational policy changes with national impacts. Its mission is to ensure that all people have healthy clean air to breathe, safe clean water to drink, and can live in communities without toxic threats, especially in the Great Lakes region. As part of this work, ELPC focuses on industrial

pollution along the Indiana lakeshore, seeking to make industry comply with environmental regulations to reduce pollution and improve the landscape where people live, work, and play.

CLC, based in Indiana, provides legal counsel without charge to conservation organizations, works to improve conservation law and policy, and offers students at the IU Maurer School of Law clinical experience in the practice of law and the profession's public service tradition.

I. Background

The Facility is located along the Northwest Indiana shoreline at the southernmost point of Lake Michigan, adjacent to Indiana Dunes National Park. It began operations in 1909 and was previously the largest integrated steel mill in the world; at 4,000 acres it remains the largest in the United States.[1] Once Gary's largest single employer (with over 30,000 workers in the 1970s), the Facility now employs only around 3,700 workers.[2] The Gary Works Facility has an annual raw steelmaking capability of 7.5 million net tons and manufactures finished steel and tin products. US Steel claims to recognize "the critical role water plays in our operations and how water usage, quality and treatment are important. Our facilities use a considerable amount of water for cooling and process purposes. We recognize that water is an invaluable resource and it is essential to our business, our stakeholders and our communities that we do our best to manage consumption and increase efficiency."[3] In reality, US Steel is one of Gary's largest sources of water pollution.[4]

The Facility receives source water for both its process and non-contact cooling water needs from five intakes, all located in Lake Michigan: three of the intakes are located within the ore loading slip of Gary Harbor (No. 1 Pump Station, No. 3 Pump Station, and No. 4 Pump Station); one is located at the mouth of the ore loading slip in Gary Harbor (No. 2 Pump Station); and one is located approximately 3,000 feet offshore in Lake Michigan (Lakeside Pump Station).[5] Its current NPDES permit authorizes it to discharges to receiving waters identified as the Grand Calumet River and Lake Michigan.

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[1] Commenters are aware of Nippon's pending bid for US Steel – including the entities' receipt of all non-U.S. regulatory approvals (May 30, 2024) -- and note that there are many concerns about the secondary environmental impacts such a merger could portend. *See, e.g.,* Jim Tankersley, *Biden Faces More Pressure From Environmentalists to Block Steel Merger* (Feb. 16, 2024); *Environmental watchdog accuses Nippon Steel of "coal addiction"* (May 31, 2024).

[2] Santul Nerkar, *A City Built on Steel Tries to Reverse Its Decline*, NY Times (Feb. 3, 2024).

[3] US Steel, *Water Quality and Conservation* (last accessed May 29, 2024).

[4] U.S. EPA, ECHO facility search (limited to: Media – Wastewater/Stormwater/Biosolids (CWA); Geographic Location– Gary/Indiana; Pollutants – DMR Toxic-Weighted Loadings (lb-eq/year) and DMR Conventional Loadings (lb/year)) (search performed on June 10, 2014). US Steel is the highest source of DMR conventional loadings, and third-highest source of toxic-weighted loadings (following Gary Sanitary District and Linde Inc. – Gary Lakeside).

[5] US Steel Corp. (by Ramboll U.S. Corp.), "Clean Water Act Section 316(b) Requirements for Cooling Water Intakes Structures Pursuant to 40 CFR part 122.21(r)(9) – (12)" (May 2020). This document was included with IDEM's issuance of the currently effective NPDES permit and begins at p. 1,075 of the electronic document.

II. Commenters Oppose Specific Requested Modifications to the Permit.

US Steel has requested several changes in its application for modifications which are not supported by the application, law or regulation, and IDEM should deny them accordingly.

A. Relocation of the TSS TBEL Compliance Point from final Outfalls 028/030 (600) to internal Outfall 603

IDEM has indicated in the draft Fact Sheet for the proposed Permit Modification that it agreed to move the numeric technology-based effluent limits ("TBELs") for total suspended solids (TSS) from final Outfalls 028/030 (virtual Outfall 600, the mathematical combination of Outfall 028 and Outfall 030) to a new administrative outfall, to be designated as internal Outfall 610, and that TSS monitoring requirements will be retained at Outfalls 028/030 (Outfall 600). Also according to the draft Fact Sheet, permitted discharges at final Outfalls 028/030 (Outfall 600) currently (*i.e.,* as of the 2021 permit) include treated wastewater from #2 Continuous Caster non-contact cooling water; miscellaneous non-contact cooling water; #1 BOP/QBOP Cooling Tower blowdown; steam condensates; 160"/210" Plate Mill Scale Pit; Internal Outfall 603 wastewaters; and storm water from areas east of Buchanan Street. We offer the following comments on this portion of the Draft Permit Modification and Fact Sheet.

1. Moving Compliance Point to Internal Outfall May Be Appropriate Where It More Closely Connects Compliance to Process Wastewater

As a general matter, Commenters would not object to moving a compliance point to an internal outfall to the extent that it connects compliance more closely to the process wastewater, given that the TBELs contained in the federal effluent limitation guidelines ("ELGs") for the iron and steel manufacturing point source category, 40 C.F.R. Part 420 (applicable to the US Steel Facility) require TSS limits specifically for process wastewater. *See* 40 C.F.R. 420.01 ("The provisions of this part apply to discharges . . . resulting from production operations in the Iron and Steel Point Source Category.").[6] The proposed Permit modifications also keep the existing monitoring requirements at the external outfall (despite permittee's request to the contrary), which Commenters support as well.

At the same time, though, a modification of the compliance point for the limit could, in effect, allow the permittee to increase its TSS loads at the external outfall, and IDEM should account for that possibility. In particular, commenters recommend that IDEM: (1) include a conditional limit for such a scenario at page 29 under the reference to Outfalls 027/028/030 (Outfall 600) in the Permit Modification (which currently only contains reporting requirements for TSS); and/or (2) add reopener language at page 113 of the Permit Modification specifically

[6] *See also* 39 Fed. Reg. 24114 (June 28, 1974) ("One commenter pointed out that the preamble to the proposed regulation indicated that these limitations were intended to apply only to process waste waters and not to non-contact cooling waters but that the regulation itself does not so indicate. The applicability section of each subpart has been revised to indicate that the limitations are applicable to the process waste waters related to the operation to which the limitations apply.").

allowing for the Permit to be reopened in the event that the TSS load is increased at the external outfall.

2. Impacts of Elevated TSS Levels in Non-Contact Cooling Water

For some discharges from the Facility, water quality-based concerns could develop that would support a limit at the external outfall to ensure that controls are inclusive of the non-contact cooling water. As one example, if any evaporation were to occur during cooling, it could increase concentrations of certain pollutants, like TSS – impacting water quality in the receiving waterway. Consequently, Commenters recommend that IDEM add reopener language at page 113 of the Permit Modification specifically allowing for the Permit to be reopened to add a limit at external Outfall 600 if needed to ensure that water quality is sufficiently protected (including if the concentration of TSS becomes higher at external Outfall 600 than at Internal Outfall 610).

3. Labelling of Outfalls 603 and 610 Needs Revision

Commenters have identified a possible typographical error with regard to the labelling of the external outfall that continues to have monitoring from internal outfalls 028/030, since it is referred to variously as Outfall 603 and 610. The highlighted reference below may be in error which should be addressed. At section 3.2.1, the Draft Fact Sheet (p. 15) indicates that:

> 1. Relocation of the TSS TBEL Compliance Point from final Outfalls 028/030 (600) to internal Outfall ***603***
>
> IDEM agrees to move the numeric TSS TBEL limits from final Outfalls 028/030 (Outfall 600) to a new administrative outfall, to be designated as internal Outfall ***610***. TSS monitoring requirements will be retained at Outfalls 028/030 (Outfall 600). Permit Parts I.A.10 and I.A.11 have been modified. Affected pages of the permit as issued on April 22, 2021, are 28 through 32 of 152.

B. 316(b) Compliance Options

Section 316(b) of the Federal Clean Water Act (CWA) requires that the location, design, construction, and capacity of cooling water intake structures (CWIS) associated with NPDES facilities reflect the best technology available (BTA) for minimizing adverse environmental impact. 33 U.S.C. 1326(b). Specifically, because the Facility has a design intake flow (DIF) greater than 2 MGD, the applicable regulation (40 C.F.R. 125.94(a)(1)) requires the Facility to meet the BTA standards for fish or shellfish impingement mortality under 40 C.F.R. 125.94(c), which provides seven alternatives for existing facilities to meet BTA standards. The two BTA methods relevant to this permit modification are: (1) a maximum through-screen actual velocity of 0.5 feet per second (40 C.F.R. 125.94(c)(3)) ("velocity method"); and (2) operation of a modified traveling screen (40 C.F.R. 125.94(c)(5)) ("traveling screen method"). Under the velocity method, the "maximum velocity must be achieved under all conditions." 40 C.F.R. 125.94(c)(3).

1. 316(b) Compliance Option for Pump Station No. 1

US Steel admits in its renewal application for the current (2021) Permit that Pump Station No. 1 ("PS No. 1") (along with Pump Station No.2) is not in compliance with BTA. US Steel 2020 Application for Renewal, Part 2 of 2, pdf p. 10 (May 1, 2020). The 2021 Permit indicated that US Steel could meet BTA by installing modified traveling screens in compliance with 40 C.F.R. 125.94(c)(5). However, US Steel has since "re-evaluated potential compliance methods for meeting the impingement reduction standard" and determined that "compliance with the impingement BTA standard of operating at a maximum actual through screen velocity (TSV) of 0.5 feet per second (fps) under 40 C.F.R. 125.94(c)(3) is feasible and preferred." Draft Fact Sheet, p. 11. As explained below, there are at least three reasons IDEM should not approve the velocity method for US Steel at PS No. 1.

First, US Steel has not demonstrated any ability to meet the actual TSV of 0.5 fps at PS No. 1. The reported actual intake velocity at PS No. 1 has historically been near and even above 2 fps, four times higher than the velocity limit threshold. "Ranges for actual intake velocity at each operational pump station are as follows: No. 1 Pump Station ranges from 1.97 to 2.28 fps." US Steel 2020 Application for Renewal, Part 2 of 2, pdf p. 9 (May 1, 2020); *see also id.* at Chart 15, pdf p. 30 and Table 16, pdf p.87. Neither the Draft Permit Modification nor Draft Fact Sheet acknowledge -- let alone explain -- how such a drastic reduction in actual TSV will occur. Instead, the Draft Fact Sheet (p.11) simply states in a conclusory fashion that there is a "projected maximum flow of 172.8 MGD" (which translates to 0.49 fps) with no explanation or supporting documentation for this projection.

Daily flow volumes for PS No. 1 from April 2023 to March 2024 have been a bit lower, ranging between 164.9 MGD to 247 MGD (equating to a flow velocity of 0.47-0.7 fps with 543 sf of intake screen area), with most days reporting 191.5 MGD (equating to a flow velocity of 0.55 fps with 543 sf of intake screen area). Table 1, US Steel 2024 Annual Summary of Intake Flows (May 1, 2024). But only five days in that one-year period recorded intake flows less than 172.8 MGD/.5 fps, and were, therefore, anomalies when US Steel had likely decreased operations in the number of hours or number of pumps operated for those days. *See* Tables 1 and 4, US Steel 2024 Annual Summary of Intake Flows (May 1, 2024). The Draft Permit Modification fails to include any provisions ensuring that PS No. 1 limits its operations to prevent exceeding a maximum flow of 172.8 MGD and therefore ensuring that it will meet a maximum actual TSV of 0.5 fps.

Second, using the velocity limit approach requires facilities to "ensure that fish are actually able to swim away (not into an embayment from which they cannot escape) from the location within the intake structure at which they are most susceptible to being impinged." National Pollutant Discharge Elimination System–Final Regulations to Establish Requirements for Cooling Water Intake Structures at Existing Facilities and Amend Requirements at Phase I Facilities, 79 Fed. Reg. 48300, 48373 (Aug. 15, 2014). US Steel's supporting documentation fails to show that it has met this requirement in at least three separate ways:

- US Steel is installing two fixed screens to replace existing solid bulkheads, potentially increasing the likelihood of fish impingement, particularly as IDEM states that the "fixed screens are not required to meet the BTA standard except possibly during maintenance and cleaning." Draft Fact Sheet, p. 11. No authority, rationale, or information is provided to support this assertion.
- Even where US Steel is using traveling screens, fish may still be getting trapped and unable to escape because the extended piping for the water intake for PS No. 1 may prohibit fish from getting back to the lake (two approximately 100'-120' pipes draw water from the inlet to the intake bays in front of the traveling screens). *See* Pump Station 1 General Arrangement and Piping and Instrumentation Diagrams, US Steel 12-Month Schedule of Compliance Progress Reports (April 29, 2022). Additionally, the PS No. 1 "existing infrastructure does not currently support discharge of return water back to the Gary Harbor Slip" (US Steel 2021 Permit, pdf p. 227) and fish and caught on the traveling screens are merely "discharge[d] through retaining baskets to the intake bays in front of the traveling screens." Draft Fact Sheet pp. 10-11.
- US Steel is increasing the size of all the screens from 1/4-inch square and 1/8-inch square mesh to 3/8-inch square mesh, which could result in increased entrainment by increasing the size of fish (and number of fish larvae and eggs) that can pass through the screen and be carried into the water intake. Draft Fact Sheet, p. 11. US Steel failed to study the impact that increasing the mesh size of its screens would have on fish entrainment as part of its technical feasibility and cost evaluation study, US Steel 2021 Permit, pdf. p. 1121 (April 22, 2021), and IDEM fails to discuss it in the Draft Fact Sheet as well.

Third, it is particularly inappropriate for IDEM to allow US Steel to use the velocity method here because there are feasible options that would work. Studies that US Steel commissioned for its 2021 permit application identified six technologies as having "reasonable potential for effective application" at PS No. 1, including ultrasonic barrier, electrical barriers, multi-technology behavioral system, barrier nets, high velocity angled screens, and fish-friendly traveling screens.[7] US Steel 2021 Permit, Attachment IV, 316(b) Required Information, p. 28 (pdf. p. 969).

Commenters also note that PS No. 1 was to have all modifications installed and operating by May 1, 2024, according to the schedule of compliance. Draft Permit Modification, pp. 63a, 112. Furthermore, IDEM required US Steel to fix the reported issues "preventing accurate flow meter readings in the north tunnel (PS No. 1)." *Id.* at 142. While IDEM issued the Draft Permit Modification and Fact Sheet after this date (*i.e.,* on May 15, 2024), those documents failed to indicate whether US Steel in fact met these obligations by May 1, as required.

Finally, the regulatory requirements are expressed in units of feet per second, whereas the through-screen design velocity and through-screen actual velocity calculations used in the Draft

[7] To the extent that US Steel is using traveling screens at PS No. 1, they are not fish-friendly as they do not contain fish returns.

Permit Modification to determine compliance are in MGD. This discrepancy frustrates the public's ability to understand the permit terms. The two sets of units should be the same, such that through-screen design velocity and through-screen actual velocity should also be provided in units of feet per second, not only in millions of gallons per day. *See* 40 C.F.R. 125.94(c)(2) (A facility must operate a cooling water intake structure that has a maximum design through-screen intake velocity of 0.5 feet per second); 125.94(c)(3) (A facility must operate a cooling water intake structure that has a maximum through-screen intake velocity of 0.5 feet per second). Corresponding units should be enforced in reporting as well.

2. 316(b) Compliance Option for Lakeside Pump Station

US Steel asserts in its most recent permit renewal application that Lakeside Pump Station ("Lakeside PS") is compliant with BTA. US Steel 2020 Application for Renewal, Part 2 of 2, pdf p. 10 (May 1, 2020). However, the current (2021) permit still required US Steel to notify IDEM of which impingement BTA method the Facility would follow within six months of the permit's effective date within a three-year schedule of compliance. US Steel 2021 Permit, p. 112 (April 22, 2021). The two choices identified were the velocity method (40 C.F.R. 125.94(c)(3)) or the traveling screen method (40 C.F.R. 125.94(c)(5)). In its 12 Month Schedule of Compliance Progress Report, US Steel reported its decision to use a maximum actual TSV of 0.5 fps rather than traveling screens. Draft Fact Sheet, p. 17.

US Steel has failed to demonstrate that the velocity method is appropriate for use at Lakeside PS for at least two reasons. First, as noted above, US Steel must be able to demonstrate that it can achieve the velocity method "under all conditions." 40 C.F.R. 125.94(c)(3). However, the US Steel 2021 Permit Fact Sheet indicates that although current intake velocities at Lakeside PS are presently under 0.5 fps, "through-screen velocities at the Lakeside PS would be above 0.5 fps at intake flows observed in earlier years." US Steel 2021 Permit, pdf p. 232. Second, the velocity method is improper unless the facility "ensure[s] that fish are actually able to swim away" from the area where they are most susceptible to being impinged. National Pollutant Discharge Elimination System–Final Regulations to Establish Requirements for Cooling Water Intake Structures at Existing Facilities and Amend Requirements at Phase I Facilities, 79 Fed. Reg. 48300, 48373 (Aug. 15, 2014). However, US Steel's own impingement studies "showed significant numbers of yellow perch impinged at the Lakeside PS traveling screens . . .. despite the low velocity at the submerged intake openings." US Steel 2021 Permit, pdf p. 232.

US Steel does not indicate that it has made any improvements to its Lakeside PS traveling screens in its Draft Permit Modification Application (May 16, 2023), nor does IDEM describe any changes in the Draft Fact Sheet. Rather, US Steel simply states that because "LSPS intake operates with a maximum actual TSV of 0.5 fps," the compliance schedule "has been achieved." US Steel 12-Month Schedule of Compliance Progress Reports, pdf p. 13 (April 29, 2022). IDEM needs to explain why it has accepted US Steel's assertion with no analysis into how impingement will be reduced or how the Lakeside PS traveling screens are now compliant with federal rules despite no reported changes being made.

C. Add GW-10 Lift Station as New Final Outfall (Proposed Outfall 027)

The Draft Permit authorizes Outfall 027 as a new emergency overflow outfall from the GW-10 Lift Station to be used only for "emergency type situations should GW-10 lift station not be able to pump the entirety of the flow to Outfalls 028 and 030." Draft Fact Sheet p. 15. This proposal is legally improper; at a minimum, it requires significant clarification.

First, the Draft Fact Sheet states that "[i]n emergency situations GW-10 lift station can overflow directly to the Grand Calumet River." Draft Fact Sheet p. 15. This GW-10 Overflow is currently included in the permit as Process Overflow 1 ("POF1") as an emergency-only process overflow. US Steel 2021 Permit, pdf p. 352, 631-633. Neither the Draft Permit Modification Application (May 16, 2023) nor the Draft Fact Sheet explain how Outfall 027 differs from POF1, or what the purpose or effect this separate permitting action is expected to have on this already established process. Indeed, it appears that the Facility is seeking to permit this GW-10 Overflow simply because it could not consistently ensure that all discharges which should go to Outfalls 028 and 030 do so -- which violates the prohibition against backsliding contained in the CWA, 33 U.S.C. 1342(o); 40 C.F.R. 122.44(l); *see also* 327 IAC 5-2-10(a)(11).

Second, neither the Draft Permit nor the Draft Fact Sheet identify what conditions amount to an "emergency situation." The documents are similarly silent about the history, frequency, or causes of these "emergency" overflows. Any valid permit for such discharges must specifically define when they are allowed and outline the facility's responsibilities for incident response, such as the provisions contained in 40 C.F.R. 122.41(l)(6). The Facility's permit also needs to specify the Facility's time to both respond to and terminate this emergency overflow directly into the Grand Calumet River. Furthermore, the permit must include terms outlining what response and prevention measures US Steel is required to take in an emergency, including inspection frequency of GW-10 and its components to limit the frequency of such events.

Third, use of Outfall 027 as an emergency overflow outfall from the GW-10 lift station is also problematic because the GW-10 lift station does not pump to Outfalls 028 and 030, but rather to the Terminal Lagoon Distribution Chamber, where the wastewaters "combine with GW-11 lift station and GW-12 lift station flows before entering the Terminal Lagoons." Draft Fact Sheet, p. 14*; see also* Figure 4: Current Line Discharge Diagram, Draft Fact Sheet, p. 6. The Draft Fact Sheet fails to discuss the impact of wastewaters from GW-11 and GW-12 on the discharge from Outfalls 028 and 030. The Draft Fact Sheet also fails to discuss whether and how the lagoons impact water quality from those outfalls, and therefore, whether an outfall directly from GW-10 lift station would be the same as that from Outfalls 028 and 030.

The Draft Permit's proposed Outfall 027 also raises additional questions of potential backsliding and noncompliance with antidegradation requirements.

First, the Draft Permit Modification contains effluent limitations that are less stringent than those in the existing permit. For example, the limit for TSS at Outfalls 028/030 (Outfall 600) was changed from a numerical limit in the current (2021) Permit to a reporting requirement in the Draft Permit Modification. Previously the TSS Monthly Average limit had been 1,667

lbs/day and the Daily Maximum was 4,825 lbs/day, US Steel 2021 Permit, while the Draft Permit Modification simply requires a "Report" for TSS at Outfalls 027/028/030 (Outfall 600). Draft Permit Modification at p. 29, Discharge Limitations Table. As these changes create limits which are less stringent than the effluent limitations in the previous permit, this may constitute a violation of the CWA's prohibition against backsliding, 33 U.S.C. 1342(o); 40 C.F.R. 122.44(l); *see also* 327 IAC 5-2-10(a)(11).

Second, the Draft Fact Sheet claims that this "is not a new discharge as the wastewaters are currently discharged through the Outfall 028 and Outfall 030 structures" and that "[n]o new or increased permit limits are required or proposed." Draft Fact Sheet at p. 18. However, just five sentences later it announces that "[t]he draft permit contains new effluent limits for mercury at Outfall 027." *Id.* While the Draft Permit Modification (p. 112) states that the permittee shall achieve "compliance with the effluent limitations specified for **mercury at Outfall 027**" according to a compliance schedule (emphases in original), neither the Draft Permit Modification nor the Draft Fact Sheet contain an interim discharge limit for mercury from Outfall 027, let alone explain why a new mercury limit is necessary if this is not a new discharge and no new limits are required or proposed. This could raise an antidegradation issue under 327 IAC 2-1.3; *see also* 40 C.F.R. 131.12. Furthermore, IDEM must explain why a 36-month compliance schedule to meet "the new effluent limits" is required. Draft Permit Modification, p. 112.

Finally, the Draft Permit proposes that Outfall 027 will discharge directly into the Grand Calumet River (GCR). The GCR is an Area of Concern (AOC) under the Great Lakes Water Quality Agreement of 1987, primarily due to legacy industrial pollutants, including heavy metals such as mercury. EPA, Grand Calumet River AOC (last updated May 20, 2024). It has 12 remaining Beneficial Use Impairments but has been identified as an AOC "where completion of management actions [leading to delisting] could be achieved by FY2029." Great Lakes Restoration Initiative, Draft Action Plan IV, p. 14 (April 11, 2024). Discharges into the GCR, such as US Steel's recent 16-minute-long discharge of approximately 115,000 gallons of wastewater into the GCR from GW-10 lift station overflow, risk further degradation of this Great Lakes watershed. U.S. Steel Overflow Incident Report (June 5, 2024). IDEM should add provisions to the Permit Modification, consistent with the addition of Outfall 027 as an emergency outfall, that anticipate situations like pump malfunctions, including, *e.g.,* increased inspection frequency and containment measures.

The proposed discharges directly to the GCR are especially alarming given their sheer anticipated volume: a future discharge of the same length of time as occurred on June 5, 2024 could release up to 333,328 gallons of wastewater into the GCR. *See* Draft Permit Modification Application, pdf p.63 (November 9, 2023) (providing a calculated maximum discharge of 30 MGD or 20,833 GPM). If this wastewater were to include pollutants such as mercury (as the Fact Sheet and Draft Permit Modification suggest it might), discharges of this type could negatively impact the planned restoration and cleanup projects for the AOC and prevent its delisting. This is particularly significant here, where US Steel already operates under a mercury variance for Outfalls 028 and 030 because it has failed to meet mercury WQBEL standards. Draft Permit Modification, p. 31; *see also* Draft Permit Modification Application, pdf pp. 73, 83 (November 9, 2023).

D. Sinter Plant Name Change

The Facility has requested all references to "sinter," including "sinter plant," and the "sintering" process to be changed to "recycled raw materials," "recycling plant" and "recycling" of raw materials. IDEM approved this request but also stated that "because the recycling plant is a sintering plant as that term is defined in the ELGs, the term sinter plant is included in parentheses to ensure understanding of applicable ELGs." Draft Fact Sheet at p. 19. While requiring this parenthetical is certainly better than approving the Facility's request without it, Commenters reiterate their request to IDEM to reject this modification request as it merely serves to "obfuscate the Sinter Plant's purpose and create regulatory and public confusion." *See* EIP, ELPC *et al.* Comments on U.S. Steel Corporation – Gary Works Part 70 Air Operating Permit No.: T089-46943-00121 (April 29, 2024).

IV. US Steel's History of Noncompliance Supports the Imposition of Additional Limits and Additional Monitoring and Reporting Requirements

Commenters urge IDEM to consider a facility's full history of noncompliance in connection with all permit amendments, modifications, or renewals. Noncompliance is particularly relevant where, as here, the request for a modification arose, at least in part, from enforcement of a permit violation. Commenters acknowledge that revising the permit at this juncture to reflect the facility's history of noncompliance may be outside the scope of the modification, but -- given US Steel's extensive history of noncompliance -- we recommend that IDEM impose additional limits and reporting requirements when this permit is considered for renewal in 2026.

Between November 2018 and October 2020, the Facility reported through its Discharge Monitoring Reports ("DMRs") the following violations of effluent limits:

- Annual average mercury exceedances during six months at Outfalls 018 and 019;
- Daily average thermal discharge exceedance in November 2019 at Outfall 035;
- Daily concentration exceedances for oil and grease during three months in 2020 at Outfall 607; and
- Failure to collect and analyze cyanide samples for Outfall 608 during the first quarter of 2020.

The Facility separately reported additional unpermitted or excessive discharges during the same timeframe, including:

- Flood waters from Outfalls 18 and 019 that contained excessive mercury amounts on November 27, 2019;
- QBOP shop air scrubber recycle system waters in an unknown volume through Outfall 021 on February 5, 2020;
- Environmental Treatment Facility wastewaters that were insufficiently treated, particularly for benzene, through Outfall 015 on December 19, 2019;

- BOP shop wastewaters with excessive solids through Outfalls 028 and 030 on July 30, 2020;
- A visible sheen at Outfall 032 on March 17, 2021; and
- Of particular relevance here, wastewater discharged from GW-10 directly into the Grand Calumet River on June 25, 2018, and May 23, 2020.

To resolve the violations that occurred between 2018 and 2021, IDEM and US Steel entered into an Agreed Order on November 16, 2021.[8] The Agreed Order required US Steel to, among other things, develop and submit a Compliance Plan for approval by IDEM to prevent future violations. Commenters were unable to locate the Compliance Plan or any subsequent evaluation of such plan in IDEM's Virtual File Cabinet. However, we are aware that US Steel sought in 2021, as part of its appeal of IDEM's renewed permit, to avoid being subject to enforcement for future violations related to GW-10 emergency overflows into the Grand Calumet by arguing that such discharges should be considered to be permitted. Commenters submit that legalizing a discharge because of a permittee's inability to achieve limits is neither protective of the environment nor a good policy position with regard to compliance by the regulated community.

Violations have continued over the past 30 months including:[9]

- TSS exceedances at Outfall 603 in the 3rd Quarter of 2022 and at Outfall 001 in December 2022;
- Chronic toxicity exceedances at Outfalls 034 and 015 during the 2nd Quarter of 2022 and 3rd Quarter of 2024, respectively;
- Zinc exceedance at internal Outfall 603 in February 2023;
- Unsatisfactory maintenance and a leak in a sanitary sewer line in September 2023; and
- Wastewater discharge from GW-10 directly into the Grand Calumet River on June 5, 2024.

At first glance, these more recent violations may seem minor relative to the ones that occurred between 2018 and 2012. It is unclear, however, whether US Steel's reduced number of violations over the past 30 months is the result of improved operations and treatment or an absence of permit limits and monitoring – as an outcome of the November 16, 2021 IDEM-US Steel Agreed Order. To the extent that the apparent improvements are the result of reduced permit limits or monitoring requirements, they are not appropriate: "[s]urely, a non-compliant source's long history of violations suggests that the permitting authority should monitor it with greater – not less – scrutiny." *New York Public Interest Research Group, Inc. v. Johnson*, 427 F.3d 172, 184 (2d Cir. 2005). Commenters recognize that this modification currently under review is not

[8] The Agreed Order is available in the IDEM Virtual File Cabinet at: https://ecm.idem.in.gov/cs/idcplg?IdcService=GET_FILE&dID=83251179&dDocName=83252984&Rendition=web&allowInterrupt=1&noSaveAs=1.

[9] Most of the violations listed here are taken from IDEM inspection reports and compliance correspondence in its Virtual File Cabinet. Not all of these violations appear in EPA's ECHO database, however. We encourage IDEM to ensure that all instances of noncompliance are being reported to EPA.

typically the time to add new limits and reporting requirements unrelated to the terms being modified, yet we also note that US Steel's current NPDES permit is due to expire in less than two years (on April 30, 2026). Commenters encourage IDEM to impose additional limits upon the discharges at renewal for those pollutants most likely to have exceedances that can impair water quality. In addition, Commenters recommend that IDEM include additional monitoring and reporting requirements to ensure continual compliance with the terms of this NPDES permit.

Commenters urge IDEM to issue a final permit for the Facility that reflects the changes recommended in the above Comments, and we invite discussion as to how the Permit's requirements can be carried out in a way that is environmentally protective, cost-effective, and implementable by industry while, most importantly, achieving the objectives of the CWA to restore and maintain the health of our nation's waters.

Thank you again for your work on the proposed permit modifications for US Steel – Gary Works, and for considering our comments.

Sincerely,

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