October 15, 2009
U. S. Environmental Protection Agency, Region 5
Response to Comments on EPA's Objection to Draft NPDES Permit for U.S. Steel

Introduction

Background:

The U.S. Steel Corporation located in Gary, Indiana, is the largest fully integrated steel mill in the United States, producing over 8 million tons of raw steel per year.

Indiana issued a public notice on a draft U.S. Steel permit on July 4, 2007, and held public meetings on August 1, and September 26, 2007.

On October 1, 2007, EPA notified Indiana Department of Environmental Management (IDEM) that it had objections to certain parts of the permit and that those objections must be resolved before the permit could be issued. After further review by EPA, a second letter was sent to IDEM on October 16, 2007, objecting to other aspects of the permit.

Due to the high level of public interest in this matter, EPA provided the public with an opportunity to provide written public comments on the objections between November 9, 2007, and December 28, 2007. EPA also held a public hearing on December 11, 2007, in Gary, Indiana.

Approximately 400 people attended the hearing, including local residents, representatives of environmental groups, business leaders, union workers and government officials. More than 300 comments were submitted to EPA. This document sets forth EPA's responses to those comments. Copies of all of the comments that were submitted during the public comment period, and this response to comments document, will be posted on EPA's website at http://www.epa.gov/Region5/sites/ussteel/index.htm. EPA notes that, although the purpose of the comment period and hearing were to obtain comments on EPA's objections, EPA also accepted comments beyond the scope of EPA's objections. This document responds to all comments that were submitted.

On October 14, 2009, IDEM public noticed a revised draft permit for U.S. Steel. EPA intends to inform IDEM by letter that it is withdrawing its objections due to the changes that IDEM made to the draft permit in response to EPA's objections and the fact that IDEM is providing the public with a new opportunity to review and comment on the draft permit. EPA also intends to inform IDEM that, in accordance with 40 CFR 123.44(j), following the close of its public comment period and if there is significant public comment on the October 14, 2009, draft permit, IDEM will need to prepare and submit for EPA review the proposed U.S. Steel permit before final issuance by IDEM, as well as copies of all public comments IDEM received on the October 14, 2009, draft permit.

EPA's letter to IDEM withdrawing its objections and an explanation for EPA's withdrawal of its objections will be posted at http://www.epa.gov/Region5/sites/ussteel/index.htm.

SECTION 1: Clean Water Act Overview

The following is a general overview of the Clean Water Act's National Pollutant Discharge Elimination System (NPDES) permitting requirements and other related requirements. This overview is provided to assist readers in understanding the responses to comments that are set forth in Section 2 of this document.

1.A. Clean Water Act Requirements Pertinent to the U.S. Steel Permit

National Pollutant Discharge Elimination System (NPDES) Permit Program

Under the Clean Water Act, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain an NPDES permit. NPDES permits cover a myriad of activities and different types of discharges, including discharges from industrial facilities. NPDES permits must contain conditions consistent with the Clean Water Act and federal regulations. Permittees must comply with those conditions to be in compliance with the Clean Water Act.

State Adopted Water Quality Standards

The Clean Water Act requires every state to develop water quality standards applicable to all water bodies or segments of water bodies that lie within the state. EPA reviews and approves or disapproves state-adopted water quality standards.

Water quality standards consist of (1) designated "uses" for each water body in the state, (2) "criteria" or maximum concentrations for particular pollutants to ensure achievement and maintenance of those designated uses, and (3) an "antidegradation" policy to protect existing uses and high-quality waters. In establishing designated uses, states must consider the use and value of state waters for public water supplies, propagation of fish and wildlife, recreation, agriculture and industrial purposes, and navigation. As described below in Section 1.F of this document, water quality standards are implemented through NPDES permits for point source discharges through establishment of water quality based effluent limitations.

Water Quality Guidance for the Great Lakes System

In 1990, Congress amended Section 118 of the Clean Water Act to require EPA to adopt a special set of requirements for the Great Lakes System. Specifically, Congress required EPA to adopt water quality standards, antidegradation policies and procedures for implementing water quality standards in NPDES permits for discharges into the Great Lakes System. These requirements, which are called the "Water Quality Guidance for the Great Lakes System," are set forth as federal regulations at 40 CFR Part 132. Those

requirements, along with state-specific requirements that Indiana adopted and EPA approved in 2000 to incorporate those requirements, apply to discharges such as those from U.S. Steel into the Indiana portion of the Great Lakes System.

1.B. Implementation of the NPDES Program in Indiana

EPA is authorized under the Clean Water Act to directly implement the NPDES Program. EPA, however, may approve states, territories, or tribes to implement all or parts of the NPDES Program. Indiana received EPA approval to implement the NPDES Program on January 1, 1975. IDEM is responsible for issuing all NPDES permits within Indiana.

IDEM is responsible for receiving permit applications from point source dischargers, denying the application or proceeding to draft a permit in accordance the Clean Water Act and state regulations, providing opportunities for public participation, issuing permits, reviewing monitoring reports, conducting inspections, and enforcing against violations of permit conditions.

Upon granting a state approval to issue NPDES permits, EPA ceases issuing permits in that state. However, EPA retains the right to review permits issued by the state, and can formally object to state permits that conflict with federal requirements. A state may not issue a permit over an EPA objection. If the state does not sufficiently address the objection points and EPA does not withdraw its objection, then EPA may issue the permit instead of the state.

In addition, EPA provides oversight of states' NPDES programs. This includes reviewing states' legal authorities (statutes and regulations), and the quality of the permits that are issued. EPA develops national guidance and policy to be used by states in the issuance of permits. EPA also provides assistance to states in developing specialized program areas such as industrial pretreatment, biosolids, and storm water.

1.C. Technology Based Effluent Limits

In the development of a permit, a permit writer must consider limits based on the technology available to treat the pollutants. These limitations are called "technology based effluent limits." The intent of technology based effluent limits is to require a minimum level of treatment for industrial/municipal point sources based on currently available treatment technologies while allowing the discharger to use any available control technique to meet the limits. Where necessary, more restrictive limitations, called "water quality based effluent limitations," may be included in NPDES permits to protect water quality. Water quality based effluent limitations are described more fully below in Section I.D.

For industrial facilities, the Clean Water Act requires EPA to develop national effluent guidelines that represent the following:

- Best conventional pollutant control technology (BCT) for conventional pollutants and applicable to existing dischargers.
- Best practicable control technology currently available (BPT) for conventional, toxic and nonconventional pollutants and applicable to existing dischargers.
- Best available technology economically achievable (BAT) for toxic and nonconventional pollutants and applicable to existing dischargers
- New source performance standards (NSPS) for all pollutants and applicable to new sources.

To date, EPA has established guidelines and standards for more than 50 different industrial categories (including iron and steel making operations). Requirements consistent with all effluent guidelines applicable to a particular facility must be included in the facility's NPDES permit. Where national effluent guidelines have not been developed, the permit writer is to use the same performance-based approach used to develop the guidelines based on the permit writer's best professional judgment, taking into account all reasonably available and pertinent data or information.

1.D. Water Quality-Based Effluent Limitations

Permit writers must consider the potential impact of every proposed surface water discharge on the quality of the receiving water. If, after technology based limits are applied, a discharge will have the 'reasonable potential' to cause, or contribute to causing an excursion above the water quality criteria contained in a state's water quality standards, the permit must include water quality based effluent limitations or "WQBELs" necessary to attain those water quality standards.

1.E. Whole Effluent Toxicity (WET)

Whole Effluent Toxicity or "WET" is a measurement of the integrated toxicity of effluents to organisms. This parameter characterizes the synergistic effects caused by interactions between toxic parameters in the effluent and with the effluent matrix itself. WET testing also accounts for the effect of a discharge on aquatic life due to unknown or unmeasured pollutant parameters in the effluent.

WET can be quantified and is subject to the reasonable potential analysis and water quality-based effluent limit derivations. Reasonable potential is determined for discharges into the Great Lakes System using a worst-case effluent value for WET based on effluent maxima, variability and available dilution. The result of the reasonable potential analysis is compared to the appropriate water quality criteria. If it is determined that the effluent has the reasonable potential to cause or contribute to toxicity in the receiving waters, then effluent limits for WET must be imposed. Indiana promulgated specific water quality criteria for WET at 327 IAC 5-2-11.4(b)(2)(A) of 0.3 toxicity units for acute exposures (TUa) and 1.0 for chronic exposures (TUc).

1.F. Antidegradation

In addition to use classifications and water quality criteria, state water quality standards include an antidegradation policy which must be consistent with EPA's antidegradation regulations (40 CFR §131.12) and which identifies the methods the state will use to implement the policy. Where existing water quality exceeds that needed to protect designated uses of a receiving stream, an NPDES permit cannot authorize the discharge of pollutants that would lower water quality except in conformance with a state's antidegradation policy and procedures.

1.G. Antibacksliding

Antibacksliding, in the context of the Clean Water Act NPDES permitting program, refers to a general prohibition on the relaxation of certain effluent limitations in reissued permits, subject to important exceptions set forth in Section 303(d)(4) and 402(o)(2) of the Clean Water Act and 40 CFR 122.44(l)(1). The following excerpt from page 44 of EPA's March 1995 Supplemental Information Document for the Water Quality Guidance for the Great Lakes System is a useful summary of the requirements of Sections 303(d)(4) and 402(o)(2):

> Section 402(o)(1) provides that backsliding from [water quality based effluent limitations or "WQBELs"] is prohibited except in compliance with section 303(d)(4). Section 303(d)(4) has two parts that must be considered, along with an identification requirement: paragraph (A) which applies to "non-attainment waters" and paragraph (B) which applies to "attainment waters."
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> Section 303(d)(4)(A) allows establishment of a less stringent WQBEL when the receiving water has been identified under section 303(d)(1)(A) and where applicable water quality standards are not being met (i.e., a "non-attainment water"), if the permittee meets two conditions. First, a permittee may seek a less stringent effluent limitation under section 303(d)(4)(A) only if the existing permit limitation was based on a total maximum daily load (TMDL) or other wasteload allocation (WLA) established under section 303. Second, relaxation of a WQBEL is only allowed if attainment of water quality standards is ensured, or if the designated use which is not being attained is removed in accordance with 40 CFR part 131.
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> Section 303(d)(4)(B) applies to waters where the water quality equals or exceeds levels necessary to protect the designated use, or to otherwise meet applicable water quality standards (i.e., an "attainment water"). Under section 303(d)(4)(B), permit limitations based on a section 303 TMDL/WLA, on any water quality standards established under section 303, or on any other permit standard may be relaxed only where this is consistent with a State's antidegradation policy (see 40 CFR 131.12).
>
> Section 402(o)(2) also outlines exceptions to the general prohibition against backsliding from WQBELs. These exceptions are independent of the section 303(d)(4) exception discussed above and are also applicable to the

backsliding of BPJ limits to reflect subsequently promulgated less stringent guidelines.

Regardless of whether any of the backsliding exceptions are applicable and met, section 402(o)(3) acts as a floor and restricts the extent to which WQBELs (and BPJ limits) may be relaxed. Specifically, section 402(o)(3) prohibits the relaxation of such permit limitations below applicable technology-based effluent limitation guidelines in effect at the time the permit is renewed, reissued or modified. In addition, it prohibits the relaxation of limits if such relaxation would result in a violation of applicable water quality standards, which include antidegradation requirements.

1.H. Compliance Schedules

Section 502(17) of the Clean Water Act, 33 U.S.C. § 1376(17), defines a schedule of compliance as "a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitation, prohibition, or standard." The purpose of a compliance schedule is to give an existing discharger time to make required changes in the facilities or operations, in order to comply with a new or more stringent water quality based permit limitation. There are a number of restrictions imposed by the Clean Water Act and 40 CFR 122.47 on the use of compliance schedules, including that they may only be used where appropriate, must require compliance as soon as possible, and must include interim and final requirements.

1.I. Intake Cooling Water Structure Requirements

Section 316(b) of the Clean Water Act requires that the location, design, construction and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact. EPA has identified impingement and entrainment as appropriate primary measures of the adverse environmental impact, but permit writers may consider other measures of adverse environmental impact in the assessment. Impingement means the entrapment of all life stages of fish and shellfish on the outer part of an intake structure or against a screening device during periods of intake water withdrawal. Entrainment means the incorporation of all life stages of fish and shellfish with intake water entering and passing through a cooling water intake structure and into a cooling water system.

EPA has promulgated regulations in 40 CFR Part 125 to implement Section 316(b) in NPDES permits. These regulations require minimization of adverse environmental impacts by implementing appropriate controls such as flow reduction, velocity reduction, or impingement and entrainment reductions through application of the best technology available. EPA developed these regulations in three phases that contain specific requirements for certain new and existing facilities. In addition, 40 CFR 125.90(b), EPA requires the permitting authority to develop Section 316(b) conditions on a best professional judgment basis for any facility not specifically covered under the three phases. Dischargers must meet either the specific requirements of the phase applicable to

their type of facility or meet the conditions developed under best professional judgment by the permitting authority.

1. J. Storm Water Requirements

Facilities that discharge storm water associated with industrial activity as defined at 40 CFR 122.26(b)(14) are required to either apply for an NPDES storm water permit or include in their permit application information pertaining to storm water sufficient to allow the permitting authority to include storm water requirements into the facility's NPDES wastewater permit.

Storm water permits typically require the permittee to meet the effluent limitations in the permit, develop a storm water pollution prevention plan which contains descriptions of the measures and controls the permittee will implement to meet the effluent limitations, and perform monitoring and inspection.

Storm water effluent limitations can be numeric or in the form of best management practices, which are control measures used by the permittee to eliminate or reduce the exposure of pollutants to rain, snow, snowmelt and the runoff generated from these events. The storm water pollution prevention plan typically requires the organization of a pollutant prevention team, development of a site map, including the location of potential pollutant sources and drainage patterns, and the description of the measures used to limit the exposure of pollutants to storm water or to treat polluted storm prior to discharging it to local waterways.

1.K. Monitoring, Recordkeeping and Reporting Requirements

40 CFR 122.48 requires that NPDES permits include monitoring, recordkeeping requirements and reporting conditions. Monitoring requirements specify the required self-monitoring as well the type, intervals, frequency. Analytical test methods established at 40 CFR Part 136 are specified for each parameter. Finally, 40 CFR 122.41(k)(4) requires permittees to provide self-monitoring results to the permitting authority in accordance with the reporting conditions set forth in the permit. These results can be reviewed in evaluating the permittee's compliance with permit effluent limits.

SECTION 2: Response to Public Comments on EPA's Objection to the U.S. Steel permit

This section provides a summary of comments received during the public comment period, followed by EPA's response to those comments.

2.A Protecting Lake Michigan

Comment

EPA received several comments generally objecting to U.S. Steel's request to discharge potentially harmful pollutants, including toxic chemicals and heavy metals, into the Grand Calumet River and Lake Michigan because people drink water and eat fish from the Great Lakes.

EPA Response

The water quality criteria in Indiana's water quality standards for the Grand Calumet River and Lake Michigan are designed to be protective of human health, including being protective against unacceptable health effects from ingesting pollutants from drinking water and fish consumption; protective of aquatic life; and protective of wildlife. EPA believes that IDEM's October 14, 2009, draft permit contains appropriate water quality based effluent limits for all pollutants that are being discharged at levels that cause, or have the reasonable potential to cause, or contribute to exceedances of those criteria.

Comment

A number of comments raised general concerns regarding the U.S. Steel permit. Some urged EPA not to compromise the quality of Lake Michigan. Some felt the permit was a step backward in the protection of Clean Water, or that the contaminant levels were too high. Some urged EPA to require tougher restrictions in the permit, to eliminate dumping to Lake Michigan, to allow no increase pollutants to the lake, or to categorically object to the permit. Some insisted that U.S. Steel should be a state-of-the-art facility.

EPA Response

In reviewing NPDES permits, EPA evaluates whether the permit meets the requirements of the Clean Water Act and EPA's implementing regulations at 40 CFR Parts 122-125, and 132. *See* 40 CFR 123.44. Although the July 4, 2007, draft permit failed to meet those requirements with respect to the matters raised in EPA's objection letters, IDEM appears to have corrected those identified problems, and nothing in the general comments summarized above indicates that the October 14, 2009, draft permit fails to meet the requirements of the Clean Water Act or EPA's implementing regulations.

Comment

One comment stated that no comprehensive analysis exists for the two dozen individual discharge points authorized by the permit, and that the permit's total aggregate impact on the Great Lakes is nearly impossible to assess, leaving unclear the question of whether or not water quality is being protected.

Additional commenters stated that IDEM needs to consider the cumulative impact of the discharge in light of other discharges in the area, and needs to consider multi-media pollutants.

EPA Response

IDEM evaluated the cumulative impacts of pollutant loadings from each of the permitted discharge outfalls during the process that calculates the water quality based effluent limits in the October 14, 2009, draft permit. IDEM's process is consistent with EPA's nationally-applicable requirements at 40 CFR 122.44(d) and EPA's Great Lakes specific requirements in Procedure 5 of Appendix F to 40 CFR Part 132. Specifically, for each outfall, IDEM used conservative estimates of effluent quality and conservative estimates of background levels of the limited pollutants that included other permitted discharge outfalls and nonpoint sources. IDEM also applied conservative assumptions regarding the downstream fate of each limited pollutant. This process ensures that the water quality based effluent limitations in the permit, both on an outfall-by-outfall basis as well as on a facility-wide basis, meet the water quality based requirements of the Clean Water Act.

2.B IDEM's Role in the U.S. Steel NPDES Permitting Process

Comment

A commenter asked that IDEM be commended on their efforts in recent years to reduce the backlog of NPDES permits, noting the degree of complexity and the time required to issue permits.

EPA Response

IDEM has made the review and reissuing of expired permits and priority permits a top priority, and so has reduced its backlog of expired permits to a low level, surpassing national targets and IDEM's commitments for three consecutive years, and now has one of the lowest backlog rates in the country. In February 2008, EPA awarded IDEM a gold award for meeting goals for overall reduction of expired permits and priority permit issuance. IDEM has acknowledged that there remain a number of expired permits for industrial facilities in the Lake Michigan basin (including U.S. Steel), and that it is very important to reissue these permits.

Comment

A commenter stated that it would be helpful for the public to know what changes IDEM proposes to make to the permit before the EPA public hearing.

EPA Response

IDEM had not determined the changes that it intended to make to the permit at the time of the hearing. On October 14, 2009, IDEM public noticed a new draft permit, with numerous changes to address the issues raised in EPA's objection letters.

Comment

One commenter expressed concern that many regulations are subject to interpretation, and may be interpreted in a manner not consistent with the overall purpose, policy, goal and intention of its drafters of the regulations.

EPA Response

The public comment period on the October 14, 2009, draft permit provides the public an opportunity to raise comments and concerns they might have on the manner in which specific regulations are being interpreted in the context of the U.S. Steel permit. EPA's oversight will also help to ensure that the permit is consistent with federal requirements.

Comment

EPA received numerous comments asking that EPA urge IDEM to make the permitting process easier to understand by providing more outreach and information early in the process so that the public can participate.

EPA Response

EPA hopes that the public has gained a better understanding of the permitting process as a result of the public comment/public hearing/public outreach process that has occurred on the U.S. Steel permit in the past sixteen months. In addition, IDEM is soliciting public comment on the October 14, 2009, draft permit, and intends to hold a public hearing on the draft permit on November 18, 2009.

Comment

One commenter asked whether IDEM would provide a written response to the public comments received on the U.S. Steel NPDES permit before or during the EPA public hearing on December 11, 2007.

EPA Response

IDEM did not complete a written response to the comments it had received on the proposed U.S. Steel permit prior to EPA's public hearing.

Comment

One commenter at the hearing requested that EPA direct IDEM and U.S. Steel to forward material safety data sheets to him.

EPA Response

Following the hearing, EPA forwarded the requested information directly to the commenter.

2.C EPA's Role in the U.S. Steel Permitting Process

Comment

A commenter stated that EPA attempted to deceive the public by not posting accurate and up-to-date information on its website.

EPA Response

In an effort to try to be as transparent as possible, EPA established a website dedicated to the U.S. Steel permit objection http://www.epa.gov/region5/sites/ussteel/index.htm.

The following is a list of materials that EPA made available. We believe we posted accurate and up-to-date information on the U.S. Steel permit objection.

News Releases

- EPA hearing on draft U.S. Steel Permit set for Dec. 11 in Gary, November 8, 2007
- EPA to hold public hearing on U.S. Steel draft permit November 1, 2007

Fact Sheets

- EPA Lists Objections to Steel Plant Water Permit, December, 2007
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Correspondence

- EPA's Objection Letters on proposed permit for U.S. Steel Gary Works
- Response to Indiana Department of Environmental Management (IDEM) Draft Permit for U.S. Steel Gary Works, October 16, 2007 (PDF)
- Response to IDEM Draft Permit for U.S. Steel Gary Works, October 1, 2007

Public Participation

- Alliance for the Great Lakes comments on the NPDES permit no. IN0000281, October 1, 2007
- Online Comments to the U.S. Steel Permit
- Mailed, Faxed or Other Comment Submissions, Part 1
- Mailed, Faxed or Other Comment Submissions, Part 2

- Natural Resources Defense Council Environmental Law and Policy Center: Comments on the IDEM 2007 Draft NPDES Permit for U.S. Steel - Gary, IN, Permit No. IN 0000281
- Transcript of public hearing

Comment:

A commenter requested that IDEM transmit the complete record of the permit proceedings before the state for EPA's review.

EPA Response

EPA received a substantial amount of information from IDEM on the draft U.S. Steel permit, but does not believe that it needed a complete record of the permit proceedings.

2.D Technology-Based Effluent Limits

Comment

Zinc, Copper, and Lead effluent limits at internal outfall 604
A commenter stated that the 2007 draft permit did not contain technology based effluent limits (technology based effluent limitation) for Zinc, Copper & Lead at internal outfall 604 that are consistent with Attachment III of the 2007 draft permit fact sheet.

EPA Response

EPA raised a specific objection on this point. IDEM resolved this concern by analyzing the most recent production data and recalculating the discharge limitations in the October 14, 2009, draft permit and including appropriate technology-based limitations for outfall 604 for a number of parameters, including zinc and lead. EPA notes that in all cases the mass-based limits have been reduced as a result. In the case of copper, IDEM added a new water quality-based mass limit at external Outfall 034. Because this limit is more protective than the technology-based limit calculated for internal Outfall 604, and because all effluent from Outfall 604 leads to external Outfall 034, IDEM has proposed to delete the limit at Outfall 604. EPA is satisfied that the objection is resolved.

Comment

Oil and Grease
A number of commenters expressed concern that the oil and grease monthly average effluent limits will increase from 1500 lbs/day to 1850 1b/day at outfall 034. The commenters felt this would be impermissible backsliding.

Some commenters also questioned whether the calculations used to determine the effluent limits for the proposed permit under the bubble approach include any discharges related to cokemaking or sintering operations.

A commenter stated that technology exists to eliminate as much as 80 percent or more pollution from the basic integrated iron and steel making process.

EPA Response

In October 2002, EPA promulgated an amendment to the Iron and Steel Effluent Limit Guidelines (ELG). This amendment, among other things, changed the scope of the "water bubble" provisions to exclude combining of Oil and Grease loadings for separate outfalls. This action was subsequently successfully challenged. As a result, in December 2005, EPA published a final rule restoring the provision that allows the use of alternative Oil and Grease limits in NPDES permits. The provision allows flexibility for iron and steel facilities to trade identical pollutants within a mill that discharges into surface waters at more than one location. Such facilities are subject to a combined mass limitation for the grouped outfalls rather than subject to mass limitations for each individual outfall. The rule prohibits establishing alternative effluent limits for cokemaking and sintering process wastewater unless they meet the applicable effluent limitations standards.

Consistent with the "water bubble" provisions of the December 2005 final rule, the 2007 draft permit reallocated 350 lb/day of Oil and Grease from outfall 030 to outfall 034 as a monthly average. Similarly, under the October 14, 2009, draft permit, the total quantity of Oil and Grease discharged from the combined outfalls would not be allowed to exceed the previous allowed mass limits. In addition, neither the cokemaking process nor sintering process wastewater would discharge through outfalls 030 and 034. EPA believes that the October 14, 2009, draft permit is written in conformance with the federal ELG and, because it does not authorize an increase in Oil and Grease loadings from the facility as a whole, does not constitute impermissible backsliding.

In response to the comment that technology exists to eliminate 80 percent or more of the pollution from the basic integrated iron and steel making process, EPA notes that permit limits are established based on national effluent guidelines or, where these do not exist, best professional judgment of the permit writer. Where these limits are not sufficient to protect water quality standards, the permit must include water quality based effluent limits. EPA believes that IDEM has included appropriate technology-based, and water quality-based limits in the October 14, 2009, draft permit for U.S. Steel.

Comment

<u>Total Suspended Solids</u>
A commenter stated that the draft permit establishes a monthly average limit for Total Suspended Solids (TSS) which exceeds the technology based effluent limitation by 30 lb/day at internal outfall 604.

EPA Response

EPA agrees that there was an inconsistency between the 2007 draft permit fact sheet and 2007 draft permit for the TSS monthly average mass limits at internal outfall 604. The 2007 draft permit included a limit of 3269 lb/day whereas page 17 of the 2007 draft permit fact sheet stated that the limit should be 3239lb/day as a monthly average. The TSS mass limits for internal outfall 604 were recalculated based on new production data for the October 14, 2009, draft permit and the new limits are 2901 lbs/day as monthly average, and 6455 lbs/day as daily maximum.

Comment

Total Lead
A number of comments expressed the concern that the draft permit does not include a technology based effluent limitation for lead at internal outfall 603, and instead only includes monitoring and reporting requirements for lead.

EPA Response

As described in the fact sheet for the October 14, 2009, draft permit, technology based effluent limitations for lead at internal outfall 603 were calculated to be 7.92 lbs/day as monthly average mass limitation, and 24.23 lbs/day as a daily maximum mass limitation. IDEM calculated more stringent water quality based limits of 6.1 lbs/day as a monthly average, and 12 lbs/day as daily maximum at the external outfall 028/030. The more stringent lead limits at the external outfall 028/030 satisfy the technology based requirements of the Clean Water Act, thus the permit does not include a limit on the internal outfall.

2.E Water Quality-Based Effluent Limits

Comment

Absence of Water Quality Based Effluent Limitations for Certain Parameters
A number of commenters raised concerns about the following specific parameters for which water quality based effluent limits were not included in the draft permit: ammonia, metals, cyanide, freeze protection chemicals and parameters identified in the Toxic Release Inventory (TRI). Some commenters argued that limits should not be eliminated based on historical data and that limits are necessary for every parameter found in the effluent. Commenters were concerned that, in the absence of limits, U.S. Steel would be authorized to discharge unlimited amounts of parameters found in their effluent.

EPA Response

EPA regulations require that permits include water quality based effluent limits if, after technology based limits are applied, a discharge will have the "reasonable potential" to cause or contribute to causing to an excursion above the water quality criteria contained in a state's water quality standards. The "reasonable potential" analysis is a procedure by

which the concentration of pollutant parameters in an effluent is compared to water quality standards. The effluent quality is extrapolated to a rigorous worst case concentration based on existing effluent variability and maximum documented effluent concentration. Site-specific information such as information regarding background flow rate and pollutant concentrations, and effluent flow rate is also considered in order to add additional confidence in the results. Where the worst case concentration would exceed or contribute to exceedences of water quality standards, water quality based effluent limitations are calculated and placed into permits as enforceable effluent limits.

In its permit application, U.S. Steel was required to identify all of its manufacturing processes, operations, waste streams and treatment facilities associated with the pollutants that it seeking authorization to discharge. U.S. Steel was also required to provide monitoring information showing the pollutants levels in its discharges resulting from processes, operations and treatment provided data for over 126 parameters for each affected outfall, including additional parameters where it had evidence or reasonable belief would be in the discharges. These data were reviewed in accordance with the reasonable potential procedures in IDEM's rules at 327 IAC 5-2-11.6. The water quality criteria against which the results of the reasonable potential analysis were compared are found at 327 IAC 2-1.5. IDEM then calculated water quality based effluent limitations for those parameters for which it determined there exists the reasonable potential for the discharge to cause or contribute to exceedences of water quality standards. Where no water quality standards exist for a particular parameter, the narrative water quality criteria at 327 IAC 2-1.5-8(b)(1)(E) were interpreted against the results of the reasonable potential analysis. Because of the conservative nature of the reasonable potential analysis process and the water quality based effluent limitation derivation methodology, if a parameter was determined not to be in the effluent at concentrations that could cause or contribute to exceedences of water quality standards, EPA believes effluent limits are not required for that pollutant. EPA believes that the October 14, 2009, draft permit for U.S. Steel includes all appropriate water quality based effluent limitations.

In performing the reasonable potential analysis the effluent data are reviewed to ensure only data that are reflective of effluent quality are used in the analysis. All available data should be used unless there is a clear indication that the data are not representative. For example, older data may not be representative if they precede changes in production or waste treatment processes that would affect effluent quality. On the other hand, older data should not be excluded simply because of their age, if there is nothing to indicate that such data are not representative.

The TRI data were not directly considered by EPA in its review of the draft permit. TRI data are annual summaries of expected emissions of parameters and provide no indication of expected effluent quality. TRI data are also summarized by parameters that are defined in ways often inconsistent with how water quality criteria are expressed, or with how data are gathered for effluent quality and receiving stream quality. For example, some parameters are reported in TRI as mixtures of specific chemicals for which water quality criteria are not derived, and these mixtures may contain chemicals not likely to be present in the U.S. Steel discharges. The toxicity of such mixtures in the aquatic

environment cannot be readily determined, nor would the toxicity be consistently known as the mixture composition varies.

The October 14, 2009, draft permit contains additional limits on whole effluent toxicity (WET). This parameter, which measures the toxicity of the complete effluent matrix, complements chemical-specific water quality based effluent limitations. WET measures the synergistic effects on toxicity between the different parameters and any effect that the effluent itself may have on them. WET limits are intended to ensure effluents are not toxic due to unknown or unquantified parameters in the effluent, or any interactions that may occur between the effluent constituents.

In addition, Part I.B of the October 14, 2009, draft permit contains the following narrative effluent limitations that apply in addition to the pollutant-specific numeric limitations, and so provide an additional safeguard addressing the concerns expressed by this comment:

B. NARRATIVE WATER QUALITY STANDARDS

At all times the discharge from any and all point sources specified within this permit shall not cause receiving waters:

1. including the mixing zone, to contain substances, materials, floating debris, oil, scum, or other pollutants:

    a. that will settle to form putrescent or otherwise objectionable deposits;

    b. that are in amounts sufficient to be unsightly or deleterious;

    c. that produce color, visible oil sheen, odor, or other conditions in such degree as to create a nuisance;

    d. which are in amounts sufficient to be acutely toxic to , or to otherwise severely injure or kill aquatic life, other animals, plants, or humans;

    e. which are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such a degree as to create a nuisance, be unsightly, or otherwise impair the designated uses.

2. outside the mixing zone, to contain substances in concentrations which on the basis of available scientific data are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants.

Finally, as noted above, U.S. Steel identified all of its manufacturing processes, operations, waste streams and treatment facilities in its permit application; as well as monitoring information representative of the pollutant levels in discharges from those processes, operations, waste streams and treatment facilities. Given the conservative nature of the reasonable potential "worst case" effluent quality extrapolation described above, it is extremely unlikely that U.S. Steel will discharge pollutants above the levels that were used in determining reasonable potential unless U.S. Steel changes the manufacturing processes, operations, waste streams and treatment facilities identified in the permit application; and discharges associated with manufacturing processes, operations, waste streams and treatment facilities that were not identified in the permit application would not be authorized by the permit. *See* EPA's July 1, 1994 "Policy Statement on Scope of Discharge Authorization and Shield Associated with NPDES Permits," which can be viewed at www.epa.gov/compliance/resources/policies/civil/cwa/shield.pdf.

Comment

5-day Carbonaceous Oxygen Demand ($CBOD_{5)}$
One of EPA's grounds for objecting to the U.S. Steel permit was that the draft permit did not contain appropriate monthly average water quality based concentration limits for carbonaceous oxygen demand ($CBOD_5$) at outfall 034, in accordance with Attachment IV, Table 10 to the fact sheet for the 2007 draft permit. EPA received several comments in support of this objection.

EPA Response

EPA's October 2007 letters specifically objected because the 2007 U.S. Steel draft permit did not contain appropriate monthly average water quality based concentration limits for carbonaceous oxygen demand ($CBOD_5$) at outfall 034, in accordance with Table 10 found in Attachment IV to the fact sheet for the 2007 draft permit.

Table 10 in Attachment IV indicated that monthly average concentration limits are necessary for $CBOD_5$. In the fact sheet for the October 14, 2009, draft permit, IDEM has provided information and explanation as to why $CBOD_5$ mass limitations are appropriate for this permit, and why concentration limits for $CBOD_5$ are not needed.

In the 2007 draft permit fact sheet, Attachment IV, Table 10, IDEM applied procedures for calculating concentration limits that are intended to apply only to individual toxic pollutants, and are not intended to be used for pollutants that impact instream dissolved oxygen, such as $CBOD_5$. IDEM has clarified that the mass limitations for $CBOD_5$ are based on a wasteload allocation (WLA) for dissolved oxygen developed for the Grand Calumet River and Indiana Harbor Canal in 1992. This WLA determined the mass of deoxygenating waste that could be discharged and still meet water quality criteria for dissolved oxygen. This mass was divided among all sources of deoxygenating waste, including U.S. Steel, and mass limits were included in the U.S. Steel permit.

EPA is satisfied that inclusion of the mass limit based on the WLA will be protective of the dissolved oxygen water quality criteria, and so monthly average water quality based concentration limits for $CBOD_5$ are not necessary at outfall 034.

Comment

Need for Water Quality Based Effluent Limitations Where Limitations on Internal Outfalls are Not Sufficient to Protect Water Quality
Some commenters requested that EPA ensure the mass limitations set at internal outfalls be no less stringent than the limitations set at associated external outfalls. In some cases where the permit did not include limitations at external outfalls, commenters felt that limitations at internal outfalls were not protective of water quality. In particular concerns were expressed regarding limitations for ammonia and free cyanide. For cyanide, the commenters felt that if all allowable loading of total cyanide at internal outfall 501 was in the form of free cyanide, this would not be protective of water quality when discharged through external outfall 005.

EPA Response

Ammonia limits: In the October 14, 2009, draft permit, IDEM has made revisions intended to resolve concerns related to ammonia discharges at outfall 005. First the loading limit for internal outfall 501 has been reduced. As a result, process wastewaters which discharge through external outfall 005 must first comply with the loading limit at internal outfall 501. This limit represents a reduction of approximately 87% compared with the previously issued permit, and is fully protective of water quality. IDEM's reasonable potential analysis indicates that the discharge from outfall 005, even if it occurs at the maximum loading rate allowed by the loading limits on internal outfall 501, does not have the reasonable potential to cause or contribute to an exceedance of water quality standards for ammonia. Consequently, there is no need for a water quality based effluent for ammonia for external outfall 005. As a result, the ammonia limit at outfall 005 has been removed.

Free cyanide limits: IDEM has included appropriate water quality based effluent limitations for free cyanide for discharges from outfall 005 that are based upon the site-specific free cyanide criteria approved by EPA on October 3, 2005, and U.S. Steel is required to comply with those limits in addition to the loading limits imposed on internal outfall 501. Consequently, the permit does not authorize discharges of free cyanide at levels which would not be protective of water quality.

Comment

Water Quality Based Effluent Limitations for Oil and Grease
Some commenters felt that a water quality based effluent limitation should have been imposed for oil and grease.

EPA Response

As noted above, the October 14, 2009, draft permit contains technology-based effluent limitations on oil and grease, and the commenters have not included any information suggesting that those limitations are not adequate to achieve any applicable water quality standards. Moreover, Part I.B of the October 14, 2009, draft permit includes narrative effluent limitations which, among other things, provide that U.S. Steel's discharges shall not cause the receiving stream, including the mixing zone, to contain substances, materials, floating debris, oil, scum, or other pollutants (a) that are in amounts sufficient to be unsightly or deleterious; or (b) that produce color, visible oil sheen, odor, or other conditions in such degree as to create a nuisance. Finally, any potential toxicity associated with oil or grease will be controlled through water quality based effluent limitations for WET. EPA, therefore, does not believe that additional water quality based effluent limitations are necessary for oil and grease.

Comment

Water Quality Based Effluent Limitations for Whole Effluent Toxicity (WET)
Several commenters raised concerns over the adequacy of whole effluent toxicity (WET) limits at several outfalls, particularly outfalls 010, 028/030, and 034. Some commenters noted that limits were missing or were inadequate at these outfalls. In addition, some commenters sought clarification on what the WET limits represented.

EPA received a number of comments in support of EPA's objections regarding WET.

EPA Response

In its letter of October 1, 2007, EPA raised a number of concerns about the absence of WET limitations at outfalls 010 and 028/030, and questioned why the effluent limits for outfall 034 were different from the wasteload allocation published in Attachment IV, Table 15 of the 2007 draft permit fact sheet.

WET at outfall 010: In its letter of October 1, 2007, EPA objected to the absence of WET effluent limitations on discharges from outfall 010 after reviewing available data back to 1994. IDEM has since demonstrated that data prior to 1996 should not be used because of process or treatment changes that occurred subsequent to those sampling events, and therefore these data were no longer representative of the discharge. Eliminating the data prior to 1996 resulted in a finding of no reasonable potential and so water quality based effluent limitations were not considered needed. One additional sample was collected in March 2008. That sample did not show any toxicity under acute or chronic exposures for both species tested. EPA is satisfied that WET limits are not necessary for outfall 010. It is also important to note that, as IDEM discussed in the fact sheet accompanying the October 14, 2009, draft permit, U.S. Steel has indicated that discharge from outfall 010 will be re-routed to outfall 005, where existing effluent limits for WET will remain.

WET at outfall 028/030: These outfalls are combined and treated similarly because they are discharge points from the same lagoon pond and contain the same treated waste water. One of the grounds for EPA's objection was that the draft permit did not contain WET limitations on discharges from outfall 028/030, despite the fact that the 2007 draft permit fact sheet, Attachment IV, Table 15, indicated that a chronic toxicity limitation of 2.8 TU_c was necessary to protect water quality.

In 2008, U.S. Steel performed additional WET testing on discharges from outfall 030, with none of the samples showing toxicity in the discharges. As a result of the fact that a far more robust data set is now available than was available prior to the 2007 draft permit for characterizing the toxicity of discharges from outfall 028/030, IDEM's statistical reasonable potential procedures (as promulgated at 40 CFR 132.6) specified use of a smaller multiplier to project a "worst case" effluent quality. Consequently, after taking into account all of U.S. Steel's WET monitoring data—including sampling data from prior to 1996 all the way up to the 2008 WET data—IDEM's reasonable potential procedures no longer project that there is reasonable potential for U.S. Steel's discharges from outfall 028/030 to cause or contribute to causing exceedances of Indiana's WET criteria; and so there is no need to impose WET effluent limits at this outfall.

WET at outfall 034: EPA objected to the draft permit because it did not include limits consistent with Attachment IV, Table 15 of the 2007 draft permit fact sheet, which indicated a chronic toxicity limitation of 3.1 TU_c is necessary for discharges from outfall 034. The draft permit instead contained a chronic toxicity limitation of 3.3 TU_c.

As explained in the fact sheet accompanying the October 14, 2009, draft permit, the reasonable potential analysis for WET in Table 15 had not been updated since a "State Fast Track" rulemaking was approved by EPA on October 3, 2005, (approving changes to water quality standards) and on March 2, 2006 (approving changes to the NPDES program). The Fast Track rulemaking changed the manner in which wasteload allocations for whole effluent toxicity are translated into permit limits. Instead of being statistically derived, the monthly average is now equal to the chronic wasteload allocation and the daily maximum is now equal to the acute wasteload allocation. Therefore, the prior statistically-derived limit of 3.1 TUc should have been replaced by the wasteload allocation value of 3.6 TUc. EPA is satisfied that the limit of 3.6 TU_c is the appropriate WET limit to include in the permit, and that this objection has been addressed.

Comment

Water Quality Based Effluent Limitations for Temperature
Commenters expressed general concern over the thermal impacts from the U.S. Steel facility. Some commenters expressed the opinion that any increase in the temperature of Lake Michigan as a result of U.S. Steel's discharge be limited to no more than 1 degree Fahrenheit above the background ambient temperature. Commenters also argued that the previous absence of salmonid species in the Grand Calumet is related to levels of historical thermal discharges indicating that thermal limitations were not sufficiently

protective (Thomas Simon and Paul Stewart study titled "Implications of Chinook Salmon Presence on Water Quality Standards in a Great Lakes Area of Concern").

EPA Response

EPA is satisfied that the permit includes limits, appropriately based on the current water quality standards, to protect water quality with respect to the thermal discharges. EPA's objection was to the schedules of compliance to implement those limitations. The comments referenced above indicate a belief that the water quality standards are inappropriate for the receiving waters rather than that limitations are inappropriate. EPA suggests that these matters be raised to the State during the next triennial review of the State's water quality standards.

Comment

Need for Section 316(a) Study
Commenters discussed the need for an updated 316(a) alternate thermal effluent study.

EPA Response

U.S. Steel has not been granted relief from temperature requirements through an alternative effluent limitation under the Section 316(a) of the Clean Water Act. Therefore, the facility is required to comply with the EPA-approved thermal water quality standards contained in 327 IAC 2-1.5-8, Table 8-5 and 8-6, and there is no need for an updated 316(a) study.

Comment

Temperature Monitoring Requirements
Commenters also expressed the opinion that the proposed monitoring requirements in the permit for temperature are insufficient as they do not require continuous monitoring for all outfalls.

EPA Response

EPA believes that the proposed monitoring will adequately assess the thermal discharges from this facility. The permit requires continuous monitoring at the three compliance points in the Grand Calumet River and periodic grab sampling at individual outfalls. The three compliance points are located near the outfalls with the greatest thermal loading but assess the thermal loading from all of the individual outfalls. The grab sampling will serve to better understand how the thermal load measured at the compliance point is allocated between the individual outfalls. All of the outfalls to Lake Michigan will be continuously monitored. EPA believes this level and type of monitoring is sufficient to ensure that the effluent limitations are met and that the water quality is protected in the receiving waters.

Comment

Need for Cooling Towers
Commenters asked whether cooling towers would be required to address the thermal impacts if this were a new facility.

EPA Response

NPDES permits must include all effluent limitations necessary to comply with applicable effluent limitation guidelines (technology-based effluent limitations), and water quality based effluent limitations where reasonable potential exists to cause or contribute to an exceedance of water quality standards. 40 CFR Part 420--Effluent Limitation Guideline for Iron and Steel Manufacturing does not address thermal loading. The permit does specify thermal effluent limitations to comply with thermal water quality standards and EPA believes those are appropriate.

EPA generally does not specify the technologies that a discharger must install to meet these limitations although the effluent limitation guideline development documents often indicate technologies that can provide the necessary treatment. However, a discharger is generally free to install and utilize any process/treatment as long as the discharge will comply with all applicable effluent limitations. For the reasons discussed above, although the permit need not explicitly require cooling towers as a condition of the permit, U.S. Steel may determine that they are necessary to comply with the thermal effluent limitations based upon water quality standards.

2.F Compliance Schedules

Comment

Schedules of Compliance for Water Quality Based Effluent Limitations
EPA received numerous comments supporting its objection to the draft permit for including compliance schedules without adequate justification that (a) a compliance schedule was necessary and appropriate, and (b) the schedule required compliance as soon as possible. Some commenters also asserted that the compliance schedules in the draft permits violated federal requirements because they lacked specific interim requirements. Finally, a number of commenters argued that one of the factors that should be taken into account in establishing compliance schedules in this permit is that a number of the numeric criteria and procedures for including water quality based effluent limitations in NPDES permits were developed in the mid to late 1990s in the context of the Water Quality Guidance for the Great Lakes System at 40 CFR Part 132.

EPA Response

The October 14, 2009, draft permit includes a number of changes to compliance schedules. These changes include shortening and removing schedules for some

pollutants. In other cases, IDEM has provided justification for the original compliance schedules.

EPA believes that IDEM has adequately demonstrated in the fact sheet accompanying the October 14, 2009, draft permit that all of the compliance schedules in the October 14, 2009, draft permit are necessary and appropriate, require compliance as soon as possible, and contain appropriate interim requirements consistent with 40 CFR 122.47 and the requirements of 40 CFR Part 132, Appendix F, Procedure 9. Finally, although EPA agrees with commenters that the date on which water quality standards and NPDES permitting provisions were developed and adopted is relevant in assessing compliance schedules, another relevant factor is the date that those standards and provisions were first applied in developing an NPDES permit for the permittee requesting the compliance schedule.

Summary of changes to schedules of compliance provisions:

Free Cyanide at outfall 005
The compliance schedule for Free Cyanide at outfall 005 was removed from the permit.

For Benzo(a)pyrene (BaP) at outfalls 005 and 010
The schedule for meeting limitations at outfall 005 has been shortened from 5 years to 34 months. Non-contact cooling water currently discharged via outfall 010 will be re-routed into the non-contact cooling waters that are discharged via outfall 005. Outfall 010 will be eliminated within 24 months.

Copper at outfall 018
IDEM has demonstrated that there is no reasonable potential to cause or contribute to exccedances of WQS for copper at outfall 018, so there is no longer a need for a water quality based effluent limitations or compliance schedule for copper for that outfall.

For Copper, Ammonia and Zinc at outfall 040
U.S. Steel will be closing outfall 040 before the effective date of the permit, and so is no longer seeking permit authorization to discharge through that outfall. Consequently, the October 14, 2009, draft permit does not propose to authorize discharges through that outfall, eliminating the need for effluent limits and compliance schedules for outfall 040.

Mercury at outfalls 005, 010, 015, 018, 019, 020, 028/030, and 034
Monitoring data indicate that, at times, U.S. Steel's discharges contain mercury at levels in excess of the mercury water quality based effluent limitations, and that end-of-pipe treatment will be required to reduce mercury to levels below the limitations. Given the current state of knowledge about the applicability and utility of end-of-pipe treatment at a facility such as this one to reduce mercury, it will be necessary for U.S. Steel to undertake the lengthy process set forth in Part I.E of the October 14, 2009, draft permit to select and construct end-of-pipe treatment technologies necessary for U.S. Steel to reduce mercury to levels below the mercury effluent limitations. U.S. Steel has demonstrated that the identification, evaluation, engineering design, procurement, construction, modification of permits to allow construction and start-up of

new end-of-pipe treatment facilities necessary to bring these outfalls into compliance with the final discharge limits will take five (5) years. Based on this information, EPA believes that the 5-year compliance schedule for mercury in the October 14, 2009, draft permit is appropriate and consistent with 40 CFR 122.47.

Whole Effluent Toxicity (WET)

Outfall 034 - IDEM has removed the compliance schedule for WET limitations at outfall 034 in the October 14, 2009, draft permit.

Outfall 005 - U.S. Steel conducted a treatability study of a technology (sand filtration) to reduce Benzo(a)pyrene (BaP) in outfall 501 in order to achieve compliance with BaP limitations at outfall 005. Based on this treatability study, it appears that polyaromatic hydrocarbons found in treated coke plant wastewater, of which BaP is an indicator chemical, are the cause of the toxicity in the effluent discharged from outfall 005. To reduce BaP (and therefore polyaromatic hydrocarbons) in discharges from outfall 005 in sufficient amounts to ensure that U.S. Steel can comply with its WET limitations at outfall 005, U.S. Steel needs to install sand filtration. This should take 34 months to complete, and so IDEM has appropriately included a 34-month compliance schedule for meeting the WET limits at outfall 005, which parallels the 34-month compliance schedule for meeting BaP limitations at outfall 005.

Compliance Schedule for Temperature Limitations

Comment

EPA received numerous comments on its objection to the draft permit for inclusion of schedules of compliance for meeting continuous temperature monitoring. Commenters stated that Indiana regulations require schedules of compliance to be consistent with the requirements for obtaining variances to water quality standards. Commenters also addressed the time that U.S. Steel has had since the prior permit expiration to make changes.

EPA Response

EPA's objection was based upon the fact that IDEM did not provide adequate justification for the inclusion of a compliance schedules for temperature-related conditions in the permit. The fact sheet did not provide information to explain why compliance schedules were appropriate for these permit conditions, or information to demonstrate that the proposed schedule would bring the permittee into compliance as soon as possible.

EPA does not agree with the comment that schedules of compliance must be consistent with the requirements to obtain a variance. Schedules of compliance are used to allow a permittee to come into compliance with an effluent limitation. Variances are used to establish alternative water quality standards for a facility that are then used to calculate appropriate effluent limitations. They are distinct and separate actions with their own implementing regulations.

With regard to the schedule of compliance itself, IDEM has provided within the fact sheet accompanying the October 14, 2009, draft permit a more rigorous explanation of the need for the compliance schedule. EPA is satisfied that the compliance schedule is necessary, appropriate, and that it requires that compliance be achieved as soon as possible.

Schedules of Compliance for Meeting Technology Based Limitations

Comment

A commenter stated that the permit must require immediate compliance with the Federal Effluent Limitation Guideline. (EPA issued its final rule revising the Clean Water Act effluent limitations guidelines and standards, 10/17/2002.)

EPA Response

EPA agrees that permit compliance schedules may not be given for technology based effluent limitations. The October 14, 2009, draft permit does not include any compliance schedules for coming into compliance with any technology based effluent limitations.

2.G Cooling water intake structure controls

Comment

EPA objected to the draft permit, in part, because the permit did not include requirements implementing a best technology available (BTA) determination for cooling water intake structures as required by Section 316(b) of the Clean Water Act and federal regulations at 40 CFR 122.44(b)(3) and 125.90(b). EPA received a number of comments on the objection. Some commenters stated that previous permits had included a BTA determination for this facility, and said that the BTA determination was still sufficient for the facility.

EPA Response

EPA's objection was based upon the absence of both the requirements implementing a BTA determination in the permit and any rationale regarding BTA in the fact sheet. In response to the comment that the existing BTA determination is sufficient, EPA's position is that 316(b) determinations should be reassessed at each permit re-issuance to ensure that conditions in the permit reflect the BTA at that time. In the October 14, 2009, draft permit, IDEM has included sufficient permit conditions using best professional judgment (BPJ) as required by 40 CFR 125.90(b) and has adequately documented its decision in the fact sheet accompanying that draft permit.

The October 14, 2009, permit requires the U.S. Steel Gary Works facility to operate the intakes in the manner consistent with the operational description provided for the BTA determination including ensuring that the velocity through the intake screens does not exceed 0.5 ft/s. Impingement and entrainment monitoring at the Lakeside, #2 Pump Station and #1 Pump Station intakes is required for the life of the permit. The permit also requires an evaluation of the fish return systems at applicable intakes to assess whether they minimize impingement mortality.

Comment

Commenters identified that the studies at the facility were conducted in the 1970's and that, in their opinion, ecological conditions have changed in the surrounding waters. They indicated that a new study must be conducted to provide representative data of the current biological community and conditions.

EPA Response

EPA believes that the monitoring required by the October 14, 2009, permit will improve the understanding of the current environmental impact of the cooling water intake structures at the U.S. Steel Gary Works facility. The permit requires impingement and entrainment monitoring at the Lakeside, #2 Pump Station and #1 Pump Station intakes. If that data indicate that a more rigorous evaluation is necessary to update the existing biological community information, that issue will be appropriately addressed in the next permit reissuance.

Comment

Commenters referenced the "Riverkeeper II" decision by the Second Circuit Court of Appeals related to cooling water intake structure requirements for existing facilities, and called for permit requirements to be consistent with that decision.

EPA Response

The Riverkeeper II decision was issued after the Second Circuit's review of EPA's 316(b) Phase II rule for Large Existing Power Plants. Thus that decision is not directly applicable to the U.S. Steel Gary Works facility as it is not covered under that regulation. However, EPA agrees that the best professional judgment process should consider judicial decisions on 316(b) issues, even if not directly applicable. EPA believes that the permit requirements that IDEM has developed under 40 CFR 125.90(b) are consistent with that decision.

2.H Storm water requirements

Comment

EPA received numerous comments regarding the storm water pollution prevention plan (SWPPP) requirements in the draft permit. Commenters addressed permitting authority review of the SWPPP, availability of the SWPPP during the notice and comment period, including requests for public hearings, and stated that the SWPPP requirements should be explicitly incorporated into the permit. Commenters cited Environmental Defense Center, Inc. v. EPA (EDF) and Waterkeeper Alliance, Inc. v. EPA (Waterkeeper) to support their claim. Commenters also questioned whether the SWPPP has been properly updated, that monitoring and reporting requirements in the 2007 draft permit were deleted, and that additional provisions in the 2007 draft permit undermine the requirements of the Clean Water Act.

EPA Response

In response to these comments, IDEM has substantially rewritten the SWPPP requirements in the October 14, 2009, draft permit, so that they closely track EPA's Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities. As explained at length in the EPA Fact Sheet for that General Permit, which is available at http://www.epa.gov/npdes/pubs/msgp2008_finalfs.pdf, the provisions in EPA's General Permit are consistent with the Clean Water Act, EPA's implementing regulations, and various judicial decisions relevant to storm water permitting issues. Because the revised storm water provisions in IDEM's October 14, 2009, draft permit also follow this approach, EPA believes these are also consistent with the Clean Water Act and EPA regulations.

2.I Total Maximum Daily Loads (TMDL)

Comment

Some commenters noted that the Grand Calumet River (GCR) is identified on the CWA Section 303(d) list as being 'impaired' with respect to certain pollutants, including ammonia, cyanide, oil and grease, mercury, and that the biotic community in the GCR is impaired. The commenters noted that although IDEM has designated the headwaters of the GCR under Section 303(d) as impaired, IDEM has not developed a Total Maximum Daily Load (TMDL) or specified alternative measures to restore waters affected by these impairments. Commenters also stated that IDEM must complete TMDL for waters listed as impaired.

EPA Response

The term "303(d) list" refers to the list of impaired and threatened waters (stream/river segments, lakes) that the Clean Water Act requires all states to submit for EPA approval every two years. The states identify all waters where required pollution controls are not sufficient to attain or maintain applicable water quality standards, and establish priorities for development of TMDLs based on the severity of the pollution and the sensitivity of the uses to be made of the waters, among other factors (40 C.F.R. §130.7(b)(4)). States

then provide a long-term plan for completing TMDLs within 8 to 13 years from first listing.

EPA policy allows states to remove waterbodies from the list after they have developed a TMDL, after other changes to correct water quality problems have been made, or as a result of a change in water quality standards. As described in the fact sheet accompanying the October 14, 2009, draft permit, IDEM is considering removing the GCR from the 303(d) list with respect to ammonia and free cyanide. Any decision to remove a waterbody from a State 303(d) list can only be done during the biennial 303(d) listing process. The State's delisting decision is subject to public notice and EPA review and approval. To the extent that the GCR remains on the 303(d) list for other pollutant parameters, IDEM is required by the Clean Water Act to ultimately develop a TMDL or TMDLs for the GCR for those pollutant parameters.

2.J. Antidegradation and Antibacksliding

Comment

One commenter stated that analysis was necessary to determine if the permit limits were as restrictive as those in the previous issued permit in order to meet EPA antibacksliding requirements.

EPA's Response

As described above in Section I.G, antibacksliding, in the context of the Clean Water Act NPDES permitting program, refers to a general prohibition on the relaxation of certain effluent limitations in reissued permits, subject to important exceptions set forth in Section 303(d)(4) and 402(o)(2) of the Clean Water Act and 40 CFR 122.44(l)(1). EPA agrees that the NPDES permit must meet these requirements. Moreover, where one of these antibacksliding exceptions is met, the relaxation of limits must nevertheless comply with the state's antidegradation policy. A general discussion of antidegradation is provided in Section I.F, above.

Comment

A number of commenters supported EPA's objections pertaining to antidegradation. Those objections were based upon the fact that the draft permit contained new limitations for copper, silver, nickel, cadmium, hexavelent chromium, total cyanide, zinc, and lead at internal outfall 604. The draft permit also contained effluent limitations that would allow discharges of zinc through internal outfall 603 to increase beyond the levels set forth in the previous permit for this facility. EPA stated that it was not clear whether the state's antidegradation requirements had been met.

EPA Response

EPA had expressed concern regarding the inclusion of new limits at internal outfall 604. IDEM has clarified that these limits are technology-based effluent limits (TBELs) which were added to rectify a deficiency in the previously-issued permit. That permit lacked TBELs required by effluent limitation guidelines at 40 CFR Part 433. EPA supports IDEM's decision to add appropriate TBELs at internal outfall 604. (In the October 14, 2009, draft permit, IDEM has re-calculated the TBELs based upon the new production data; and these are more stringent than the 2007 draft permit.) The new limits do not represent an increase in pollutant loadings at the facility. EPA has reviewed this situation and is satisfied that it is consistent with state's antidegradation procedures.

As a further note, in a few cases the new TBELs were determined to be insufficient to protect water quality, should pollutants be discharged at TBEL levels. In these cases, even though the facility has not demonstrated the reasonable potential to cause an exceedance of water quality standards, IDEM has included more stringent water quality-based limits for copper, lead, silver, and cadmium at the corresponding external outfall 034. In the case of nickel, hexavelent chromium, zinc, and total cyanide, IDEM determined that the new TBELs for these pollutants at the internal outfalls are sufficient to protect the water quality, and additional limits are not needed at external outfall 034.

In the July 4, 2007, draft permit, IDEM proposed to remove limits for chromium (total) at outfall 034, and add new TBELs for chromium (total) at internal outfall 604. EPA objected to this because the permit appeared to allow for an increase in loading of chromium (total), which was not supported by an antidegradation analysis.

In the October 14, draft permit, IDEM has re-calculated more restrictive TBELs for chromium (total) at internal oufall 604, based upon the new production data. The proposal does not allow an increase in chromium (total)compared to the previously issued permit. IDEM determined that discharges at the maximum allowable level at internal outfall 604 do not have the reasonable potential to cause or contribute exceedances of the water quality standard for chromium (total) at external outfall 034. For this reason it is appropriate not to include a water quality based effluent limitation for chromium (total) at external outfall 034. EPA is satisfied that IDEM has followed its antidegradation procedures with respect to chromium (total) at this outfall.

In the 2007 draft permit, IDEM proposed to increase the mass limits for zinc at internal outfall 603. However, in the October 14, 2009, draft permit, IDEM has proposed to retain the zinc mass limits found in the previously issued permit. EPA is satisfied that this revision addresses any concern regarding antidegradation regarding zinc at internal outfall 603.

Comment:

A number of commenters raised concerns that the IDEM's proposal to remove pollutants limits that were contained in the previously issued permits needed to be justified following an antidegradation review.

EPA Response:

EPA reviewed all the instances where IDEM proposed to remove limits. Generally these were situations where, based on new information, IDEM determined that there was no reasonable potential to cause or contribute to violations of water quality standards. Removing water quality-based limits in such situations is acceptable, and does not constitute a lowering of water quality that would trigger antidegradation review.

Comment:

A commenter raised the concern that proposed discharge limits for cyanide at outfall 005/010 represent backsliding.

EPA Response:

Proposed limitations in the 2007 draft permit would have allowed for an increased mass discharge of free cyanide at outfall 005/010 during certain times of the year. In the October 14, 2009**,** draft permit, IDEM has revised the limitations for free cyanide to be equal to, or more stringent than, those in the previously issued permit. Specifically, the mass limitation in the October 14, 2009, draft permit effective during Season 1, has been set equal to that in the previously issued permit, and the concentration limitation during Season 1 has been made more restrictive than in the previously issued permit. This addresses any concern regarding backsliding with respect to free cyanide.

2.K. Great Lakes Initiative

Comment

A number of commenters expressed the opinion that U.S. Steel should be held to higher standards related to the discharge of mercury.

EPA's Response

As described earlier in this response to comment document, the Clean Water Act and EPA's implementing regulations require that, to the extent that U.S. Steel's discharges have the reasonable potential to cause or contribute to causing exceedances of the mercury criteria in Indiana's water quality standards, the permit must contain appropriate water quality based effluent limitations for mercury. Federal law also allows IDEM to include compliance schedules, where appropriate, in certain limited circumstances, provided that, among other things, the compliance schedule requires compliance as soon as possible. As described in Section 2.F, above, the October 14, 2009, draft permit contains appropriate mercury water quality based effluent limitations and appropriate compliance schedules. EPA does not agree that U.S. Steel should be held to a higher standard than being obligated to comply with its water quality based effluent limitations for mercury in accordance with the October 14, 2009, draft permits compliance schedule.

2.L. Monitoring requirements

Comment

One commenter asked whether the permit will require U.S. Steel to sample immediately prior to discharge in addition to after the mixing zone. The same commenter suggested that IDEM should require actual instream biological monitoring for the receiving waterbodies and/or watershed in addition to bench scale testing for the toxicity of wastewaters under this permit.

EPA Response

One purpose of the NPDES permitting effluent limitation process is to translate instream water quality criteria and water quality conditions into end-of-pipe discharge limitations necessary to protect water quality. Consequently, EPA believes that monitoring requirements generally should apply at the point of discharge. The October 14, 2009, draft permit is consistent with EPA requirements because the monitoring requirements for all parameters other than temperature (including toxicity) are imposed for locations prior to discharge, rather than in the receiving stream; and the monitoring requirements for temperature apply at both the point of discharge as well as after the mixing zone.

Comment

Another commenter raised concerns about reduced monitoring requirements at internal outfall 502, and expressed that these requirements should be maintained.

EPA Response

Internal outfall 502 consists of the non-contact cooling water flows generated as a result of a Coke Gas Desulfurization Project which removes the sulfur compounds from coke oven gas and converts them to a marketable sulfur product, resulting in a reduction of 80 percent of the sulfur dioxide emissions from the coke ovens. The coke oven gas desulfurization facility involves a number of chemical reactions that require specific temperatures. Therefore, non-contact cooling water is needed for the heating or cooling of chemical process equipment within the facility. The flows that pass through internal outfall 502 are eventually discharged through outfall 005.

As IDEM explained in the fact sheet in support of the October 14, 2009, draft permit, the primary pollutant of concern in the past for flows passing through internal outfall 502 had been ammonia. As IDEM further explained, a review of the data has indicated that these flows are not a significant source of ammonia. Finally, there are ammonia monitoring requirements (as well as limitations and monitoring requirements for other parameters) applicable to outfall 005, the outfall through which these flows are eventually discharged, and so IDEM has concluded that monitoring requirements at internal outfall 502 are no longer necessary. EPA is satisfied with IDEM's explanation for removing the monitoring requirements at internal outfall 502.

Comment

A commenter said that the public has the right and should be able to monitor, if necessary, on their own. The commenter expressed interest in where to find and monitor information on Indiana Waterways.

EPA Response

EPA's Envirofacts is a database that contains environmental information on air, land and water. It also allows public access to other EPA databases that contain environmental activities anywhere in the United States. This database can be accessed at http://www.epa.gov/enviro/.

Individuals familiar with Envirofact may want to click on the 'Advanced Capabilities' option which will allow users to go directly to the queries, maps or reports. Individuals who are unfamiliar with Envirofacts may want to begin with 'Quick Start.'

Comment

One commenter suggested that an independent testing agency from another state should be used to confirm all chemical quality effluent results.

Response

Section 308 of the Clean Water Act and EPA's regulations at 40 CFR 122.22 and 122.41(k) require that permittees certify to the accuracy of the information submitted to NPDES authorities in their self-monitoring reports and other submissions. Under Section 309 of the Clean Water Act, there significant civil and criminal penalties associated with submission of false information. Given these requirements, EPA does not believe in this context that there is a need for an independent testing agency to confirm all chemical quality effluent results.

Comment

One commenter asserts that the permit should not relax monitoring requirements for a variety of pollutants due to what the commenter claims are "the company's history of compliance problems."

EPA Response

EPA believes that IDEM has provided an adequate justification in the permit fact sheet for relaxing monitoring requirements for the various pollutants noted by the commenter, and the commenter does not provide any explanation as to what "history of compliance problems" it is referring to or how that "history" is relevant to the monitoring requirements of the permit.

Comment

One commenter has expressed concern about the fact that monitoring frequency requirements for discharges from outfall 005 and several other outfalls have been reduced for a number of parameters, without adequate justification.

EPA Response

40 CFR 122.48(b) requires that permits include monitoring requirements, "including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity." As the permitting authority, IDEM has broad discretion in determining appropriate monitoring frequencies, and EPA does not believe that the commenter has provided an adequate basis for EPA to disagree with IDEM's exercise of that discretion.

2.M. Comments in Support of U.S. Steel

A number of commenters supported Indiana's permitting process and the draft U.S. Steel permit. They stated that the draft permit is more stringent than the previous permit and will improve water quality, stressed the need to balance continued improvements in water quality in Lake Michigan with continued successful operation of U.S. Steel and they noted that the community and its residents rely on the economic success of manufacturing industries to provide jobs and benefits to the community.

EPA's Response

EPA appreciates the comments.

2.N. Grand Calumet River

Comment

One commenter urged that EPA not let U.S. Steel production activities impede the region's progress toward environmental remediation of the Grand Calumet River and Lake Michigan

EPA's Response

EPA believes that the October 14, 2009, draft permit is consistent with federal requirements and includes conditions that will ensure that discharges from U.S. Steel will not impede progress toward restoring Lake Michigan and the Grand Calumet River

Comment

One commenter referenced sediment cleanup efforts in the Grand Calumet River/Indiana Harbor Ship Canal, and stated that the impact of the discharge on sediment quality must be considered to assure there will not be recontamination of the sediment. The commenter also argued that total suspended solid discharges need to be reduced in order to prevent high e-coli level from occurring in the lake.

EPA's Response

EPA believes that the stringent water quality standards applicable to the Great Lakes System and the stringent effluent limitations in the October 14, 2009, draft permit will ensure that the U.S. Steel discharges do not re-contaminate sediment in the Grand Calumet River/Indiana Harbor Ship Canal. With regard to the total suspended solids comments, EPA is unaware of data suggesting that discharges from U.S. Steel contribute high e coli levels in Lake Michigan.

Comment

One commenter urged further action to remediate high sediments in the area and "daylighting" (removing from a pipe) an 1800 foot stretch of the Grand Calumet River

EPA's Response

EPA's role in this permitting proceeding is to ensure that the draft permit is consistent with federal NPDES permitting requirements. Those federal requirements do not address the remediation and "daylighting" activities described by the commenter.

Comment

A commenter raised a concern regarding a statement in the fact sheet regarding site-specific criteria for cyanide. The fact sheet references the development of the site specific water quality criteria for cyanide. The commenter questioned how this site-specific calculation can be considered protective of the designated uses of the Grand Calumet River when, (1) there are no seasonal variations in the WQ requirements that will be supportive of a "well balanced warm water fishery," and (2) Indiana's WQS for cyanide is not protective of common aquatic species to begin with.

EPA's Response

EPA approved under Section 303(c)(3) Indiana's site-specific water quality standards for cyanide for the Grand Calumet River on October 3, 2005. Consequently, those are the water quality standards applicable to this permit under 40 CFR 122.44(d). To the extent that the commenter has concerns about adequacy of any of Indiana's water quality standards, the commenter should raise those issues directly with IDEM in the water quality standards triennial review context.

2.O. Government Inspections

Comment

One commenter questioned why government inspectors provide NPDES permittees with advance notice of inspections.

EPA's Response

EPA and IDEM do not always provide NPDES permittees with advance notice of inspections. However, inspections frequently involve extensive review of documents and interviews with staff and supervisors at the NPDES permittee's facility, and such inspections are generally far more productive if the permittee is provided advance notice of the inspection.

2.P. Miscellaneous Comments

Comment

One commenter expressed concern that freeze protection wastewater is discharged from the facility, but the permit provides no limits on the discharges.

EPA's Response

U.S. Steel defines the term "freeze protection wastewater" to mean clean water that is used in various piping systems in the plant during the winter months to maintain the integrity of equipment. U.S. Steel does not use any chemical additives for the purpose of freeze protection and so is not seeking permit authorization to discharge any such freeze protection additives. IDEM will clarify the meaning of the term "freeze protection wastewater" in the fact sheet that accompanies the final permit that IDEM ultimately issues.

Comment

A commenter expressed concerns about water quality impacts from water additives.

EPA's Response

All water and wastewater treatment additives must be approved by IDEM prior to use. The permittee must submit an application which includes an MSDS sheet for each additive to be reviewed. IDEM reviews the dosage versus the expected discharge concentration at the final outfall and then compares that to the calculated acute and chronic toxicity values. The acute and chronic toxicity information is submitted on the material safety data sheets (MSDS). IDEM requires this information for all additives added to a system with a discharge to waters of the State regardless of the location. These additives could be for non-contact cooling, boiler additives or as a part of the

various wastewater treatment areas. In addition to an individual review and approval process, the additive and synergistic affects of using multiple additives are determined through biomonitoring requirements at the outfalls that have the majority of these additives. Finally, a list of the additives that IDEM has approved for use is included in the permit fact sheet for the October 14, 2009, draft permit.

Comment

One commenter expressed concern over the dilution that takes place internally in those outfalls that receive a mixing of various waste streams.

EPA's Response

As described above in Sections 1.C and 1.D, NPDES permit must contain technology-based effluent limitations and water quality based effluent limitations, where technology based effluent limitations are not sufficient to ensure achievement of water quality standards. There is no prohibition on mixing of various wastestreams, provided that the permit writer adequately accounts for mixing and dilution in establishing technology based effluent limitations, and includes appropriate water quality-based effluent limitations on the discharge of any mixed waste streams. EPA believes that IDEM has adequately accounted for mixing and dilution in establishment of the technology-based effluent limitations in this permit, and in establishing water quality based effluent limitations for the discharge of mixed waste streams.

Comment

One commenter stated that many of the proposed effluent limits does not even meet third world standards as the world bank's guidelines for effluent from steel mills.

EPA's Response

The methodology used in developing and expressing "limits" under the world bank guidelines is quite different from the methodology used in developing and expressing technology based limits under EPA's effluent guidelines and so the basis for the commenter's unsupported statement is not readily apparent from the world bank guidelines. *See* http://www.ifc.org/ifcext/sustainability.nsf/Content/EnvironmentalGuidelines.

Comment

A commenter stated that the allowance under the proposed permit of mass balance calculations based upon pre-designated flow rates instead of actual measured flow rate does not produce representative reporting of what concentrations of pollutants are actually being discharged.

EPA's Response

EPA's regulations at 40 CFR 420.04, 122.45(b)(2), and 403.6(c)(3) require that NPDES permit and pretreatment limits be based on a "reasonable measure of actual production," but do not define the term. The fact sheet for the October 14, 2009, draft permit indicates that production rates represent the highest monthly production rate achieved over a recent five year period, and prorated to a daily basis. EPA believes that IDEM's approach is consistent with EPA's regulations.

Comment

The draft permit does not consider ground water and/or infiltration discharges, and it does not propose effluent limits for discharges pollutants of groundwater discharges and/or infiltration that become point sources with respect to known groundwater contamination.

EPA Response

The NPDES permit that is ultimately issued to U.S. Steel will only authorize discharges from outfalls specified in the permit. To the extent that the commenter is correct and U.S. Steel discharges from other point sources not specified in the NPDES permit (and the commenter has provided no information to substantiate these assertions, including nothing to substantiate the assertion that releases into groundwater constitute discharges of pollutants into navigable waters of the United States that would be subject to the NPDES permitting program), any such discharges would constitute discharges without permit authorization in violation of Section 301 of the Clean Water Act. IDEM is under no obligation to propose effluent limitations for such unauthorized discharges.

Comment

One commenter stated that IDEM's permitting process has languished for so long concerning U.S. Steel that he saw no reason not to go back and start over with a comprehensive analysis of the pollutants discharged into the US waters.

EPA's Response

The October 14, 2009, draft permit is based upon a comprehensive analysis of updated monitoring information (January 2005-April 2008).

Comment

Does the IDEM expect the proposed NPDES permit to require or encourage U.S. Steel to undergo any significant production process up-grade, reconfigurations, and/or replacement or force any technological solutions as a result of any discharge limits, numerical limits, monitoring, and/or reporting requirements?

EPA's Response

The mercury compliance schedule requires that U.S. Steel develop and implement new technological solutions for controlling mercury to achieve compliance with the mercury effluent limitations.

Comment

Did IDEM incorporate all "existing" uses into the Water Quality Standards as a "designated" uses under the proposed NPDES permit? If so, please provide details. If not, please provide an explanation why this was not done.

EPA's Response

40 CFR 122.44(d) requires that water quality based effluent limitations be included in NPDES permits where "necessary to achieve water quality standards." Water quality standards "consist of a designated use or uses for the waters of the United States and water quality criteria for such waters based upon such uses." 40 CFR 131.3(i). Consequently, water quality criteria and designated uses must be taken into account in developing water quality based effluent limitations.

"Existing uses are "those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards." 40 CFR 131.3(e). For NPDES permitting purposes, existing uses generally only come into play in the context of the ensuring that any proposed lowering of water quality complies with antidegradation requirements. *See* 40 CFR 131.12(a)(1) (Antidegradation policy and implementation methods must ensure that "[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected."). As described above in Section 2.J, EPA believes that IDEM has adequately demonstrated that the permit complies with applicable antidegradation requirements.

Comment

The draft permit allows the continued discharge of massive TSS, much of which will settle out in the receiving waterbodies. How does IDEM determine that this is not a defacto violation of Section 404 of the Clean Water Act?

EPA Response

EPA does not believe that the discharge of suspended solids in compliance with an NPDES permit issued in accordance Section 402 of the Clean Water Act constitutes a discharge of dredged or fill material subject to Section 404 of the Act.

Comment

One commenter stated that the draft permit failed to address highly contaminated landfill leachate discharge.

EPA's Response

The fact sheet to the October 14, 2009, draft permit explains that the landfill leachate is treated through equalization, neutralization, chemical precipitation, and microfiltration. The leachate passes through internal outfall 607 prior to ultimate discharge from outfall 015. The October 14, 2009, draft permit includes effluent limitations at internal outfall 607 for total suspended solids and oil and grease; and water quality based effluent limitations at outfall 015 for mercury, residual chlorine, mercury and pH.

Comment

A commenter expressed concern that existing facilities are sometimes in ill repair and not attended to sometimes over a year

EPA's Response

Section II.B.1 of the October 14, 2009, draft permit requires that U.S. Steel "maintain in good working order and efficiently operate all facilities and systems (and related appurtenances) for the collection and treatment which are installed or used by the permittee and which are necessary for achieving compliance with the terms and conditions of this permit."

Comment

A commenter expressed concern that the public was not aware that there were permitted discharges of pollutant and chemicals into the lake.

EPA's Response

EPA hopes that the public has become more educated about the Clean Water Act, the NPDES permitting process and discharges into Lake Michigan as a result of the proceedings on the U.S. Steel NPDES permit over the past two years.

2.Q. Additional Comments Beyond the Scope of NPDES Permitting Process

Comment

A number of comments were addressed previously in this document that went beyond the scope of EPA's authority in reviewing IDEM's draft permit in the NPDES permitting context. Commenters also raised the following additional comments that go beyond the scope of EPA's authority process. Commenters stated there should be firm nonpoint source pollution control policy applied to U.S. Steel's Harbor and other Lake Michigan ports; control policies should also require improved handling of ship board waste and residues, environmental design, operated fueling servicing, and cargo transfer procedures; this permit should be combined with a permit regulating the operation of U.S. Steel's passive dewatering facility; U.S. Steel needs to reduce its discharges beyond those

required by EPA looking at a cost/benefit ratio from financial, social and environmental view point; EPA should restrict tax credit to be used only for pollution control and development of technology and another commenter suggested that EPA should require U.S. Steel to pay into a water filtration fund to remove toxins from drinking water; and that Indiana and EPA should consider providing any necessary technical and/or financial assistance for significant technological and/or process changes in order to eliminate or reduce the discharge of pollutants in the draft permit

EPA's Response

EPA is not responding to these comments other than to note that they go well beyond EPA's authority in reviewing IDEM's draft permit in the NPDES context.

Comment

A commenter expressed concern that power plants are responsible for most of the mercury pollution.

EPA's Response

EPA acknowledges the comment but notes that it is beyond the scope of these proceedings pertaining to the NPDES permit for U.S. Steel.