



SCHOOL OF LAW

Civil Justice Clinic
Interdisciplinary Environmental Clinic
February 27, 2009

Illinois Environmental Protection Agency
Ms. Annet Godiksen, Hearing Officer
Re: United States Steel – Granite City Works
1021 N. Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

Re: Draft Clean Air Act Permit Program (CAAPP) Permit to United States Steel – Granite City Works (I.D. No. 119813AAI; Application No. 96030056).

Dear Ms. Godiksen:

On behalf of the American Bottom Conservancy (ABC), the Interdisciplinary Environmental Clinic at Washington University School of Law (IEC) submits the following comments regarding the draft Clean Air Act Permit Program (CAAPP) or Title V permit published by the Illinois Environmental Protection Agency (IEPA) for the United States Steel Corporation - Granite City Works (USS-GCW) facility in Granite City, Illinois.

I. Introduction

USS-GCW first applied for a CAAPP¹ permit in 1996 but has yet to obtain one. The IEPA published a draft permit for USS-GCW in 2003, but took no further action on that draft. IEPA did not meet the statutory deadlines for action on the 1996 permit application.² USS-GCW submitted a new permit application in 2007. IEPA published a draft CAAPP permit for public comment in October 2008. A public hearing regarding the

¹ All references to CAAPP permitting in this comment letter encompass federal and Illinois state regulations regarding Title V and CAAPP permits. The Illinois CAAPP Program requires adherence not only to state law and regulations regarding CAAPP permits, but also the federal Clean Air Act, Title V program, 42 U.S.C. §§7661 - 7661f and 40 C.F.R. Part 70, due to the 1) Supremacy Clause of the United States Constitution and 2) Illinois state code requiring permit provisions to comply with the Clean Air Act: "The [Illinois Environmental Protection] Agency shall issue CAAPP permits under this Section consistent with the Clean Air Act and regulations promulgated thereunder and this Act and regulations promulgated thereunder." 415 ILL. COMP. STAT. 5/39.5(3)(a) (2005). Furthermore, the Illinois code requires air pollution operating permits to "[i]ncorporate and identify all applicable emissions monitoring and analysis procedures or test methods required under the Clean Air Act, regulations promulgated thereunder, this Act, and applicable Board regulations, including any procedures and methods promulgated by USEPA pursuant to Section 504(b) or Section 114(a)(3) of the Clean Air Act." 415 ILL. COMP. STAT. 5/39.5(7)(d) (2005).
² 415 ILL. COMP. STAT. 5/39.5(j) (2005) ("The Agency shall issue or deny the CAAPP permit within 18 months after the date of receipt of the complete CAAPP application.... Where the Agency does not take final action on the permit within the required time period... the failure to act shall be treated as a final permit action....").

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draft CAAPP permit occurred on December 2, 2008, after which the IEPA provided follow up answers to the IEC to questions it could not answer at the time of the hearing.³ The following comments are directed at the October 2008 draft CAAPP permit.

A. ABC Has an Interest in the Environmental Impacts of the USS-GCW Facility. ABC is a grassroots organization based in the Metro-East region, with members residing and recreating in Granite City. The United States Environmental Protection Agency (USEPA) reported that Madison County (in the Metro-East region), in which USS-GCW is located, has the highest population, second densest population, and highest percentage of urban land cover in the Metro East region.⁴ ABC's primary goal is to protect community members from air, water, and land pollution. This proves challenging in an air pollution nonattainment region for fine particulate matter (PM_{2.5})⁵ and ground-level ozone.⁶

USS-GCW, located amidst a residential community, next to a state park, is the primary source of fine particle pollution in the region,⁷ and emits substantial amounts of numerous other pollutants that threaten human health and the environment. In addition, USS-GCW has a history of air pollution violations. In September 2005 the IEPA filed an air pollution complaint against USS-GCW. After two amended complaints were filed, adding further violations, the matter was settled in December 2007.⁸ However, USS-GCW has yet to fully implement the settlement; therefore, the conditions causing the violations apparently have not yet been remedied.

³ Illinois Environmental Protection Agency, *Questions Pending from U.S. Steel Title V Public Hearing*, Jan. 15, 2009 (provided to IEC by IEPA). Attached hereto as Exhibit 1.

⁴ Illinois Environmental Protection Agency, *Technical Support Document for the Recommended Nonattainment Boundaries in Illinois for the 24-Hour PM_{2.5} National Ambient Air Quality Standard*, Dec. 18, 2007, at 27, available at <http://www.epa.state.il.us/public-notice/2007/pm25-standards/recommendations.pdf>. Attached hereto as Exhibit 2.

⁵ The USEPA designated Madison County, Illinois a PM_{2.5} nonattainment region on December 16, 2008. U.S. Environmental Protection Agency, Green Book, *Particulate Matter (PM_{2.5}) Nonattainment Area/State/County Report*, Dec. 16, 2008, available at <http://www.epa.gov/oar/oaqps/greenbk/qnca.html#7040>. Attached hereto as Exhibit 3.

⁶ The USEPA designated Madison County, Illinois a ground-level ozone nonattainment region on December 16, 2008. U.S. Environmental Protection Agency, *8-Hour Ozone Nonattainment Area/State/County Report*, Dec. 16, 2008, available at <http://www.epa.gov/oar/oaqps/greenbk/gnca.html#7040>. Attached hereto as Exhibit 4.

⁷ Illinois Environmental Protection Agency, *Technical Support Document for the Recommended Nonattainment Boundaries in Illinois for the 24-Hour PM_{2.5} National Ambient Air Quality Standard*, Dec. 18 2007, at 23, available at <http://www.epa.state.il.us/public-notice/2007/pm25-standards/recommendations.pdf>. Attached hereto as Exhibit 2. USS-GCW has the highest annual mean values of PM_{2.5} emissions. *Id.* at 9, table 2.

⁸ See Consent Order 05-CH-750, People of the State of Illinois, ex rel., Lisa Madigan v. U.S. Steel Corporation, Inc. Dec. 18, 2007. Circuit Court of the Third Judicial Circuit, Madison County, Illinois. Attached hereto as Exhibit 5.

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ABC appreciates the difficult economic circumstances currently facing the company, its employees, and the country at large. ABC appreciates the importance of the plant's jobs and payroll for its employees and the community. ABC submits these comments in the spirit of ensuring that, when the facility emerges from its idled status and resumes operations, it does so in a manner that complies with the law and protects the health of its neighbors.

B. Environmental Justice Considerations Require a More Thorough Review and Favor a Protective Permit.

American Bottom Conservancy requests that this draft CAAPP permit be reviewed in an environmental justice context. The area surrounding USS qualifies as an Environmental Justice community. According to the U.S. EPA Environmental Justice Geographic Assessment Tool, 95,011 people live within five miles of the facility, 53.3 percent of whom are minority and 25.9 percent below the poverty level. 35,376 people live within three miles, including 21 per cent minority and 17 per cent below the poverty level. 5,771 people live within one mile of the facility, 20 per cent minority and 20.5 per cent below the poverty level. At all three distances, approximately 40 per cent or more are age 65 or older or 17 and under, sensitive populations most vulnerable to air pollution.⁹ Located within blocks of USS-GCW are low-income public housing, a ball field, several grade schools, and a preschool just down the road from the coke plant.

Horseshoe Lake State Park is adjacent to the coke plant. It is visited by 365,000 people annually. The park is used for picnicking, birdwatching, soccer games, camping, boating, hunting, fishing, hiking, biking, nature observation and trail-walking. There is subsistence fishing at the lake.¹⁰ The Madison County Schoolhouse Trail goes through USS-GCW facility grounds, behind the coke plant.¹¹ There are 10 schools in Granite City within five miles of the facility plus a preschool, Early Childhood Center, across from the coke plant coal preparation site.¹² Within three miles of the facility, the City of Venice has an elementary school and an Early Childhood Center,¹³ and the City of Madison has five schools.¹⁴ The area hospital, Gateway Regional Medical Center, is located two blocks from the facility.¹⁵

Accordingly, there is a compelling need for full public disclosure of USS-GCW's air pollution emissions – including pollutants that threaten human health and the environment and are emitted in substantial quantities by USS-GCW such as fine

⁹ EPA, Environmental Justice Graphic Assessment Tool, Demographic Profiles within 1, 3, and 5 miles of the USS-GCW facility, website information attached hereto as Exhibits 39, 40, and 41.

¹⁰ <http://www.dnr.state.il.us/lands/Landmg/PARKS/R4/HORSESP.HTM>.

¹¹ <http://www.mcttrails.org/viewer.htm>; http://www.trailnet.org/trail_main.php.

¹² <http://www.granitecityschools.org/schools/index.html>.

¹³ <http://www.venice.k12.il.us/index.php?option=displaypage&Itemid=50&op=page&SubMenu=>

¹⁴ <http://www.madisoncusd12.org/>.

¹⁵ <http://www.healthgrades.com/hospital-directory/illinois-il-east-st-louis/gateway-regional-medical-center-hgst63346f56140125>.

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particulate matter (PM_{2.5}), mercury, and carbon dioxide. The Project Summary and the draft CAAPP permit should inform the community of the facility's emission of these pollutants, with quantities provided, and explain why the draft CAAPP permit does not include any emission limits on those pollutant emissions.

In addition, environmental justice considerations heighten the already-strong legal requirement for emissions monitoring sufficient to ensure that USS-GCW is operating in compliance with its permit limits. Where the law provides discretion to IEPA to exercise its judgment in determining the extent of monitoring required, environmental justice considerations favor the use of monitoring tools best calculated to ensure ongoing compliance with emission limits.

C. ABC's Concerns with the Draft CAAPP

The Title V program plays a critical role in enabling an industrial facility, government regulators, and the public to identify all applicable requirements that apply to a facility's air pollution emissions and to determine whether the facility is complying with those requirements. "One purpose of the title V program is to enable the source, EPA, states, and the public to better understand the applicable requirements to which the source is subject and whether the source is meeting them."¹⁶

A Title V/CAAPP permit that fulfills that objective is particularly important in this case, as it involves a large, complex, high-polluting facility with impacts on immediate neighbors as well as a sizeable metropolitan community, and with a history of air pollution violations. ABC is pleased to have the opportunity to comment, at last, on a draft CAAPP for the USS-GCW facility. However, ABC is concerned that the draft CAAPP falls far short of fulfilling its legal requirements and policy purposes. It does not adequately inform regulators and the community of the nature of USS-GCW's emissions, it does not identify and include all applicable requirements, and it fails in numerous instances to require the facility to conduct monitoring sufficient to determine whether it is complying with its emission limitations.

As discussed more fully below, one can read all 282 pages of the draft CAAPP and its attachments without learning that this facility is a substantial source of three pollutants of particular harm to the community, near and far, and the environment – fine particulate matter, mercury, and carbon dioxide. While emission limits do not currently exist for the facility's emissions of those pollutants, the permit should nonetheless notify the public of

¹⁶ In the Matter of Pouch Terminal, 2008 EPA CAA Title V Lexis *2. See also *Sierra Club v. Johnson*, 436 F.3d 1269, 1260 (11th Cir. 2006):

"The intent of Title V is to consolidate into a single document (the operating permit) all of the clean air requirements applicable to a particular source of air pollution." *Sierra Club v. Ga. Power Co.*, 443 F.3d 1346, 1348-49 (11th Cir.2006). In this way, clarity and transparency were added to the regulatory process to help citizens, regulators, and polluters themselves understand which clean air requirements apply to a particular source of air pollution.

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the facility's emissions of these regulated pollutants and explain why emission limits do not currently exist for them.

ABC's primary concerns with the draft CAAPP permit, explained in greater detail below, include the following:

- The draft CAAPP permit unlawfully fails to include all applicable permits and permit requirements;
- The draft CAAPP permit unlawfully fails to include emission reduction requirements necessary for ongoing construction of the cogeneration and coke plant projects;
- The draft CAAPP permit unlawfully fails to provide periodic monitoring sufficient to assure compliance;
- The draft CAAPP permit unlawfully fails to require Compliance Assurance Monitoring (CAM);
- The draft CAAPP permit lacks a compliance schedule for remedying ongoing violations at the facility;
- The draft CAAPP permit unlawfully exempts emissions during startup, shutdown, and malfunctions from emission limits;
- The draft CAAPP permit fails to inform the public of fine particulate matter emissions from the facility;
- The draft CAAPP permit contains numerous provisions that lack practical enforceability;
- The draft CAAPP permit fails to provide supporting calculations to prove insignificant activities in several provisions; and
- The Project Summary/Statement of Basis does not satisfy Title V/CAAPP requirements.

In short, IEPA must revise the draft CAAPP and re-issue it for public comment. IEPA should include the changes below in any final CAAPP it issues for this facility.

II. The Draft CAAPP Permit Unlawfully Fails to Include All Applicable Permits and Permit Requirements.

Nearly two decades after Congress enacted the Title V program, the USS-GCW facility is finally (perhaps) on the verge of obtaining its initial Title V/CAAPP permit. The purpose of the Title V/CAAPP permit is to incorporate all of a facility's air pollution obligations into one comprehensive document.

The permit is crucial to the implementation of the Act: it contains, in a single, comprehensive set of documents, all CAA requirements relevant to the particular polluting source. In a sense, a permit is a source-specific bible for Clean Air Act compliance.

Commonwealth of Virginia v. Browner, 80 F.3d 869, 873 (4th Cir. 1996) (internal citations omitted).

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However, the draft USS-GCW permit fails to include requirements related to two major projects currently under construction at the facility – the cogeneration project and the coke plant/coke conveyance system project (“coke plant project”). The permits that collectively authorize those two projects are in effect but their requirements are not included in the draft CAAPP permit. The CAAPP permit should be revised to include all applicable requirements from, and specific references to, the following permits:

- Permit No. 06070022 – Emission Reduction Credits permit issued January 18, 2007 (Attached hereto as Exhibit 6)
- Permit No. 06070023 – Cogeneration Project permit issued January 30, 2008 (Attached hereto as Exhibit 7)
- Permit No. 06070088 – Coke Conveyance System Permit issued March 13, 2008 (Attached hereto as Exhibit 8)
- Permit No. 06070020 – Coke Plant Permit issued March 13, 2008 to Gateway Energy & Coke Company, c/o SunCoke Company (Attached hereto as Exhibit 9)¹⁷

Both Illinois and federal law require that CAAPP/Title V permits contain “all applicable requirements.” 415 ILL. COMP. STAT. 5/39.5(7)(a); 42 USC § 7661c(a); 40 CFR § 70.6(a)(1). And both Illinois and federal law define “applicable requirements” to include requirements of all permits required under the federal Clean Air Act or the state’s SIP, including major source new source review (NSR) and prevention of significant deterioration (PSD) permits, as well as minor NSR permits. 415 ILL. COMP. STAT. 5/39.5(1); 40 CFR § 70.2.

EPA has repeatedly made clear, and recently reiterated, that “all terms and conditions in SIP-approved permit[s] are applicable requirements that must be incorporated into Title V permits.” EPA, Region 8, Letter to Steven M. Pirmer, Secretary of South Dakota Department of Environment & Natural Resources, Jan. 22, 2009, Enclosure (p. 1 of Enclosure) (“Pirmer Letter”) (Letter and Enclosure attached hereto as Exhibit 10), referencing May 20, 1999 letter from John Seitz, Director, EPA Office of Air Quality Planning & Standards, to Robert Hodanbosi and Charles Laggors of STAPPA/ALAPCO (“1999 Seitz Letter to STAPPA/ALAPCO”) (Attached hereto as Exhibit 11).

... [P]ermits issued pursuant to major or minor new source review (NSR) or prevention of significant deterioration (PSD) permit programs approved into SIP’s (or promulgated under 40 CFR § 52.21 in States implementing the federal PSD program via delegation from EPA), as well as federally enforceable State operating permits (FESOP’s) issued pursuant to SIP-approved operating permit

¹⁷ The draft CAAPP permit refers to the coke plant under construction by Gateway, states that the coke plant is considered part of the USS-GCW single source, and further states that Gateway must apply for a separate CAAPP for the coke plant within 12 months after its construction is complete. Draft CAAPP, Section 5.2.7. If the coke plant were an independent and new facility, it could take advantage of Illinois’ decision to allow new sources up to 12 months after they commence operation to apply for a CAAPP permit. 415 ILL. COMP. STAT. 5/39.5(5)(x). However, because Gateway chose to become part of the USS-GCW single source, and took full advantage of emission reductions at USS-GCW in order to avoid major NSR/PSD review of all pollutants except particulate matter, Gateway must also obtain a CAAPP permit as part of the USS-GCW Title V package.

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programs. For purposes of this discussion, the term "NSR" includes major nonattainment NSR, minor NSR and PSD.

1999 Seitz Letter to STAPPA/ALAPCO, Enclosure A, p.1.

Indeed, the Administrator of the U.S. Environmental Protection Agency (EPA) previously admonished IEPA regarding this requirement:

IEPA must review its records to determine whether these missing operating permit conditions are applicable requirements (within the meaning of 40 C.F.R. § 70.2) for the Waukegan facility. If they are, IEPA must include the terms and conditions of the operating permits in the title V permit, or explain in the statement of basis how it has streamlined them into other requirements in Waukegan's title V permit.¹⁸

As the Project Summary for the draft CAAPP states that no source-wide streamlining was involved in this case,¹⁹ IEPA must include the permits referenced below or explain why they are not applicable requirements under the Title VCAAPP regulations.

I. Revised Draft CAAPP Must Include All Requirements From Four Permits Authorizing Construction of Cogeneration and Coke Plant Projects.

The four permits listed above, which together authorize the cogeneration and coke plant projects, are major and minor NSR and PSD permits, and/or the requirements in them are "applicable requirements." Accordingly, the draft CAAPP must be revised to include their requirements.

The coke plant project permits (numbers 06070088 and 06070020) recite on their face that they are issued pursuant to the state's SIP-approved NSR program for major sources and the state's delegation of authority from EPA to administer the PSD program in Illinois.²⁰ Because the coke plant project constitutes a major source of nonattainment pollution (PM_{2.5}) in the region, the coke plant project could not proceed without "offsets" of other PM_{2.5} emissions. 42 U.S.C. § 7503(a)(1); 35 IAC 203.302 – 203.303. Accordingly, the coke plant project permits also reference the emission reduction credit permit (number 06070022) because it provided some of the necessary offsets.²¹

In addition, IEPA permitted the coke plant project on the basis that while emissions of PM and PM₁₀ were subject to PSD requirements, and emissions of PM_{2.5} were subject to major source NSR (MSSCAM) requirements, other emissions were able to avoid PSD and major source NSR permitting by virtue of emission reductions set forth in the emission reduction credit permit (06070022) and the cogeneration permit (06070023).²²

¹⁸ *In the Matter of Midwest Generation, LCC, Waukegan Generating Station*, Petition number V-2004-5; CAAPP No. 95090047, 2005 EPA CAA Title V LEXIS 14 (Sept. 22, 2005) at *13.

¹⁹ Project Summary at 27.

²⁰ See pages 1 and 4 of both permits.

²¹ See section 3.1.1 of permit 06070088 and section 3.1.3 of permit 06070020.

²² See coke plant permit (06070020) and coke conveyance system permit (06070088), sections 2.3 and Attachments 2.

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Because the permit provisions of the coke plant project permits that enable the non-PM emissions to avoid major source PSD and NSR review are minor source permit requirements, they must also be included in the CAAPP/Title V permit.

IEPA issued the cogeneration project permit as a minor NSR permit. Absent emission reductions specified in the cogeneration project permit (06070023) and the emission reduction credit permit (06070022), the project would have been a major source NSR/PSD permit. As set forth in the cogeneration project permit, section 2.2.1.a:

The limits established by this permit are intended to ensure that the Cogeneration Boiler Project addressed in this construction permit does not constitute a major modification of the source pursuant to these rules (See also Condition 2.6 and Attachment 1).

Condition 2.6.a states: "This permit relies upon the emissions decreases established by the Emission Reduction Projects (Construction Permit 06070022)." And conditions 2.6.a – 2.6.d set forth emission reductions and limits necessary to enable the cogeneration project to avoid major NSR status.

In sum, all of the above permits contain "applicable requirements" that must be included in the CAAPP/Title V for the USS-GCW facility.

IEPA acknowledges that previously-issued major and minor NSR and PSD construction permits must be included in the Title V/CAAPP. At least 10 such permits are referenced, and their requirements set forth, in the draft CAAPP.²³

However, the draft CAAPP contains no references to the four permits authorizing the cogeneration and coke plant projects. Nor does it or the project summary purport to explain why those permits' requirements are not included in the draft CAAPP. If IEPA omitted them because the cogeneration and coke plant projects are under construction, that rationale is not lawful. Both state and federal law expressly state that CAAPP/Title V permits must include "requirements and regulations which have future effective compliance dates." 415 ILL. COMP. STAT 5/39.5(1) (definition of "applicable Clean Air Act requirement"). See also 40 CFR § 70.2 (definition of "applicable requirement"). EPA recently reiterated that this specifically extends to construction permits for activities not yet in operation:

The definition of 'applicable requirement' in Part 70, as well as the explanation in the EPA's 1999 letter for including PSD permit conditions in Title V permits, are not contingent on whether or not a PSD-permitted unit has already been constructed and is operating...

Pirmer Letter, Enclosure, p. 2 (emphasis supplied).

²³ See, e.g., draft CAAPP sections 5.6.3.c, 7.2.6, 7.4.6.a, 7.5.6, 7.6.7, 7.7.7, 7.8.7, 7.10.6, 7.11.7, 7.13.6 for examples of provisions expressly referencing prior construction permits. Other provisions also incorporate additional restrictions from the referenced permits.

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IEPA must revise the draft USS-GCW CAAPP to include all of USS-GCW's requirements under the emission reduction permit (06070022), the cogeneration project permit (06070023), and the coke conveyance system permit (06070088).²⁴

2. Revised Draft CAAPP Must Include Case-By-Case MACT Limit for Hazardous Air Pollutant Emissions from Cogeneration Boiler.

When incorporating the requirements of the above-mentioned construction and emission reduction permits into a revised CAAPP (or CAAPP package, including a CAAPP for the coke plant), IEPA must also make a case-by-case MACT determination to set limits on hazardous air pollutant emissions from the new cogeneration boiler under construction at the USS-GCW facility. ABC suggested that such a determination be made in its comments on the construction permit for the cogeneration project, and IEPA responded that it would perform a Clean Air Act section 112(j) case-by-case MACT determination in the context of the CAAPP permit:

Case-by-case MACT determinations can also be triggered for a particular category of emission unit pursuant to Section 112(j) of the Clean Air Act if the USEPA lags more than 18 months behind schedule in adopting MACT NESHAP standards for the category of units. A general consequence of the vacatur of the boiler MACT rules in July 2007 is that USEPA is now more than 18 months behind schedule in adopting MACT standards for the boiler category. This triggered Section 112(j) of the Clean Air Act for boilers, as a category of emission unit. However, this does not provide a legal basis to make a case-by-case determination of MACT in a construction permit for the proposed cogeneration boiler. Sections 112(j)(3) and (4) of the Clean Air Act specifically provide for case-by-case MACT determinations made in Title V permits, which in Illinois means in CAAPP permits, not in construction permits. In addition, the USEPA already determined when originally adopting the boiler MACT NESHAP that it was not appropriate or necessary to set specific MACT emission standards for boilers fired with blast furnace gas. To the extent case-by-case MACT limits were set, they would only be in effect on an interim basis until USEPA readopts a MACT NESHAP for boilers. Finally, as case-by-case MACT limits do need to be made for sources pursuant to Section 112(j) of the Clean Air Act as a consequence of the vacatur of the boiler MACT rules, such MACT limits are more appropriately determined during processing of a CAAPP permit, so as to comprehensively address all boilers at a source that is major for HAPs.²⁵

²⁴ IEPA should also require Gateway Energy & Coke Company, c/o SunCoke Company, to apply for a CAAPP/Title V permit for the coke plant under construction (06070020), and IEPA should issue that CAAPP/Title V permit (following public notice of and comment on a draft permit) as part of the collection of permits for the various facilities that constitute the USS-GCW single source. In addition, if all of the requirements of permit 04110018 are not set forth in the draft CAAPP, then they should be included in the revised CAAPP.

²⁵ Illinois Environmental Protection Agency, *Responsiveness Summary for Public Comments and Questions on the Cogeneration Boiler Project at the United States Steel Granite City Works in Granite City, Illinois*, January 2008, response to comment 24, attached hereto as Exhibit 12. IEPA's statement that case-by-case

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Because the inclusion of requirements from the construction permits authorizing the cogeneration and coke plant projects, as well as the determination of case-by-case MACT limits for the cogeneration boiler, would constitute significant additions to the draft CAAPP, IEPA should re-issue the revised draft CAAPP for further public notice before issuing a proposed final and final CAAPP.

3. Revised CAAPP Must Include PM10 Contingency Plan.

The draft CAAPP references, and appropriately requires USS-GCW to comply with, the PM10 Contingency Plan for this facility.²⁶ Condition 5.3.4 directs USS-GCW to submit a copy to IEPA and to implement its provisions. Condition 5.3.4 and the Project Summary (p. 55) indicate that the Contingency Plan is required pursuant to and must comply with 35 IAC Part 212, Subpart U, including but not limited to 35 IAC 212.701. That regulation states: "These plans shall become federally enforceable permit conditions."

Although condition 5.3.4 states that it "incorporates by reference" the PM10 Contingency Plan, the draft CAAPP does not appear to contain any of its provisions. This does not comply with 35 IAC 212.701 and does not satisfy the requirement that Title V/CAAPP permits be enforceable as a practical matter. The public does not have ready access to the PM10 Contingency Plan, does not have a reliable way of determining whether any plan it might obtain is the one currently in force, and does not know what requirements the Plan imposes on USS-GCW. Therefore, the draft CAAPP should be revised to append the PM10 Contingency Plan currently in force to the permit, or expressly include its provisions within the CAAPP.

III. The Draft CAAPP Unlawfully Fails to Include Emission Reduction Requirements and Offsets Necessary for Ongoing Construction of Cogeneration and Coke Plant Projects.

As noted above, both the cogeneration and coke plant projects currently under construction at the USS-GCW facility relied on netting – i.e., emission reductions that USS-GCW committed to undertake in order to avoid major source NSR and PSD permit requirements (except for particulate matter emissions from the coke plant project). Because netting enables a source to avoid permitting requirements that otherwise must be in place before construction may commence,²⁷ the source must be legally bound to

MACT limits would be in effect only temporarily, pending EPA's re-adoption of an exemption for BFG-fired boilers, is entirely speculative as to both (1) whether EPA will again adopt a similar exemption and (2) when EPA will re-issue a MACT standard for industrial boilers.

²⁶ The language of condition 5.3.4 is ambiguous as to whether a PM10 Contingency Plan is currently in effect, or is required to be prepared at some indefinite time in the future. Our understanding is that it is in effect, but in any event we suggest that the language be clarified.

²⁷ See, e.g., 42 U.S.C. §§ 7475(a), 7502(c)(5), 7503(a); 35 IAC 201.142, 35 IAC 203.201 – 203.203; 40 CFR 52.21(r).

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undertake the emission reductions before it may commence construction. According to the governing Illinois regulation (for nonattainment NSR purposes):

A decrease in actual emissions is creditable to the extent that ... [i]t is federally enforceable at and after the time that actual construction on the particular change begins.

35 IAC 203.208(c)(1). See also 40 CFR § 52.21(b)(3)(vi) (re PSD major source permitting).

Thus, the construction of the cogeneration and coke plant projects, currently in progress, could not have lawfully commenced unless the emission reductions relied on for the netting analysis – and set forth in the emission reduction credit permit (06070022) and the cogeneration project permit (06070023) – were federally enforceable as of the commencement of construction. Therefore, the requirements to undertake the various emission reductions upon which USS-GCW and Gateway relied in order to commence construction lawfully (assuming that their commencement of construction was lawful) are currently federally enforceable. As such, they are “applicable requirements” (as discussed above) and must be included in the Title V/CAAPP permit. The draft Title V/CAAPP permit must be revised to include all of the emission reduction requirements set forth in the netting analyses underlying both the cogeneration and coke plant project permits.²⁸ The emission reduction projects include:

- Permanent shutdown of existing boilers 1-10 (permit 06070022);
- Construction and operation of coke oven gas desulfurization system (permit 06070022);
- Installation and operation of low NOx burners on hot strip slab furnaces 1-4 (permit 06070022);
- Permanent shutdown of number 6 galvanizing line (permit 06070023); and
- Permanent shutdown of number 4 coke oven gas booster pump (permit 06070023).

In addition, construction of the coke plant project could not have commenced without a federally-enforceable commitment to undertake offsetting reductions by the time the coke plant is to commence operation. 42 U.S.C. § 7503(a)(1)(A); 35 IAC 203.302 and 203.303. Illinois regulations make clear that offsets must take effect prior to the start-up of the new activity, and must be federally-enforceable by permit. 35 IAC 203.303(a) and (b)(4). The fact that the offsets must be federally enforceable, in and of itself, requires that the offsets necessary for the coke plant project be included in the USS-GCW CAAPP. The offsetting reductions that enabled the coke plant project to be permitted,

²⁸ See reductions referenced in: cogeneration project permit (06070023), Section 4.0, Attachment 1, Contemporaneous Decreases (referencing emission reduction projects set forth in the cogeneration permit and in the emission reduction credit permit (06070022)); coke conveyance permit (06070088), Section 5.0, Attachment 2, Contemporaneous Decreases (referencing emission reduction projects set forth in the cogeneration project permit and in the emission reduction credit permit (06070022)); and coke plant permit (06070020), Section 5.0, Attachment 2, Contemporaneous Decreases (referencing emission reduction projects set forth in the cogeneration permit and in the emission reduction credit permit (06070022)).

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and that are federally-enforceable requirements, must be included in the CAAPP. Specifically, those offsets include:

- Construction and operation of coke oven gas desulfurization system (permit 06070088, section 3.1.1 and permit 06070022); and
- Road cleaning activities (permit 06070088, sections 3.1.1 and 3.6).

IV. The Draft CAAPP Permit Unlawfully Fails to Provide Periodic Monitoring Sufficient to Assure Compliance

Periodic monitoring acts as a cornerstone of the Title V permitting scheme. Without monitoring to determine a facility's actual emissions, an emissions limit is of little value. When periodic monitoring provides reliable information to the source, regulators, and the public regarding the facility's actual emissions, it offers assurance that the facility is operating in compliance with applicable emission limitations. Periodic monitoring benefits the emission source as well as nearby residents and the public:

[I]mportantly, [the emission source] can manage the information provided from [its] title V monitoring to identify and respond to unusual periods of process or control device operation, taking necessary corrective action in a timely manner before there is a compliance issue. Data from title V monitoring also are important to permitting authorities and citizens for the purpose of assessing your emissions units' compliance with the applicable requirements.²⁹

Both the federal Clean Air Act and the Illinois Environmental Protection Act require periodic monitoring sufficient to assure compliance with application emission limits in Title V/CAAPP permits.³⁰ As recently described by the D.C. Circuit Court of Appeals, *Sierra Club v. EPA*, 538 F.3d 673 (D.C.Cir. 2008), periodic monitoring arises in three contexts:

1. Where existing regulations or underlying permits prescribe monitoring that is appropriate to the timeframe of the emission limit and sufficient to assure compliance, the permitting authority places that monitoring requirement in the permit.³¹
2. Where there is no previously-established monitoring requirement to correspond to an emission limit, the permitting authority must create one that is appropriate to the timeframe of the emission limit (periodic) and sufficient to assure compliance with the limit.³²
3. Where there exists a previously-established monitoring requirement corresponding to an emission limit, but it is not adequate to assure compliance

²⁹ Environmental Protection Agency, Office of Air Quality Planning Standards, draft, *Title V Monitoring Technical Reference Document*, Chapter 2: Principles of Title V Monitoring, 2-xi, April 2001, available at <http://www.titlev.org/otherdoc-monit.htm>. Attached hereto as Exhibit 14.

³⁰ 42 USC 7661c(c); 40 C.F.R. §§70.6(a)(3) and 70.6(c)(1); 415 ILL. COMP. STAT. 5/39.5(7)(b) and (d).

³¹ See 40 CFR § 70.6(a)(3)(i)(A); 415 ILL. COMP. STAT. 5/39.5(7)(d)(i).

³² See 40 CFR § 70.6(a)(3)(i)(B); 415 ILL. COMP. STAT. 5/39.5(7)(d)(ii)

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with the limit, the permitting authority (or EPA) must augment the monitoring in the Title V permit to ensure that it is both periodic and assures compliance with the emission limit.³³

Focusing in some monitoring contexts at the time, USEPA's review of the IEPA Title V program a few years ago highlighted the need for monitoring to ensure compliance:

USEPA has commented that, for mass emission limitations, control efficiency requirements, opacity limitations, or other similar limits, compliance cannot be directly demonstrated with a record. For this type of limit, for which there is potential for a violation, the permitting authority must include some periodic monitoring in the Title V permit.³⁴

The draft CAAPP for the USS-GCW facility contains numerous instances where emission limits are stated but the permit lacks periodic monitoring requirements sufficient to assure compliance with those limits. In some cases, the draft permit fails to require any periodic monitoring. In other cases, the draft permit contains monitoring requirements that are insufficient to assure compliance with the applicable emission limits. Both situations violate Title V/CAAPP.

A. Emission Limits Without Corresponding Monitoring Requirements Violate the Clean Air Act.

On numerous occasions in the draft CAAPP, the permit recites emission limits but provides no periodic monitoring to assure that USS-GCW is operating in compliance with the limit. This clearly violates both federal and state law:

Each permit shall contain the following requirements with respect to monitoring:
(A) Where the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring..., periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit.

40 C.F.R. § 70.6(a)(3)(i)(B).

To meet the requirements of this subsection with respect to monitoring, the permit shall:

(i) Where the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring..., require periodic monitoring sufficient to yield reliable data from the relevant time period that is representative

³³ *Sierra Club v. EPA*, 536 F.3d 673 (D.C.Cir., 2008), relying on 42 USC §7661c(b) and (c) and 40 CFR § 70.6(c)(1). See comparable language in 415 ILL. COMP. STAT. 5/39.5(7)(b).

³⁴ United States Environmental Protection Agency, *2004 Review of Illinois' Title V Operating Permit Program*, Oct. 30, 2006, at 6 (p. 9 of pdf). Attached hereto as Exhibit 16.

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of the source's compliance with the permit.
 415 ILL. COMP. STAT. 5/39.5(7)(d)(i).

As succinctly stated by the D.C. Circuit:

Where the applicable requirement does not require periodic testing, subsection 70.6(a)(3)(i)(B) *obliges the permitting authority to add to the permit 'periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit.'*³⁵

Thus, where no periodic monitoring requirements are established in the pre-existing applicable requirements, IEPA not only can but *must* add periodic monitoring requirements to the CAAPP. Thus, where the draft CAAPP states emission limits without corresponding monitoring requirements, IEPA must revise the permit to require periodic monitoring sufficient to ensure compliance.

B. Emission Limits With Inadequate Monitoring Requirements Require Supplementation.

On several occasions, the draft CAAPP permit provides for some monitoring, but it is not sufficient to ensure that USS-GCW is complying with applicable emission limitations. In the past, there was some confusion – engendered by shifting positions at EPA – as to whether permitting authorities could, must, or could not supplement inadequate monitoring provisions to make them sufficient to ensure compliance. That confusion is now behind us. In the D.C. Circuit decision cited above, the court made clear that the Clean Air Act expressly requires augmentation where monitoring requirements exist but are not adequate to ensure compliance.

Title V requires that “[e]very one” of the permits issued by permitting authorities include adequate monitoring requirements. ... Under the “[e]ach permit” mandate, state and local authorities must be allowed to cure these monitoring requirements before including them in permits. ... *We read Title V to mean that somebody must fix these inadequate monitoring requirements.*”³⁶

The D.C. Circuit's decision construed the Clean Air Act and implementing regulations:

Each permit issued under this subchapter shall set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions. Such monitoring and reporting requirements shall conform to any applicable regulation under subsection (b) of this section.³⁷

³⁵ *Sierra Club v. EPA*, 536 F.3d 673, 675 (2008) (quoting 40 C.F.R. § 70.6(a)(3)(i)(B)) (emphasis added).

³⁶ *Sierra Club v. EPA*, 536 F.3d at 678 (emphasis added).

³⁷ 42 USC 7661c(c).

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All part 70 permits shall contain the following elements with respect to compliance: . . . monitoring . . . requirements sufficient to assure compliance with the terms and conditions of the permit.”

The Illinois Environmental Protection Act both compels IEPA to meet the standards of the Clean Air Act and provides similar (although potentially less protective) language requiring supplemental monitoring where necessary to ensure compliance:

The Agency shall include among such conditions applicable monitoring . . . that the Agency deems necessary to assure compliance with the Clean Air Act, the regulations promulgated thereunder, this Act, and applicable Board regulations.³⁸

In short, both federal and state law require inadequate periodic monitoring that fails to assure compliance with applicable emission limits to be supplemented so as to assure compliance.

C. The Following Draft CAAPP Permit Conditions Need Revisions to Satisfy Monitoring Requirements.

The IEPA must revise the draft CAAPP permit to cure monitoring gaps and inadequacies in order to satisfy the legal requirements set forth above. Specific problems are set forth below.

1. Section 5.3 – Source-Wide Applicable Provisions and Regulations

a. Conditions Involving Fugitive Particulate Matter

The following draft CAAPP source-wide permit conditions set forth limits on fugitive particulate matter emissions, yet the draft CAAPP fails to require periodic monitoring to determine compliance with the limits, and fails to specify the frequency with which monitoring must take place:

(1) Condition 5.3.2 a. – Prohibits the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind is greater than 25 miles per hour.

(2) Condition 5.3.2.c.i – Sets opacity limit of 10 percent from fugitive particulate matter emissions generated by the crushing or screening of slag, stone, coke or coal.

(3) Condition 5.3.2.c.iii. – Sets an opacity limit of 5 percent from fugitive particulate matter from any roadway or parking area located at a slag processing facility or integrated iron and steel manufacturing plant.

³⁸ 415 ILL. COMP. STAT. 5/39.5(7)(b).

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The previously-quoted segment from USEPA's 2004-2006 review of the IEPA's Title V program underscored the need for monitoring to ensure compliance with opacity limitations:

USEPA has commented that, for mass emission limitations, control efficiency requirements, opacity limitations, or other similar limits, compliance cannot be directly demonstrated with a record. For this type of limit, for which there is potential for a violation, the permitting authority must include some periodic monitoring in the Title V permit.³⁹

Daily observations using EPA Method 9 are supported by EPA Region VII guidance⁴⁰ on opacity monitoring for Title V permits.⁴¹ The guidance document states "Method 9 is the preferred visual observation method. To the extent practicable, a source should attempt to record daily opacity measurements on each emissions point subject to an opacity standard."

IEPA should revise the draft CAAPP permit to require USS-GCW to conduct daily inspections using Method 9 to ensure USS-GCW's compliance with the above-listed source-wide emission limits for fugitive particulate matter.

b. Opacity Limits Related to Emission Units

The following draft CAAPP source-wide permit conditions set forth opacity limits for emissions from emission units, yet the draft CAAPP fails to require periodic monitoring to determine compliance with the limits, and fails to specify the frequency with which monitoring must take place:

(1) Condition 5.3.2 b. – Prohibits the emission of smoke or other particulate matter with an opacity greater than 30 percent into the atmosphere from any emissions unit other than those emission units subject to 35 IAC 212.122.

(2) Condition 5.3.2 d.i.B. – Sets an opacity limit of 5 percent for continuous caster spray chambers or continuous casting operations at steel plants in the vicinity of Granite City.

³⁹ United States Environmental Protection Agency, *2004 Review of Illinois' Title V Operating Permit Program*, Oct. 30, 2006, at 6 (p. 9 of pdf). Attached hereto as Exhibit 16.

⁴⁰ U.S. Environmental Protection Agency, *Region VII Guidance on Periodic Monitoring for Opacity*, Apr. 18, 1997, available at <http://www.epa.gov/region07/programs/artd/air/title5/t5memos/opacity.pdf>. Attached hereto as Exhibit 15.

⁴¹ U.S. Environmental Protection Agency, *Region VII Guidance on Periodic Monitoring for Opacity*, Apr. 18, 1997, at 3, available at <http://www.epa.gov/region07/programs/artd/air/title5/t5memos/opacity.pdf>. Attached hereto as Exhibit 15.

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As noted above, USEPA has underscored the need for monitoring to ensure compliance with opacity limits.⁴² The use of COMS is supported by EPA Region VII guidance on opacity monitoring for Title V permits: "COMS are appropriate for vents or stacks which carry a major portion of the plant's particulate or other condensable emission streams."⁴³

IEPA should revise the draft CAAPP permit to require USS-GCW to use COMS on applicable emission units to ensure that USS-GCW's compliance with the above-listed opacity limits.

c. PM and PM10 Limits

The following draft CAAPP permit conditions set forth particulate matter emission limits, yet the draft CAAPP fails to require periodic monitoring to determine compliance with the limits, and fails to specify the frequency with which monitoring must take place:

(1) Condition 5.3.2.d.i.A – Specifies a particulate matter emission limit of 22.9 mg/scm (0.01 gr/scf) from any process emissions unit located at integrated iron and steel plants in the vicinity of Granite City.

(2) Condition 7.6.3-1.b.i. – Same as (1) above

(3) Condition 5.3.2 d.i.C. – Specifies a PM10 emissions limit of 32.25 ng/J (0.075 lbs/mmbtu) of heat input from the burning of coke oven gas at all emission units, other than coke oven combustion stacks, at steel plants in the vicinity of Granite City.

(4) Condition 5.3.2 d.i.D. – Specifies a PM10 emission limit of 38.7 ng/J (0.09 lbs/mmbtu) of heat input for the slab furnaces.

(5) Condition 5.3.2 d.i.E. – Specifies a PM10 emission limit of 2.15 ng/J (0.005 lb/mmbtu) of heat input from the steel works boilers located at the steel making facilities at steel plants in the vicinity of Granite City.

(6) Condition 5.3.2 d.i.F. – Specifies a PM10 emission limit of 27.24 kg/hr (60 lbs/hr) and 0.1125 kg/Mg (0.225 lbs/T) of total steel in process, whichever limit is more stringent, for the total of all basic oxygen furnace processes described in 35 IAC 212.446(a) of [35 IAC Part 212] Subpart R and measured at the BOF stack located at steel plants in the vicinity of Granite City.

Because these limits apply on a continuous basis, the draft CAAPP permit should be revised to require the use of PM CEMS (continuous emission monitoring systems). PM CEMS provide periodic monitoring and are sufficient to assure compliance with this limit. PM CEMS are currently utilized in a wide range of settings, and will be used on the new coke plant currently under construction at the USS-GCW facility.⁴⁴ PM CEMs have

⁴² See USEPA review of IEPA Title V program, quoted and cited in section IV.A.1.a above, on the need for opacity monitoring in Title V permits.

⁴³ U.S. Environmental Protection Agency, *Region VII Guidance on Periodic Monitoring for Opacity*, Apr. 18, 1997, at 3, available at <http://www.epa.gov/region07/programs/artd/air/title5/t5memos/opacity.pdf>. ("Method 9 is the preferred visual observation method. To the extent practicable, a source should attempt to record daily opacity measurements on each emissions point subject to an opacity standard.") Attached hereto as Exhibit 15.

⁴⁴ Permit 06070020, condition 4.1.8-1.b. Attached hereto as Exhibit 9.

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become commonplace in multiple industrial applications including utilities, pulp mills, copper smelters and refineries.^{45,46} U.S. EPA requires the use of PM CEMS in regulation as well. 40 CFR §60.42 Subpart Da requires PM CEMs for utility boilers and 40 CFR §63.11149(b) requires PM CEMS for copper smelters. If IEPA documents that PM CEMS are not feasible for any of the process emissions units subject to the above PM emission limit, then the draft CAAPP permit should be revised to require annual stack tests using Methods 1-5.

2. Section 5.6 – Source-Wide Production and Emission Limitations

Conditions 5.6.3 b.iii.A. through C set maximum annual emissions limits for PM, PM10, SO₂, NO_x, VOM, CO, and lead from combustion of natural gas, blast furnace gas (BFG), and fuel oil by blast furnaces A and B, boilers 1 – 10 and 11 and 12, ladle drying preheaters, and BFG flares. These annual emission limits appear to be set using emissions factors. The limits and emissions factors are from Table 4 of the production increase permit.⁴⁷ The draft CAAPP permit lacks any requirement that USS-GCW conduct periodic monitoring to ensure compliance with these annual limits. In addition, neither the draft CAAPP permit nor the Project Summary contains a factual basis for the emission factors listed in sections 5.6.3 b.iii.A. through C. This omission violates 40 CFR §70.7(a)(5), which states that the permitting authority “shall provide a statement that sets forth the legal and factual basis for the draft permit conditions.”

The draft CAAPP should be revised to specify periodic monitoring to assure compliance with the above emission limits. At the very least, the recordkeeping requirements set forth in the production increase permit from which these fuel-based emission limits are derived should be set forth in the revised CAAPP.

3. Subsection 7.1 – Coal Handling Operations

The draft CAAPP lacks necessary monitoring requirements and frequency to demonstrate compliance with the PM10 emission limitation in condition 7.1.3.f.

Condition 7.1.3.f cites 35 IAC 212.458(b)(7) in specifying a PM10 emission limit of 0.01 gr/scf during any one hour period from process emission units. Assuming that two apparent typographical errors are corrected,⁴⁸ condition 7.1.7.a notes a variety of methods

⁴⁵ *Particulate Monitoring in Wet Scrubbed Stacks: New Rules/New Opportunities*; Shaw Stone & Webster; October 26, 2006, at 31-39, attached as Exhibit 43.

⁴⁶ PM CEMS: The Current Reality of Monitoring Particulate Matter; Hauner, Clapsaddle and Noland; PowerGen2006 at 1 as Exhibit 44.

⁴⁷ Illinois Environmental Protection Agency, Construction Permit Number 95010001. U.S. Steel Corporation – Granite City, June 25, 2002, condition 22 and Table 4. Attached hereto as Exhibit 17.

⁴⁸ Typo 1: Condition 7.1.7.a mentions testing in connection with PM₁₀ limits established in condition 7.1.3(e). However, condition 7.1.3(e) sets opacity limits for fugitive PM₁₀; the 0.01 gr/scf PM₁₀ standard is instead set forth in condition 7.1.3(f), which should be referenced instead of 7.1.3(e) in condition 7.1.7.a. Typo 2: In listing various PM₁₀ measurement methods, condition 7.1.7.a refers to 35 IAC 21.108. We assume this was meant to refer instead to 35 IAC 212.108.

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that USS-GCW might use if it elects to determine the amount of PM₁₀ emissions from its process emission units (presumably the coal pulverizer in this context). However, the draft CAAPP does not require USS-GCW to undertake any actual monitoring of PM₁₀ emissions from the facility's considerable coal handling operations, or specifically from the coal pulverizer. See condition 7.1.9: "Monitoring requirements are not set for the affected coal handling operations."

In addition to requiring that monitoring in fact occur, the CAAPP permit must specify the frequency of such monitoring such that "reliable data from the relevant time period" are obtained. Condition 7.1.7.d requires testing for PM₁₀ concentration levels in the air stream controlled by the coal pulverizer baghouse – but not until "time of CAAPP renewal." Thus, no testing is required during and for the purposes of compliance with this CAAPP. In addition, testing only after five years is not adequate to demonstrate compliance with the emission limit, which is given on a per hour basis.

Because the PM₁₀ limit in condition 7.1.3.f applies on an hourly basis, the draft CAAPP should be revised to require USS-GCW to employ a PM CEMS⁴⁹ to conduct an annual stack test to ensure that PM₁₀ emissions from the coal pulverizer are in compliance with the above permit limits.

4. Subsection 7.2 Coke Production

a. Coke Oven Charging, Door Leaks, Lid Leaks, Offtake System Leaks – Visible Emissions

Conditions 7.2.3-1, 7.2.3-2, 7.2.3-3, and 7.2.3-4 set various limits on visible emissions from coke oven charging, and from leaks from coke oven doors, lids, and offtake systems, based on state regulations, a state-issued permit for coke oven Battery B, and federal MACT regulations. Although condition 7.2.7-3.a requires daily observations by certified observers to determine compliance with visible emission limits in the MACT regulations, the draft CAAPP lacks monitoring requirements sufficient to determine compliance with the numerous other, and different, visible emission limits based on the state regulations and the state-issued permit. And although condition 7.2.14 provides methods that could be used if USS-GCW elected to monitor for compliance with such limits, the draft CAAPP does not actually require USS-GCW to do so. The draft CAAPP permit must be revised to require daily monitoring designed to ensure that USS-GCW is complying with the visible emission limits in conditions 7.2.3-1.a and c, 7.2.3-2.a and b, 7.2.3-3.a and b, and 7.2.3-4.a and b.

b. Coke Oven Battery Combustion Stacks – PM Emissions

The draft CAAPP lacks necessary monitoring requirements and frequency to demonstrate compliance with the PM emission limitations in condition 7.2.3-7. The

⁴⁹ Please see comment 5.b. for our discussion on the availability of PM CEMS for industrial sources.

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lack of periodic monitoring is a specific issue identified in EPA's 2004 review of the IEPA Title V permitting program.⁵⁰ USEPA wrote:

USEPA has commented that, for mass emission limitations, control efficiency requirements, opacity limitations, or other similar limits, compliance cannot be directly demonstrated with a record. For this type of limit, for which there is potential for a violation, the permitting authority must include some periodic monitoring in the Title V permit.⁵¹

Condition 7.2.3-7.a.i limits particulate matter emissions from coke oven combustion stacks to 110 mg/dscm (0.05 gr/dscf), pursuant to 35 IAC 212.243(g). Condition 7.2.3-7.c limits non-sulfate particulate emissions from battery B to 0.03 gr/dscf, pursuant to permit #82060043. Other provisions within condition 7.2.3-7 set opacity limits for emissions from the coke oven battery combustion stacks. Although the draft CAAPP requires a COMS to monitor for opacity, it does not require monitoring of PM emissions to ensure compliance with the aforementioned PM limits.

Because the PM limits must be met on a continuous base, the draft CAAPP should be revised to require the use of a PM CEMS. CEMS for PM are available and feasible for use on coke oven batteries. IEPA and SunCoke/Gateway Energy and Coke Company recognized that reality, as the permit issued for the new coke plant currently under construction at the USS-GCW facility requires the use of a CEMS to measure for PM, PM CEMS.⁵² PM CEMS have become commonplace in multiple industrial applications including utilities, pulp mills, copper smelters and refineries.⁵³ U.S. EPA requires the use of PM CEMS in regulation as well. 40 CFR §60.42 Subpart Da requires PM CEMS for utility boilers and 40 CFR §63.11149(b) requires PM CEMS for copper smelters.

Inasmuch as IEPA intended for the COMS, which monitors for opacity, to be used to determine USS-GCW's compliance with the PM limits in condition 7.2.3-7, that would violate the Title V requirements of both periodic monitoring and practical enforceability. In 2003, IEPA issued a CAAPP permit for the Midwest Generation, Waukegan Generating Station (Waukegan), relying on COMS to determine the facility's compliance with PM limitations. In response to a Title V petition, the Administrator of the U.S. EPA found the permit deficient on both periodic monitoring and enforceability grounds. In terms of periodic monitoring, the Administrator stated as follows:

While opacity from a boiler stack is a good indicator of boiler operation and combustion efficiency, an exact correlation between opacity and PM limits can be

⁵⁰ Review of Illinois' Title V Operating Permit Program, United States Environmental Protection Agency Region V, August 2004 as Exhibit 16.

⁵¹ Exhibit 16 at 6.

⁵² See Permit 06070020, condition 4.1.8-1.b. Attached hereto as Exhibit 9.

⁵³ *Particulate Monitoring in Wet Scrubbed Stacks: New Rules/New Opportunities*; Shaw Stone & Webster; October 26, 2006, at 31-39. attached as Exhibit 43.

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difficult to establish. Accordingly, we are unable to determine, based on the information contained in the permit record, whether opacity monitoring is an appropriate surrogate for monitoring PM emission limits.

* * *

The permit does not make a clear connection between the continuous opacity monitoring and the PM emission limitation, nor does the permit provide sufficient information to determine compliance through the indication of the proper operation of the ESP. Therefore, since additional periodic monitoring terms are needed to assure compliance with the PM limit, the petition is granted on this issue pursuant to 40 C.F.R. § 70.6(a)(3)(i)(B). IEPA must include a specific opacity limit or a method for determining an opacity limit that would correlate the results of the PM testing and the opacity limit in a manner that assures compliance with the PM limit, and must incorporate into the permit specific operational limits (upper level or lower level) and/or operational ranges or a method for determining the ranges.”⁵⁴

Periodic monitoring was not the only problem with the IEPA’s use of COMS to determine compliance with the PM limits in the Waukegan case. Practical enforceability was also a fatal problem:

Neither the permit nor the permit record explains or defines how to determine the range of opacity measurements that assure compliance with the PM emission limitations, or the criteria to determine what must be included in or excluded from a normal range. Therefore, the petition is granted on the issue of practical unenforceability. IEPA must identify the normal range of opacity emissions that assures compliance with the PM emissions limitations, develop criteria for determining the normal range, or develop another means to monitor compliance with the PM emission limitations.⁵⁵

In the five years since EPA issued the Waukegan permit, PM CEMS have become far more prevalent – as demonstrated by the SunCoke/Gateway permit at this very facility. IEPA should revise the draft CAAPP to require the use of a PM CEMS to satisfy the periodic monitoring and practical enforceability requirements regarding the PM limitations.

c. Bypass/Bleeder Stack (Flare) – Visible Emissions

Condition 7.2.3-8.b states that the bypass/bleeder flare shall be operated with “no visible emissions.” While condition 7.2.3-8.b. references the MACT regulation that specifies

⁵⁴ *In The Matter of Midwest Generation, LCC, Waukegan Generating Station*; Petition number V-2004-5; CAAPP No. 95090047, Sept. 22, 2005, 2005 EPA CAA Title V LEXIS 14, at *50-51.

⁵⁵ *In The Matter of Midwest Generation, LCC, Waukegan Generating Station*, Petition number V-2004-5; CAAPP No. 95090047, Sept. 22, 2005, 2005 EPA CAA Title V LEXIS 14, at *31-32.

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methods for monitoring visible emissions from flares, 40 CFR § 309(h)(1), the draft CAAPP does not expressly require USS-GCW actually to undertake monitoring of the flares' emissions to ensure compliance with the governing regulations, and does not specify the frequency with which any monitoring should occur.

The draft CAAPP permit should be revised to require that USS-GCW undertake monitoring on a daily basis to ensure that it is complying with the no visible emissions limitation.

Moreover, the methods set forth in the MACT regulations are inadequate to ensure that the flare is complying with the relevant emission restrictions on this bypass flare. The draft CAAPP permit should be revised to require continuous flow and VOC monitoring and periodic tests using DIAL or other similar techniques for other regulated pollutants. Root cause analysis should be required for unplanned flaring events to identify causes and take steps to prevent them. These measures are routinely implemented at refineries in the Bay Area Air Quality Management District under Regulation 12, Rules 11 and 12 and South Coast Air Quality Management District under Rule 1118.

d. Coke Oven Battery Emissions

Section 7.2 lacks necessary monitoring, record keeping and reporting to demonstrate compliance with numerous emission limits specified in condition 7.2.6.b.ii. Condition 7.2.6.b.ii sets the following annual emission limits from the coke oven combustion battery stacks in tons per year:

Carbon monoxide (CO)	50
Sulfur dioxide (SO ₂)	20
Particulate matter (PM)	7.5
Volatile organic materials (VOM)	20
Nitrogen oxides (NO _x)	20

The CAAPP states that these limits come from construction permit 04110018. Condition 7.2.6.b.iv of the draft CAAPP states that compliance with the limits will be determined on a calendar year basis. The draft CAAPP does not specify any monitoring method or frequency for CO, SO₂, VOM, or NO_x. The description in section 7.2.1 of the permit states that all of the pollutants listed above are possible emissions for coke production, particularly the underfiring process. Recording keeping and reporting requirements to demonstrate compliance are also absent.

Based on the lb/hour emission rates in the 2007 annual emission report and 8760 hours of operation per year the calculated emissions in tons per year are as follows:

Carbon monoxide (CO)	33.7
Sulfur dioxide (SO ₂)	1044.7 (over 50x limit)
Particulate matter (PM)	35.6 (over 4x limit)
Volatile organic materials (VOM)	1.02

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Nitrogen oxides (NO_x)

585.9 (almost 30x limit)

The actual emissions of NO_x, PM, and SO₂ are well above the annual emission limits in condition 7.2.6.b.ii.

The Title V Technical Reference Document⁵⁶ lists the likelihood of violating an emission limit as a primary consideration in determining what type of monitoring should be used. The Title V Technical Reference Document identifies CEMS as a reasonable method for monitoring and ensuring compliance.⁵⁷ As the combustion batteries' emissions are currently well above established emission limits, it is quite probable that violations of these limits will occur in the future. Additionally, CEMS are available and should be installed to for SO₂, PM,⁵⁸ and NO_x in order to monitor compliance with these emission limits. NO_x CEMS are feasible and utilized at industrial facilities including other steel production facilities.^{59,60,61} SO₂ CEMS are also available.^{62,63} The CEMS should be operated in compliance with Performance Specification 2 and Performance Specification 11 in 40 CFR Part 60 Appendix B. The CEMS can also be used to determine compliance with additional hourly limits discussed below. IEPA should revise Section 7.2.9 of the draft CAAPP to require CEMS for determining compliance with the applicable limits for SO₂, PM, and NO_x.

With respect to the VOM limit, annual stack tests are sufficient to demonstrate compliance because there is a large buffer between the current emission level and the annual VOM emissions limit. The draft CAAPP should be revised to require annual stack tests to determine compliance with the applicable VOM limits. Appropriate recordkeeping and reporting must also be included in sections 7.2.11 and 7.2.12.

In addition to the requirements in condition 7.2.6.b.ii, additional requirements from the following three regulations should be added to the draft CAAPP, as applicable requirements for the coke ovens:

Regulation	Pollutant	Limit	Applicability
35 IAC 216.121	CO	200 ppm	Combustion emission sources with heat input greater than 2.9 MW

⁵⁶ U.S. Environmental Protection Agency, *Title V Monitoring Technical Reference Document*, Draft, April 2001, at 18, 51. Attached hereto as Exhibit 18.

⁵⁷ U.S. Environmental Protection Agency, *Title V Monitoring Technical Reference Document*, Draft, April 2001, at 11-xxviii, Table 5-1. Attached hereto as Exhibit 18.

⁵⁸ See comment 5.b. discussing the need for PM CEMS to demonstrate compliance with a PM emission limit in draft CAAPP permit condition 7.2.3-7.a.i.

⁵⁹ Nucor Steel Auburn Inc., Permit ID 7-0501-00044/00007, effective May, 2001; various monitoring conditions including Condition 3-22, Item 3-22.2. and Condition 3-23, Item 3-23.2 as Exhibit 46.

⁶⁰ North Star Steel Arizona; Permit No. 1000992; May 7, 2002; Condition III.B.4.a. as Exhibit 47.

⁶¹ CF&I Steel, L.P dba Rocky Mountain Steel Mills, Operating Permit Number 95OPPB097, December 1, 2001, Condition 12.8 at 49 and 50 as Exhibit 45.

⁶² Exhibit 47 at Condition III.B.4.a.

⁶³ Exhibit 45 at Condition 12.8 at 49 and 50.

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35 IAC 214.421	SO ₂	Variable	Fuel combustion emission sources at steel mills in the St. Louis metro area
35 IAC 217.141(a)	NO _x	0.46 kg/MW-hr of heat input for gaseous fuel	Fuel combustion emission sources with heat input equal or greater than 73.2 MW in the St. Louis metropolitan area

USS-GCW's 2007 annual emission report states that coke oven gas is used to fuel the coke ovens. It states that the heat input for ovens A and B was 125.6 and 124.8 MMBTU/hr. Converting these values to the applied units yields values of 36.81 and 36.58 MW. This clearly indicates that USS-GCW is required to comply with 35 IAC 216.121.

35 IAC 214.421 Combustion of Fuels at Steel Mills in Metropolitan areas also applies to the combustion battery stacks. The regulation establishes hourly SO₂ emission limits for combustion sources such as the coke oven batteries.

The definition of "source" applied in 35 IAC 217.141 comes from 35 IAC part 211 and indicates that all combustion emissions at USS-GCW fall under a single source.⁶⁴ The combined heat input of both ovens equals 73.39 MW. Considering also the heat input to the numerous boilers at USS-GCW, the total heat input well exceeds 73.2 MW and thus 35 IAC 217.141 is applicable. It is questionable whether USS-GCW is in compliance with the NO_x emission limit in 35 IAC 217.141. From the 2007 annual emissions report, the hourly emission rate of NO_x is listed as 133.767 lbs/hr (60.676 kg/hr) for battery A. This gives an emission per energy consumed value of 1.659 kg/MW-hr; approximately three and a half times the NO_x emissions rate limit in 35 IAC 217.141. Similar results are achieved if the same calculations are performed for battery B.

IEPA should revise the draft CAAPP to include these three applicable regulations (35 IAC 216.121, 35 IAC 214.421, and 35 IAC 217.141) in section 7.2.3-7. IEPA should require the use of CEMS to ensure compliance with the emission limits in these regulations. As stated earlier in this comment CEMS are readily available for NO_x and SO₂ and are appropriate because the emission limitations are hourly. CO CEMS are also available and appropriate because the emission limit is concentration based^{65,66}. Appropriate recordkeeping and reporting must also be included in sections 7.2.11 and 7.2.12.

5. Subsection 7.3 Coke Oven Gas By-Products Recovery Plant

⁶⁴ 35 IAC 211.6130 states: "'Source' means any stationary source (or any group of stationary sources) that are located on one or more contiguous or adjacent properties that are under common control of the same person (or persons under common control) and that belongs to a single major industrial grouping.

⁶⁵ Exhibit 46 at Condition 3-8, Item 3-8.2.

⁶⁶ Exhibit 47 Condition III.B.4.a.

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a. Flares – Exit Velocity and Heat Content

Condition 7.3.6e.iii gives the operator a variable limit on the exit velocity and heat content of flares and section 7.3.8 specifies methods for calculating these limits and testing methods to determine the actual tip velocity and heat content. The permit, however, does not actually require these test methods to ever be performed. The permit contains no frequency of testing, record keeping, or reporting sufficient to yield reliable data representative of the source's compliance with this condition of the permit. At a minimum there should be annual testing to demonstrate compliance with this condition.

b. Flares – No Visible Emissions

Condition 7.3.10.a.i states that flares are to be operated with no visible emissions, and condition 7.3.10.a.iii states that they should be monitored to ensure that they are properly operated and maintained, but the draft CAAPP does not require USS-GCW to undertake monitoring sufficient to assure compliance with the no visible emissions limit. In addition, the draft CAAPP does not specify any frequency with which operational or emissions monitoring should occur. The draft CAAPP permit should be revised to require continuous video monitoring of flares to demonstrate USS-GCW's compliance with the no visible emissions limitation.⁶⁷

6. Subsection 7.4 Blast Furnace Operations

a. BFG Excess Gas Flare

Condition 7.4.2 of the draft CAAPP permit lists a "blast furnace excess gas flare" in the column of the table which describes emission control equipment for the Blast Furnace operations. The draft CAAPP permit does not specify explicitly which gases are flared, although it appears that the flare burns excess blast furnace gas generated as a by-product in the blast furnaces. The draft CAAPP permit, however, completely fails to establish whether any regulations apply to the flare. At a minimum, the CAAPP permit should be revised to require the BFG flare to comply with source-wide permit Condition 5.3.2.b, which states:

Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, except as allowed by 35 IAC 212.123(b) and 212.124.

The 30 percent opacity limit described above apparently applies to the flare, and must be identified as an applicable standard in Condition 7.4.3-1 of the draft CAAPP permit. Because the opacity limit applies, the draft CAAPP permit must also require USS-GCW to monitor the flare, in order to yield reliable data that are representative of USS-GCW's

⁶⁷ U.S. Environmental Protection Agency, *Title V Monitoring Technical Reference Document*, Draft, April 2001, at 16-liv, Table 6-4. Attached hereto as Exhibit 18.

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compliance with the limit. The draft CAAPP permit should be revised to require continuous video monitoring of flares to demonstrate USS-GCW's compliance with the no visible emissions limitation.⁶⁸

b. BFG Opacity Limits

Condition 7.4.3-1 of the draft CAAPP permit states that certain opacity limits apply to blast furnace operations for uncaptured emissions and emissions from control equipment, as specified in 35 IAC 212.445(a)-(b). Condition 7.4.7-2.c, moreover, requires that testing procedures (described in 7.4.7-2.b) used to demonstrate compliance with these limits be performed on a *monthly basis*. This requirement fails to establish testing sufficiently frequent to assure compliance with the opacity limits in 35 IAC 212.445.⁶⁹ In lieu of monthly visual emissions testing, and in addition to the ongoing use of bag leak detection systems, the draft CAAPP permit should be revised to require continuous compliance demonstrations through the installation, certification, operation, and monitoring of a COMS on the casthouse baghouse and the iron spout baghouse. The use of COMS at the casthouse baghouse and iron spout baghouse emissions points is supported by a EPA Region VII guidance document on opacity monitoring for Title V permits⁷⁰ which states: "COMS are appropriate for vents or stacks which carry a major portion of the plant's particulate or other condensable emission streams."

c. Stack Testing

Condition 7.4.7-2.b.ii.A of the draft CAAPP permit requires stack testing to demonstrate compliance with the emission limits of 35 IAC 212.445(b)(1). Condition 7.4.7-2.c further specifies that such stack testing shall be performed in 2.5 year intervals. In order to generate data sufficient to assure compliance with the terms and conditions of the CAAPP permit, stack testing should be required annually, together with the additional monitoring per EPA's considerations outlined below.

EPA does not consider annual stack testing alone adequate; therefore it would not consider a less frequent periodic monitoring test, such as stack testing every 2.5 years per 7.4.7-2(c), adequate:

EPA does not usually consider annual stack testing to be adequate periodic monitoring (except for some units without control devices). Also, the results of an annual test alone would not constitute an adequate basis for the annual certification of compliance that the facility is required to submit for this unit which utilizes control equipment to reduce emissions. To provide reasonable

⁶⁸ U.S. Environmental Protection Agency, *Title V Monitoring Technical Reference Document*, Draft, April 2001, at 16-liv, Table 6-4. Attached hereto as Exhibit 18.

⁶⁹ Please see discussion of continuous compliance for opacity limits in U.S. Environmental Protection Agency, Region 7, *Region 7 Policy on Periodic Monitoring for Opacity*, Apr. 18, 1997. Attached hereto at Exhibit 15.

⁷⁰ U.S. Environmental Protection Agency, Region 7, *Region 7 Policy on Periodic Monitoring for Opacity*, Apr. 18, 1997 at 2. Attached hereto at Exhibit 15.

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assurance of compliance, the annual stack testing will have to be supplemented with additional monitoring.⁷¹

Thus, periodic monitoring must be revised in the USS-GCW CAAPP permit to require annual stack testing along with additional monitoring in order for USS-GCW to comply with emission limitations.

d. SO₂, NO_x, and VOM Limits from Emission Units

Conditions 7.4.6.b-f of the draft CAAPP permit specify emission limitations in tons/year for SO₂, NO_x, and VOM emissions from certain emission units (see below). These limitations were carried forward from Construction Permit #95010001.⁷² However, Permit #95010001 did not specify any direct monitoring requirements to test compliance with these emission limits after the initial stack and opacity tests, and neither does the draft CAAPP permit. Consequently, the draft CAAPP fails to require any periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of USS-GCW's compliance with these emission limits. The lack of periodic monitoring is a specific issue identified in EPA's 2004 review of the IEPA Title V permitting program.⁷³ This omission affects the following emission limits:

i. Casthouse Baghouse (furnace tapping) emissions:

1. Condition 7.4.6.b specifies an emission limit for SO₂ of 422.0 tons/year, but the draft CAAPP lacks a periodic monitoring requirement to determine whether USS-GCW is operating in compliance with this limit. Condition 5.12.2.c of the draft CAAPP permit states: "The compliance calculations shall be the primary compliance method for determining compliance with the emission limits in this permit, *except for the blast furnace casthouse baghouse and iron spout*

⁷¹ Final Opening Brief of Petitioners Sierra Club in *Sierra Club v. EPA*, 536 F.3d 673 (D.C. Cir. 2008), Nov. 9, 2007 (quoting Letter from EPA to Florida Department of Environmental Protection regarding EPA's Review of Proposed Title V Permit for LFC NO. 47 Corporation, Permit No. 0650001-001-AV (September 9, 1999) (OAR-2003-0179-0232) [JA-717-718]). *See also* Final Opening Brief of Petitioners Sierra Club, Nov. 9, 2007 ("[T]he results of an annual [stack] test alone would not constitute an adequate basis for the annual compliance certification that the facility is required to submit for these units in order to certify continuous compliance with the pound/hour particulate matter limit' at a coal-fired power plant." (quoting Letter from EPA to Florida Department of Environmental Management objecting to proposed Title V permit for the Florida Power Corporation Crystal River Plant (November 1, 1999) [JA 383])). Attached hereto as Exhibit 22.

⁷² Condition 39(a)(i) of Production Increase Permit #95010001 required blast furnace stack tests for emissions of SO₂, NO_x, and VOM, and an opacity test, in order to verify compliance with 35 IAC 212.445 and with the rest of the Permit (i.e. the emission limits listed in attached Tables 1 and 5). Illinois Environmental Protection Agency. Construction Permit Number 95010001. U.S. Steel Corporation – Granite City, June 25, 2002. Attached hereto as Exhibit 17. The stack tests were to be completed within 270 days of the issuance of Permit #95010001. No further testing requirements were specified in the Permit. Moreover, the emission limits in Construction Permit #95010001 were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). According to EPA Region 9's Periodic Monitoring Guidelines, monitoring in PSD permits is *not presumptively adequate* to assure compliance with the limit. U.S. Environmental Protection Agency, Region 9, *Guidelines: Periodic Monitoring*, Sept. 09, 1999, Attached hereto at Exhibit 19.

⁷³ Exhibit 16 at 6.

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baghouse, for which stack testing shall be the primary means of determining compliance." However, the draft CAAPP does not require USS-GCW to conduct any stack tests during the term of the draft CAAPP or otherwise to monitor SO₂ emissions from the casthouse baghouse. In its response to questions posed by IEC at the public hearing on the draft CAAPP, IEPA stated that the draft CAAPP permit did not require any stack testing for SO₂ emissions from either the casthouse baghouse or the iron spout baghouse.⁷⁴ IEPA should address this inconsistency before it issues the final CAAPP permit. Moreover, the draft CAAPP should be revised to require periodic monitoring to ensure USS-GCW's compliance with the permit limit. Because CEMS for SO₂ are readily available, the SO₂ emissions limit is substantial, and CEMS is the only truly reliable means of generating data sufficient to show continuous compliance with a limit, the revised CAAPP should require USS-GCW to install, certify, operate, and maintain a CEMS to monitor its SO₂ emissions to ensure its compliance with the permit limit.⁷⁵

2. Condition 7.4.6.b specifies an emission limit for NO_x of 22.79 tons/year), but the draft CAAPP lacks a periodic monitoring requirement to determine whether USS-GCW is operating in compliance with this limit. The draft CAAPP should be revised to require an annual stack test to demonstrate compliance with this yearly limit. Draft EPA guidance supports the use of periodic stack testing to ensure compliance with emissions limits.⁷⁶ The NO_x emission test should be conducted according to one of the applicable methods (Method 7, 7A, 7B, 7C, 7D or 7E) specified in 40 CFR Part 60, Appendix A.⁷⁷

3. Condition 7.4.6.b specifies an emission limit for VOM of 149.68 tons/year, but the draft CAAPP lacks a periodic monitoring requirement to determine whether USS-GCW is operating in compliance with this limit. 35 IAC 219.301 requires that organic material emissions not exceed 8.0 pounds per hour (3 kg/hr). The draft CAAPP permit, however, does not require any monitoring to determine compliance with these limits. The draft CAAPP permit should be revised to require USS-GCW to determine compliance with these limits by conducting an annual stack test for VOM using EPA Method 25 or equivalent. Compliance during other periods should be determined using CO as a surrogate for VOCS. A CO CEMS should be installed, certified, and operated to measure CO. A statistically significant relationship should be established between hourly CO and VOM using VOM stack tests and CO CEMS data. A CO emission limit should be established that is equivalent to the subject VOM limits. The CAAPP

⁷⁴ Illinois Environmental Protection Agency, *Questions Pending from U.S. Steel Title V Public Hearing*, Jan. 15, 2009 (provided to IEC by IEPA). Attached hereto as Exhibit 1.

⁷⁵ See the discussion of SO₂ CEMS in comment 5.b.

⁷⁶ Exhibit 14 at Sections 4.4, 4.5 and 5.10.

⁷⁷ A similar testing requirement already exists in a draft Title V operating permit for a different U.S. Steel facility. U.S. Steel Clairton Works, Allegheny County, PA; proposed June 10, 2005 at 52, 66, 80, 94. Attached hereto at Exhibit 20.

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should clearly state that violations of this equivalent CO limit constitute a violation of the underlying VOM limit.

ii. Blast Furnace uncaptured fugitive emissions

1. Condition 7.4.6.c specifies an SO₂ emission limit of 21.94 tons/year, but the draft CAAPP lacks a periodic monitoring requirement to determine whether USS-GCW is operating in compliance with this limit. IEPA should revise the draft CAAPP permit to specify a periodic monitoring requirement, employing an appropriate and reliable monitoring method and specifying an appropriate frequency of monitoring.

2. Condition 7.4.6.c specifies a NO_x emission limit of 1.14 tons/year, but the draft CAAPP lacks a periodic monitoring requirement to determine whether USS-GCW is operating in compliance with this limit. IEPA should revise the draft CAAPP permit to specify a periodic monitoring requirement, employing an appropriate and reliable monitoring method and specifying an appropriate frequency of monitoring.

3. Condition 7.4.6.c specifies a VOM emission limit of 7.42 tons/year, but the draft CAAPP lacks a periodic monitoring requirement to determine whether USS-GCW is operating in compliance with this limit. IEPA should revise the draft CAAPP permit to specify a periodic monitoring requirement, employing an appropriate and reliable monitoring method and specifying an appropriate frequency of monitoring.

iii. Slag Pits emissions

1. Condition 7.4.6.e specifies an SO₂ emission limit of 15.83 tons/year, but the draft CAAPP lacks a periodic monitoring requirement to determine whether USS-GCW is operating in compliance with this limit. IEPA should revise the draft CAAPP permit to specify a periodic monitoring requirement, employing an appropriate and reliable monitoring method and specifying an appropriate frequency of monitoring.

iv. Iron Spout Baghouse captured emissions controlled by iron spout baghouse

1. Condition 7.4.6.f specifies an SO₂ emission limit of 13.89 tons/year, but the draft CAAPP lacks a periodic monitoring requirement to determine whether USS-GCW is operating in compliance with this limit. Condition 5.12.2.c of the draft CAAPP permit states: "The compliance calculations shall be the primary compliance method for determining compliance with the emission limits in this permit, *except for the blast furnace casthouse baghouse and iron spout baghouse, for which stack testing shall be the primary means of determining compliance.*" However, the draft CAAPP does not require USS-GCW to conduct any stack tests during the term of the draft CAAPP or otherwise to monitor SO₂ emissions from the casthouse baghouse. In its response to questions posed by IEC at the public hearing on the draft CAAPP, IEPA stated that the draft CAAPP permit did not require any stack testing for SO₂ emissions from either the

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casthouse baghouse or the iron spout baghouse.⁷⁸ IEPA should address this inconsistency before it issues the final CAAPP permit. Moreover, the draft CAAPP should be revised to require periodic monitoring to ensure USS-GCW's compliance with the permit limit. Because CEMS for SO₂ are readily available, the SO₂ emissions limit is substantial, and CEMS is the only truly reliable means of generating data sufficient to show continuous compliance with a limit, the revised CAAPP should require USS-GCW to install, certify, operate, and maintain a CEMS to monitor its SO₂ emissions to ensure its compliance with the permit limit.⁷⁹

e. PM₁₀ emission limits

Subsection 7.4 of the draft CAAPP permit establishes certain limitations on PM₁₀ emissions for the Casthouse Baghouse (111.19 tons/year) and the Iron Spout Baghouse (40.32 Tons/Yr). It appears that IEPA intends that USS-GCW's compliance with these PM₁₀ limits will be demonstrated through the use of a bag leak detection system and associated parametric monitoring. In fact, Condition 7.4.9.a.ii of the draft CAAPP permit requires the installation, operation, certification, and maintenance of a bag leak detection systems. The bag leak detection system is maintained through parametric monitoring, which must be defined by the Permittee in the Permittee's written operation and maintenance plan, and which is subject to certain minimum requirements (see Condition 7.4.5-1).

However, the permit is unacceptably vague as to whether the above-referenced bag leak detection system requirement applies to the baghouses listed in Condition 7.4.2 (i.e. the Casthouse Baghouse *and* the Iron Spout Baghouse) of the draft CAAPP permit, or whether it applies to only one – or neither – of these baghouses. Accordingly, the bag leak detection system requirement is of questionable enforceability. The draft permit should be revised to make clear that 40 CFR 63.7830(b) applies to both the casthouse baghouse and the iron spout baghouse, since the description of 7.4.1 states that emissions from the casthouse structure are controlled by the casthouse baghouse and iron spout bag house. The CAAPP permit should also be revised to make clear that the bag leak detection system requirement in Conditions 7.4.9.a.ii explicitly applies to both the Casthouse Baghouse and the Iron Spout Baghouse. Condition 7.4.9.a.i, which requires USS-GCW to install, operate, and maintain a CPMS, must also be revised such that it explicitly applies to the Casthouse Baghouse and the Iron Spout Baghouse in use at the facility.

In addition, the draft CAAPP should be revised to require USS-GCW to complete an annual stack test for PM₁₀ emissions from each baghouse. These stack tests should be used to determine baghouse and leak detection system performance and effectiveness in complying with the specified PM₁₀ limits.

⁷⁸ Illinois Environmental Protection Agency, *Questions Pending from U.S. Steel Title V Public Hearing*, Jan. 15, 2009 (provided to IEC by IEPA). Attached hereto as Exhibit 1.

⁷⁹ See the discussion of SO₂ CEMS in comment 5.b.

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The PM₁₀ limits in Subsection 7.4 of the draft CAAPP permit apply to emissions points other than the baghouses (see below). Each of these limits is also problematic, because the draft CAAPP permit fails to establish any monitoring which would yield data sufficient to demonstrate compliance with the limit:

- i. Blast Furnace Charging emissions: Condition 7.4.6.d of the draft CAAPP permit specifies a PM₁₀ emission limit of 5.17 tons/year, but does not specify any periodic monitoring to demonstrate compliance with this limit. In order to assure compliance with the limit, the draft CAAPP permit should be revised to require USS-GCW to complete an annual stack test for PM₁₀ emissions. Draft EPA guidance supports the use of periodic stack testing to ensure compliance with emissions limits.⁸⁰
- ii. Slag Pits emissions: Condition 7.4.6.e specifies a PM₁₀ emission limit of 6.60 tons/year, but the draft CAAPP lacks a periodic monitoring requirement to determine whether USS-GCW is operating in compliance with this limit. IEPA should revise the draft CAAPP permit to specify a periodic monitoring requirement, employing an appropriate and reliable monitoring method and specifying an appropriate frequency of monitoring.
- iii. Iron Pellet Screen emissions (see 7.4.6.g of the draft CAAPP permit): PM₁₀ emissions must not exceed 6.01 Tons/Yr; however, no frequency of testing is specified. In order to assure compliance with the limit, the draft CAAPP permit should be revised to require USS-GCW to complete an annual stack test for PM₁₀ emissions. Draft EPA guidance supports the use of periodic stack testing to ensure compliance with emissions limits.⁸¹

f. Opacity

Condition 7.4.3-1.b of the draft CAAPP permit, pursuant to 35 IAC 212.316(b), establishes an opacity limit of 10 percent for fugitive particulate matter emissions generated by the crushing or screening of slag, stone, coke or coal. However, the draft CAAPP permit does not explicitly specify a testing requirement for this limitation and thus fails to require periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of USS-GCW's compliance with the permit. Although Condition 7.4.7-2.a.iv.B of the draft CAAPP permit identifies certain "test methods for compliance demonstration with the opacity limits," the draft CAAPP does not actually require that USS-GCW conduct any such testing to ensure compliance with the crushing and screening operations opacity limit in condition 7.4.3-1.b. The draft CAAPP permit should be revised to require daily 40 CFR Part 60, Appendix A, Method 9 visual emissions tests for the crushing and screening operations to ensure that USS-GCW is in compliance with 35 IAC 212.316(b).

⁸⁰ Exhibit 14 at Sections 4.4, 4.5 and 5.10.

⁸¹ Exhibit 14 at Sections 4.4, 4.5 and 5.10.

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g. Opacity

Condition 7.4.3-1.c of the draft CAAPP permit, pursuant to 35 IAC 212.316(f), establishes an opacity limit of 20 percent for any fugitive particulate matter emissions not already subject to an emission limitation in Subsection 7.4 of the draft CAAPP permit, or in Subparts R or S of 35 IAC Part 212. However, the draft CAAPP permit fails to specify a testing requirement for this limitation and thus fails to require periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of USS-GCW's compliance with the permit. The draft CAAPP should be revised to require daily observations in accordance with 40 CFR Part 60, Appendix A, Method 9 to ensure that USS-GCW is in compliance with this opacity limit. The draft CAAPP permit should be revised to require USS-GCW to comply with the recordkeeping and reporting requirements of 35 IAC 212.316(g), which the draft CAAPP permit fails to address despite making applicable other provisions from within 35 IAC 212.316.

h. Opacity

Condition 7.4.3-1.d.ii of the draft CAAPP permit, pursuant to 40 CFR 63.7790(a), establishes an opacity limit of 20 percent (6 minute average) for any secondary emissions that exit any opening in the casthouse or structure housing the blast furnace. However, the draft CAAPP permit does not explicitly specify a testing requirement for this limitation and thus fails to require periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of USS-GCW's compliance with the CAAPP permit. Although Condition 7.4.7-2(a)(iv)(B) of the draft CAAPP permit specifies certain "test methods for compliance demonstration with the opacity limits," nothing in this condition explicitly applies a testing method to the limit in 7.4.3-1(d)(ii). Furthermore, Condition 7.4.10(b)(i)(B) of the draft CAAPP permit claims that USS-GCW shall demonstrate continuous compliance with the applicable opacity limit merely by "maintaining the opacity of secondary emissions" at 20 percent. No testing method or frequency is given. The draft permit should be revised to require daily observations in accordance with 40 CFR Part 60, Appendix A, Method 9 to ensure that USS-GCW is in compliance with 40 CFR 63.7790(a).

7. Subsection 7.5 Basic Oxygen Furnaces

a. NO_x, VOM, and CO

Condition 7.5.6 of the draft CAAPP permit establishes emission limitations (tons/year) for NO_x, VOM, and CO from certain emission units. However, the draft CAAPP permit fails to require periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of USS-GCW's compliance with the permit.⁸² Condition 7.5.8.b.i of the draft CAAPP permit, pursuant to 40 CFR 63.7790, requires USS-GCW to install, operate, and maintain a bag leak detection system for each of the baghouses listed

⁸² These emissions limitations were originally established in Permit #95010001 pursuant to 40 CFR 52.21, PSD. According to EPA Region 9's Periodic Monitoring Guidelines, however, monitoring in PSD permits is *not presumptively adequate* to assure compliance with the limit. U.S. Environmental Protection Agency, Region 9, *Guidelines: Periodic Monitoring*, Sept. 09, 1999, Attached hereto at Exhibit 19.

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in condition 7.5.3 of the draft CAAPP permit. Condition 7.5.8.b.ii of the draft CAAPP permit also requires USS-GCW to install, operate, and maintain a COMS for each electrostatic precipitator (ESP) subject to the 10 percent opacity (hourly average) limit for emissions exiting the ESP. This lack of monitoring affects the following emission limits:

i. BOF ESP Stack (charge, refine, and tap processes) (see condition 7.5.6.c of the draft CAAPP permit):

1. Emission limit for NO_x (69.63 Tons/Yr) has no periodic monitoring requirement. The draft CAAPP permit should be revised to require an annual stack test to demonstrate compliance with this yearly limit. Draft EPA guidance supports the use of periodic stack testing to ensure compliance with emissions limits.⁸³ The NO_x emission test should be conducted according to one of the applicable methods (Method 7, 7A, 7B, 7C, 7D or 7E) specified in 40 CFR Part 60, Appendix A.⁸⁴

2. Emission limit for VOM (10.74 Tons/Yr) has no periodic monitoring requirement. The draft CAAPP permit should be revised to require an annual stack test to demonstrate compliance with this yearly limit. Note that 35 IAC 219.301 requires that organic material emissions not exceed 8.0 pounds per hour (3 kg/hr). The draft CAAPP permit, however, did not subject the BOF ESP Stack emissions point to this hourly limit. The final draft of the CAAPP permit must either subject the VOM emissions measured at the BOF ESP Stack to the requirements of 35 IAC 219.301, and establish adequate monitoring (e.g. VOM correlation or 40 CFR Part 60, Appendix A, Method 25 testing) to demonstrate compliance with the regulation, or the permit must describe why this regulation does not apply in the statement of basis. Draft EPA guidance supports the use of periodic stack testing to ensure compliance with emissions limits.⁸⁵

3. Emission limit for CO (16,097.47 Tons/Yr) has no periodic monitoring requirement. The draft CAAPP permit should be revised to require a CO CEMS to demonstrate compliance with this very high yearly limit. CO CEMS are available and used in similar industrial facilities.^{86,87}

ii. Desulfurization and Reladling (Hot Metal Transfer) (see condition 7.5.6.e of the draft CAAPP permit):

1. Emission limit for VOM (1.58 Tons/Yr) has no periodic monitoring requirement. We request that the CAAPP permit require an annual stack test to demonstrate compliance with this yearly limit. Although 35 IAC 219.301 requires that organic material emissions not exceed 8.0 pounds per hour (3 kg/hr), the draft CAAPP permit did not subject the Desulfurization and Reladling (Hot Metal Transfer) emissions point to this hourly limit. The final draft of the CAAPP permit

⁸³ Exhibit 14 at Sections 4.4, 4.5 and 5.10.

⁸⁴ A similar testing requirement already exists in a draft Title V operating permit for a different U.S. Steel facility. U.S. Steel Clairton Works, Allegheny County, PA; proposed June 10, 2005 at 52, 66, 80, 94. Attached hereto at Exhibit 20.

⁸⁵ Exhibit 14 Sections 4.4, 4.5 and 5.10.

⁸⁶ Exhibit 46 at Condition 3-8, Item 3-8.2.

⁸⁷ Exhibit 47 Condition III.B.4.a.

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must either subject the VOM emissions measured at the Desulfurization and Reladling (Hot Metal Transfer) to the requirements of 35 IAC 219.301, and establish adequate periodic monitoring to demonstrate compliance with the emission limit, or document why this regulation does not apply.

b. Lead:

Conditions 7.5.6.c-e of the draft CAAPP permit establish emission limitations (Tons/Yr) for lead (Pb) for certain emission units (see below). However, the draft CAAPP permit fails to require periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of USS-GCW's compliance with the limits.⁸⁸ Based on the emission limits below and the annual lead emissions reported in the 2007 Annual Emissions Report⁸⁹, USS-GCW exceeds the 1.0 ton per year monitoring threshold and will be required to conduct ambient monitoring for lead under the recently revised ambient air quality standard for lead.⁹⁰ Due to USS-GCW's significant lead emissions, we are requesting that CEMS for lead included from the ESP BOF stack determine compliance with the respective annual lead limits. A multi-metal CEMS is available and has been certified by the U.S. EPA's Environmental Technology Verification Program.⁹¹ We are requesting that annual stack tests be required for other sources with lead limits where no periodic monitoring has been included in the draft CAAPP permit: This omission affects the following emission lead limits:

- i. BOF ESP Stack (charge, refine, and tap processes) (see condition 7.5.6.c of the draft CAAPP permit): The limit of 1.26 Tons/Yr has no periodic monitoring requirement. The draft CAAPP permit should be revised to require the use of a multi-metals CEMS to demonstrate compliance with this significant yearly limit. We request that Pb CEMS monitoring be required to adequately demonstrate compliance with the annual Pb emissions limit.
- ii. BOF Roof Monitor emissions (see condition 7.5.6.d of the draft CAAPP permit): The limit of 0.08 tons/yr has no periodic monitoring requirement. The draft CAAPP permit should be revised to require an annual stack test using 40 CFR Part 60, Appendix A, Method 12 to

⁸⁸ Condition 7.5.8(b)(i) of the draft CAAPP permit, pursuant to 40 CFR 63.7790, requires the Permittee to install, operate, and maintain a bag leak detection system for each of the baghouses listed in condition 7.5.3 of the draft CAAPP permit. Condition 7.5.8(b)(ii) of the draft CAAPP permit requires the Permittee to install, operate, and maintain a COMS for each electrostatic precipitator (ESP) subject to the 10 percent opacity (hourly average) limit for emissions exiting the ESP. *However, neither of these forms of monitoring directly measures stack emissions.*

⁸⁹ United States Steel Corp. – Granite City Works: 2007 Annual Emissions Report; April 25, 2008; at 3. The 2007 annual sources emissions for lead are 1.33 tons.

⁹⁰ Federal Register Volume 73, No. 219 at 67029 states "At a minimum, there must be one source-oriented SLAMS site located to measure the maximum Pb concentration in the ambient air resulting from each Pb source which emits 1.0 or more tons per year based on either the most recent NEI or other scientifically justifiable methods and data (such as improved emission factors or site specific data.)"

⁹¹ Emissions Technology Verification Report; Cooper Environmental Services; XCEM Multi-Metals Continuous Emissions Monitor; May 2002 as Exhibit 48.

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demonstrate compliance with this yearly limit. Draft EPA guidance supports the use of periodic stack testing to ensure compliance with emissions limits.⁹²

- iii. Desulfurization and Reladling (Hot Metal Transfer) (see condition 7.5.6.e of the draft CAAPP permit): The limit of 0.08 tons/yr has no periodic monitoring requirement.⁹³ The draft CAAPP permit should be revised to require an annual stack test using 40 CFR Part 60, Appendix A, Method 12 to demonstrate compliance with this yearly limit. Draft EPA guidance supports the use of periodic stack testing to ensure compliance with emissions limits.⁹⁴
- iv. BOF Additive System (i.e., fluxes, with BOF Hopper Baghouse) (see condition 7.5.6.f of the draft CAAPP permit): The limit of 0.09 tons/yr has no periodic monitoring requirement. The draft CAAPP permit should be revised to require an annual stack test using 40 CFR Part 60, Appendix A, Method 12 to demonstrate compliance with this yearly limit. Draft EPA guidance supports the use of periodic stack testing to ensure compliance with emissions limits.⁹⁵

c. PM₁₀

Subsection 7.5 of the draft CAAPP permit also establishes PM₁₀ emission limits for emissions points controlled by baghouses. Although these baghouses are supposed to be controlled by bag leak detection systems, the permit lacks clarity regarding bag leak detection system requirements. Specifically, Condition 7.5.8(b)(i) of the draft CAAPP permit states that “For each baghouse equipped with a bag leak detection system according to 40 CFR 63.7830(b)(1), the Permittee shall install, operate, and maintain the bag leak detection system according to the following requirements...” However, the cited regulation – 40 CFR 63.7830(b)(1) – does not adequately specify which baghouses require leak detection systems. It appears that 40 CFR 63.7830(b) requires either a leak detection systems or COMS for baghouses used to meet particulate limits of table 1 of 40 CFR Part 63 Subpart FFFFF. As presently drafted, the permit does not expressly require USS-GCW to employ a bag leak detection system for the baghouses subject to this MACT. The draft CAAPP should be revised to make clear which baghouses at the BOF process are subject to Subpart FFFFF, and specify the monitoring requirements according to whether USS-GCW is employing bag leak detection system or COMS for each regulated baghouse.

Additionally, it is not clear how 40 CFR 63.7830(b) should be applied to the baghouses, making the permit’s incorporation by reference of the regulation of questionable enforceability. The regulation does not require bag leak detection or COMS on positive pressure baghouses not equipped with exhaust gas stacks and installed before 2005. The permit states that the reladling and desulfuration baghouse is a positive pressure

⁹² Exhibit 14 at Sections 4.4, 4.5 and 5.10.

⁹³ Emissions from the BOF desulfurization and reladling station are ducted to a baghouse equipped with a bag leak detection system (see Condition 7.5.2 of the draft CAAPP permit).

⁹⁴ Exhibit 14 at Sections 4.4, 4.5 and 5.10.

⁹⁵ Exhibit 14 at Sections 4.4, 4.5 and 5.10.

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baghouse, but does not give any information about exhaust gas stacks. No information is given about the slag skimming baghouse. The permit should clearly define how 40 CFR 63.7830(b) applies to each baghouse based upon the type of baghouse, installation date, and exhaust gas stacks.

Monitoring of the baghouse performance and maintenance of the baghouse must be included in the permit in order to assure compliance. The permit should include requirements similar to those found in Condition 7.4.5-1.b.iv as they would be applied to CEMS to initiate corrective actions for emission violations in a timely manner.

Finally, certain other permit conditions in the draft CAAPP permit contain PM₁₀ limits associated with emissions points which ought to contain the monitoring requirements set forth below. Following is a list of permit conditions which should be revised:

- i. BOF Additive System emissions (see 7.5.6.f of the draft CAAPP permit): PM₁₀ emissions must not exceed 0.57 Tons/Yr. The draft CAAPP permit should be revised to require an annual stack test for PM₁₀ emissions (as defined in 7.5.6.f) from the trackhopper baghouse which controls the emissions from this process. Additionally, due to the importance of bag leak detection, as noted in comment 7.c.vii below, a bag leak detection system should be required to be installed on the binfloor baghouse. The installation, maintenance, and operation requirements of Subsection 7.4 of the draft CAAPP permit for baghouses and bag leak detection systems should be expanded to include this bag house in order to provide necessary maintenance, cause prompt response to emission control equipment malfunction and assure compliance.
- ii. Flux conveyor and transfer pits, and bin floor emissions (see 7.5.6.g of the draft CAAPP permit): PM₁₀ emissions must not exceed 2.86 Tons/Yr. The draft CAAPP permit should be revised to require an annual stack test for PM₁₀ emissions from the binfloor baghouse which controls the emissions from this process. Additionally, due to the importance of bag leak detection, as noted in subsection 7.c.vii below, a bag leak detection system should be required to be installed on the binfloor baghouse. The installation, maintenance, and operation requirements of Subsection 7.4 of the draft CAAPP permit for baghouses and bag leak detection systems should be expanded to include this baghouse as well.
- iii. Argon Stirring Station and Material Handling Tripper (see 7.5.6.h of the draft CAAPP permit): PM₁₀ emissions must not exceed 12.80 Tons/Yr. Emissions from the argon stirring station and material handling tripper as well as the slag dispensing and LMF stations are ducted through baghouse #2. Bag leaks play an extremely important role in baghouse performance. Depending on the size of the baghouse, a bag failure rate as low as 0.5% can reduce efficiency by 15% and allow for a 150 fold emission increase, making the failure of only 1 bag

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significant.⁹⁶ The permit already acknowledges the importance of baghouse leaks by requiring bag leak detection for other baghouses. In order to comply with the emission limit and effectively detect bag leaks to ensure proper operation of the baghouse, a PM CEMS should be required. CEMS, rather than a bag leak detection system is necessary in this case because of the numerous processes being ducted to this baghouse as well as the higher emission limit in comparison to the flux conveyor and BOF additive system.

d. Opacity

Condition 7.5.3-1.a.iii of the draft CAAPP permit, pursuant to 35 IAC 212.446, establishes an opacity limit of 20 percent for uncaptured emissions from any opening in the building housing the BOF shop. Moreover, Condition 7.5.7-2.c of the draft CAAPP permit specifies that – if USS-GCW elects to monitor for its compliance with this limit – “testing to determine compliance with 35 IAC 212.446 shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 9, incorporated by reference in 35 IAC 212.113, except that compliance shall be determined by averaging any 12 consecutive observations taken at 15 second intervals.” The draft CAAPP permit fails to require USS-GCW to undertake opacity testing and fails to specify how frequently any such Method 9 observations shall take place, thus failing to require periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of USS-GCW’s compliance with this opacity limit in the permit. The draft CAAPP permit should be revised to require daily visual emissions testing, using 40 CFR Part 60, Appendix A, Method 9 procedures.

e. Opacity

Condition 7.5.3-1.c.iv of the draft CAAPP permit, pursuant to 40 CFR 63.7790(a), establishes an opacity limit of 20 percent (3-minute average) for any secondary emissions that exit any opening in the BOPF shop or any other building housing the BOPF operation. Although Condition 7.5.7-1.c requires USS-GCW to “determine the opacity from the openings BOF shop on at least a weekly basis,” the permit is vague as to whether this weekly testing requirement applies specifically to “secondary emissions that exit any opening in the BOPF shop or any other building housing the BOPF operation” (see condition 7.5.3-1.c.iv). In addition, the draft CAAPP permit does not explicitly identify which testing method(s) shall apply to the opacity limit for purposes of demonstrating compliance. Regardless of the applicability of Condition 7.5.7-1.c to the opacity limit in Condition 7.5.3-1.c.iv, weekly opacity testing cannot provide data sufficient to assure compliance with the 20 percent opacity limit in Condition 7.5.3-1.c.iv. The draft CAAPP permit should be revised to require daily opacity monitoring according to 40 CFR Part 60, Appendix A, Method 9. Daily observations using EPA

⁹⁶ Wenjun Qin, Manuel Dekermenjian, and Richard J. Martin, *Prediction of Particulate Loading in Exhaust from Fabric Filter Baghouses with One or More Failed Bags*, 56 Journal of the Air and Waste Management Association 1177 (2006).

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Method 9 are supported by EPA Region VII guidance on opacity monitoring for Title V permits.⁹⁷

f. Opacity

Condition 7.5.3-1.f of the draft CAAPP permit, pursuant to 35 IAC 212.316(f), establishes an opacity limit of 20 percent for any fugitive particulate matter emissions not already subject to an emission limitation in other specified regulations. However, the draft CAAPP permit fails to require any monitoring to determine whether USS-GCW is operating in compliance with this limitation. The draft CAAPP permit should be revised to require daily opacity monitoring to demonstrate compliance with condition 7.4.3-1.c in accordance with 40 CFR Part 60, Appendix A, Method 9. Daily observations using EPA Method 9 are supported by EPA Region VII guidance on opacity monitoring for Title V permits.⁹⁸

g. Recordkeeping and Reporting

The draft CAAPP permit should be revised to require USS-GCW to comply with the recordkeeping and reporting requirements of 35 IAC 212.316(g), which the draft CAAPP permit fails to address, despite making applicable other provisions from within 35 IAC 212.316.

h. ESP – Opacity – Daily Monitoring

Condition 7.5.7-1(c), pursuant to permit #95010001, establishes that Permittee shall determine the opacity from the basic oxygen furnace (BOF) electrostatic precipitator (ESP) stack for “at least one hour on any normal work day (i.e., *Monday through Friday*) that the continuous opacity monitor on the BOF ESP stack has an outage that exceeds two consecutive hours and is still down” [emphasis added]. The permit should adjust the language in this subsection to account for the fact that the BOF ESP operates twenty four hours, *seven days a week*. Every day of the week, that is Monday through Sunday, is a “work day” so that the permit should determine opacity from the BOF ESP stack every day of the week. Moreover, neighbors of the facility are more likely to be at home, and exposed to excess emissions, on Saturday and Sunday, making monitoring those days of particular importance.

8. Subsection 7.6 Continuous Casting

- a. Condition 7.6.7.b of the draft CAAPP permit establishes an emission limitation of 89.50 tons/year for NO_x emissions from Caster Molds. However, the draft CAAPP permit fails to require any monitoring to determine whether USS-GCW is operating in compliance with this limitation. The draft CAAPP permit should be revised to require a CEMS to demonstrate compliance with this emission

⁹⁷ Region VII Guidance on Periodic Monitoring for Opacity, April 18, 1997, states “Method 9 is the preferred visual observation method. To the extent practicable, a source should attempt to record daily opacity measurements on each emissions point subject to an opacity standard.”

⁹⁸ Region VII Guidance on Periodic Monitoring for Opacity, April 18, 1997, states “Method 9 is the preferred visual observation method. To the extent practicable, a source should attempt to record daily opacity measurements on each emissions point subject to an opacity standard.”

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- limitation, according to one of the applicable methods (Method 7, 7A, 7B, 7C, 7D or 7E) specified in 40 CFR Part 60, Appendix A.⁹⁹
- b. Conditions 7.6.7.a-e of the draft CAAPP permit establish emission limitations (tons/year) for PM₁₀ emissions for certain processes (see below). Although condition 7.6.8.a.ii states that – if USS-GCW elects to undertake monitoring – it should employ the methods specified in 35 IAC 212.108. However, the draft CAAPP permit unacceptably fails to require USS-GCW to undertake any such monitoring, or to specify how frequently any such testing shall take place. The draft CAAPP permit thus fails to require periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit.¹⁰⁰ Draft EPA guidance supports the use of periodic stack testing to ensure compliance with emissions limits.¹⁰¹ The draft CAAPP permit should be revised to require USS-GCW to conduct an annual stack test for PM₁₀ emissions to determine USS-GCW's compliance with the following emission limits:
- i. Deslagging Station and Material Handling Station (see 7.6.7.a): PM₁₀ emissions must not exceed 6.35 Tons/Yr.
 - ii. Caster Molds (see 7.6.7.b): PM₁₀ emissions must not exceed 10.74 Tons/Yr.
 - iii. Casters Spray Chambers (see 7.6.7.c): PM₁₀ emissions must not exceed 15.25 Tons/Yr.
 - iv. Slab Cut-off (see 7.6.7.d): PM₁₀ emissions must not exceed 12.71 Tons/Yr.
 - v. Slab Ripping (see 7.6.7.e): PM₁₀ emissions must not exceed 12.92 Tons/Yr.
- c. Condition 7.6.3-1.b.ii of the draft CAAPP permit establishes a 5 percent opacity limitation for “continuous caster spray chambers or continuous casting operations”. Condition 7.6.8.a.iii further specifies that – in the event that USS-GCW elects to conduct opacity monitoring – all opacity readings “shall be conducted in accordance with the observation procedures established in 40 CFR Part 60, Appendix A, Method 9.” However, the draft CAAPP permit fails to require USS-GCW to undertake opacity monitoring to determine compliance with this emission limitation, or to state how frequently such monitoring shall take place. The draft CAAPP permit should be revised to require opacity testing sufficient to yield reliable data from the relevant time period that are

⁹⁹ A similar testing requirement already exists in a draft Title V operating permit for a different U.S. Steel facility. U.S. Steel Clairton Works, Allegheny County, PA; proposed June 10, 2005 at 52, 66, 80, 94. Attached hereto at Exhibit 20.

¹⁰⁰ Condition 7.6.8(a) (“Testing Requirements”) of the draft CAAPP permit establishes that “*Upon the Illinois EPA or USEPA request, the Permittee shall conduct testing of the affected slab reheat furnaces*” [emphasis added]. In effect, then, the draft CAAPP permit does not impose on the Permittee any regular testing or monitoring requirements which the Permittee must undertake on its own. The burden of compliance demonstration for purposes of the periodic monitoring requirements of Title V is a *source* responsibility.

¹⁰¹ Exhibit 14 at Sections 4.4, 4.5 and 5.10.

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representative of the source's compliance with the permit, achievable through the installation, certification, operation, and monitoring of a COMS. Where operation of a COMS is technically non-feasible (e.g. roof vents that exceed the practical path length of the opacity monitor)¹⁰², compliance demonstration should be achieved through daily visual emissions testing according to the observation procedures in 40 CFR Part 60, Appendix A, Method 9.¹⁰³

9. Subsection 7.7 Hot Strip Mill:

a. Lack of Required Monitoring

Condition 7.7.3-1 of the draft CAAPP permit, pursuant to 35 IAC 212.458(b)(10), establishes an emission limitation for PM₁₀ of 38.7 ng/J (0.09 lbs/mmbtu) of heat input from the slab furnaces. Condition 7.7.8.c states that – in the event that USS-GCW elects to conduct monitoring to determine its compliance with this emission limit – it shall follow the methods specified in 35 IAC 212.108.¹⁰⁴ However, the draft CAAPP permit does not require USS-GCW to undertake such monitoring, nor does it specify how frequently any such monitoring should take place. Condition 7.7.8.a provides that “*Upon the Illinois EPA or USEPA request, USS-GCW shall conduct testing of the affected slab reheat furnaces*” [emphasis added]. In effect, then, the draft CAAPP permit does not impose any regular testing requirements and thus fails to require periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit. Therefore, the draft CAAPP permit should be revised to install and operate a PM CEMS to determine USS-GCW's compliance with this significant PM₁₀ emissions limitation.

b. Recordkeeping

Condition 7.7.7(b) of the draft CAAPP permit references a requirement carried over from Operating Permit #72080038. The condition states: “The coke oven gas (COG) heat input fraction from firing COG in conjunction with natural gas (NG) shall not exceed 0.863 based on a maximum heat input to the 4 slab heating furnaces of 1915 million Btu per hour and a calculated COG particulate emission rate of 0.044 pounds of particulate per million BTU per hour per a stack test on A Battery stack on 3-28-89.” It is unclear how USS-GCW will show compliance with the 1,915 million Btu per hour heat input limitation to the 4 slab heating furnaces. Condition 7.7.10(c) of the draft CAAPP permit requires USS-GCW to keep a “*monthly log of amount for each type of fuel used*”

¹⁰² See U.S. Environmental Protection Agency, Region 7, *Region 7 Policy on Periodic Monitoring for Opacity*, Apr. 18, 1997 at 3. Attached hereto at Exhibit 15.

¹⁰³ Note that the requirement to conduct opacity readings in accordance with the observation procedures in 40 CFR Part 60, Appendix A, Method 9 already exists in Condition 7.6.8(a)(iii) of the draft CAAPP permit.

¹⁰⁴ 35 IAC 212.108(a) allows PM₁₀ emissions to be measured by any of three methods, at the option of the owner or operator of the emission unit: (1) Method 201, 40 CFR part 51, Appendix M; (2) Method 201A, 40 CFR part 51, Appendix M; and (3) Method 5, 40 CFR part 60, Appendix A. However, condition 7.7.8(b) of the Title V draft permit specifies that the “particulate matter emission s subject to the limit established in Condition 7.7.3-1 shall be determined in accordance with procedures published in *40 CFR Part 60, Appendix A, Methods 1 through 5* [emphasis added].” Thus, Condition 7.7.8(b) appears to subject the emission limit in 7.7.3-1 to a narrower testing requirement than does Condition 7.7.8(c).

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[emphasis added]. However, since these records will be used to determine compliance with the maximum *hourly* heat input limitation in Condition 7.7.7(b), the permit should contain an *hourly* fuel usage recordkeeping requirement.¹⁰⁵

c. NOx

The permit neither mentions nor imposes emission limits, monitoring, or recordkeeping requirements regarding NOx emissions from the hot strip mill. The final CAAPP and/or Project Summary/Statement of Basis should explain this fact and either add applicable NOx requirements or explain why no such requirements apply to these emissions.

10. Subsection 7.8 Finishing Operations

Condition 7.8.8(a)(iii) of the draft CAAPP permit, pursuant to 40 CFR 63.1162(a)(1), requires performance tests to “measure the HCl mass flows at the control device inlet and outlet or the concentration of HCl exiting the control.” The draft CAAPP permit further specifies that such tests should be “conducted by USS-GCW either annually or according to an alternative schedule that is approved by the applicable permitting authority, but no less frequently than every 2.5 years.” However, Condition 7.8.8(b) effectively establishes that the testing in 7.8.8(a)(iii) shall occur every 2.5 years. This frequency of testing is not sufficient to assure compliance with the terms and conditions of the CAAPP permit. The draft CAAPP permit should be revised to require performance testing pursuant to 40 CFR 63.1162(a)(1) on at least an annual basis. A major rationale for increasing the frequency of testing is that HCl is classified as a Hazardous Air Pollutant (HAP) in EPA's National Emissions Inventory (NEI) database.¹⁰⁶

11. Subsection 7.10 Boilers:

- a. Condition 7.10.3(c) of the draft CAAPP permit, pursuant to 35 IAC 212.207, establishes an hourly limit for PM emissions caused by the simultaneous combustion of more than one type of fuel in a fuel combustion emission unit. Although condition 7.10.12(a) of the draft CAAPP permit specifies that compliance with the applicable standards of Condition 7.10.3 “shall be achieved by the work practices, testing, monitoring, recordkeeping and reporting requirements described in subsection 7.10,” the draft CAAPP permit does not actually require any work practices, testing, monitoring,¹⁰⁷ recordkeeping or

¹⁰⁵ In a letter dated December 11, 1997, to Florida Department of Environmental Protection, U.S. EPA Region 4 objected to the issuance of a Proposed Part 70 Operating Permit for Florida Power & Light's Manatee Plant. Letter from U.S. Environmental Protection Agency to Florida Department of Environmental Protection, Dec. 11, 1997, *available at*

<http://www.epa.gov/region07/programs/artd/air/title5/t5memos/fp&11997.pdf>. Attached hereto as Exhibit 23. In Enclosure 1 of that letter, U.S. EPA stated that one of its reasons for objecting to the permit was that the permit did not include an hourly fuel usage recordkeeping requirement to ensure compliance with an hourly heat input limit. An analogous situation exists with Condition 7.7.7(b) of the draft CAAPP permit.

¹⁰⁶ See U.S. Environmental Protection Agency, National Emissions Inventory Hazardous Air Pollutant Names, available at <http://www.epa.gov/air/data/help/hneihaps6.html> (last visited Feb. 25, 2009). Attached hereto as Exhibit 24.

¹⁰⁷ According to Condition 7.10.8 of the draft CAAPP permit, “No direct instrumental monitoring procedures and/or requirements are established for the affected boilers.”

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reporting sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit. In particular, the draft CAAPP permit does not require any tests for visual emissions from the affected boilers described in Subsection 7.10. Please note that a recordkeeping requirement alone is not likely to ensure compliance with the PM limit, namely because USS-GCW is permitted to burn Blast Furnace Gas (BFG) and Fuel Oil in addition to "clean" natural gas.^{108 109} thus creating the potential for USS-GCW to emit significant PM emissions and trigger the limit in this condition of the draft CAAPP permit.¹¹⁰ We therefore request that USS-GCW install, certify, operate, and monitor a PM CEMS to determine compliance with the hourly PM limit in 7.10.3.c.¹¹¹

- b. Condition 7.10.7(d)(i) of the draft CAAPP permit states that "*upon a reasonable request from the Illinois EPA, USS-GCW shall conduct performance test [sic] of the affected boilers while burning blast furnace gases or other nontraditional fuels*" [emphasis added]. However, in order to yield reliable data from the relevant time period that are representative of the source's compliance with the permit, performance tests of the affected boilers ought to be required at a minimum on an annual basis. Furthermore, the final CAAPP permit should outline which variables and parameters will be measured in the above-referenced performance tests.
 - i. For example, the final CAAPP permit must establish a testing method for carbon monoxide emissions from the boilers. Condition 7.10.3(e) of the draft CAAPP permit, pursuant to 35 IAC 216.121, establishes a limit of 200 ppm for emissions of CO from the affected boiler processes. In order to yield reliable data from the relevant time period that are representative of USS-GCW's compliance with this limit, we request that the CAAPP permit require an annual performance test to demonstrate compliance with the 200 ppm limit. In order to yield reliable data from the relevant time period that are representative of USS-GCW's compliance with this limit, we request that the CAAPP permit require an CO COMS.¹¹²
- c. Condition 7.10.9(c) of the draft CAAPP permit requires USS-GCW to create monthly records pertaining to the percent lead, ash, and sulfur, ppm of halogen content, ppm of chromium, arsenic, lead and cadmium, and the flash point of each shipment of recycled oil. However, this recordkeeping requirement is not sufficient to assure compliance with the terms and conditions of the CAAPP permit because the draft CAAPP permit fails to require any testing which would

¹⁰⁸ Illinois Environmental Protection Agency, Construction Permit Number 95010001, Paragraph 21(a)-(c), U.S. Steel Corporation – Granite City, June 25, 2002, condition 22 and Table 4. Attached hereto as Exhibit 17.

¹⁰⁹ See Production Increase Permit #95010001, Paragraph 21(a)-(c).

¹¹⁰ IEPA Construction Permit Number 95010001, U.S. Steel Corporation – Granite City, June 25, 2002, condition 21.a-c.

¹¹¹ Please see comment 5.b. for our discussion on the availability of PM CEMS for industrial sources.

¹¹² Please see comment 5.b. for our discussion on the availability of CO CEMS for industrial sources.

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yield reliable data. The final CAAPP permit ought to specify the testing method(s) that USS-GCW shall use to produce the records required by Condition 7.10.9(c).

- d. Condition 7.10.9(d) of the draft CAAPP permit also requires USS-GCW to create monthly records pertaining to the percent lead, percent ash, and percent sulfur, and the flash point of each shipment of Intermediate Light Oil. However, this recordkeeping requirement is not sufficient to assure compliance with the terms and conditions of the CAAPP permit because the draft CAAPP permit fails to require any testing which would yield reliable data. The final CAAPP permit ought to specify the testing method(s) that USS-GCW shall use to produce the records required by Condition 7.10.9(d).

12. Subsection 7.11 Internal Combustion Engines

- a. In section 7.11 the permit applies a PM_{10} emission limit to combustion engines but fails to require any monitoring of particulate emissions from combustion engines. Condition 7.11.3(c) specifies a limit of .01 gr/scf on PM_{10} emissions from any process unit but the permit does not provide monitoring sufficient to yield reliable data representative of compliance with this limit. As an instantaneous limit is specified it is recommended that a CEMS for particulate matter be required to monitor emissions in order to demonstrate compliance. If a CEMS is used then the necessary record keeping and reporting requirements to demonstrate compliance are contained in conditions 7.11.10(e)(iv) and 7.11.11(a)(iii), respectively. If, however, it is shown that less frequent monitoring is sufficient to demonstrate compliance then record keeping requirements must be specified since condition 7.11.10(e)(iv) only applies to CEMS and CPMS.
- b. The permit applies emission limits for PM, CO, NO_x , and SO_2 to the emergency generator in condition 7.11.7(b) but lacks monitoring sufficient to demonstrate compliance for all of the listed pollutants except CO. A stack test for each pollutant should be required once every 5 years to establish emission factors from the emergency generator. Since the generator is only used for emergency situations, this will provide adequate data for compliance with the hourly and annual emission limits.
- c. Condition 7.11.6(a) sets parameter limitations for catalyst inlet temperature and pressure drop across the catalyst. Monitoring, record keeping, and reporting requirements sufficient to yield reliable data to represent compliance with these conditions of the permit are absent. Condition 7.11.9(b) states: "If the Permittee is required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of ... subpart (ZZZZ of 40 CFR part 63), the Permittee shall install, operate, and maintain each CPMS according to the requirements in 40 CFR 63.8." While some portions of Table 5 address catalyst temperature and pressure drop the permit does not make it clear what monitoring systems, if any, are required to monitor these parameters in order to demonstrate compliance. Some methods of demonstrating compliance in Table 5 of subpart ZZZZ, which gives requirements to demonstrate initial compliance, require CPMS to

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"continuously monitor operating parameters approved by the Administrator (if any)." Some methods require the "recording of approved operating parameters (if any) during the initial performance test." Table 6 of the same subpart lists requirements for multiple methods of demonstrating continuous compliance with emission limitations. Some of these methods require "collecting the approved operating parameter (if any) data..." The permitting authority, therefore, must specify the parameters to be continuously monitored, periodically monitored, and measured during performance tests. Not addressing this issue causes conditions 7.11.6(a) and 7.11.9(b) to become unenforceable. The permit should specify these parameters in order to contain monitoring sufficient to represent compliance with the permit.

13. Subsection 7.12 Gasoline Storage and Dispensing

Section 7.12 lacks necessary monitoring, record keeping, and reporting to assure compliance with 35 IAC 219.301. Condition 7.12.3(b)(ii) gives an hourly emission limit of 8 lb/hr but the permit does not specify any monitoring sufficient to yield reliable data representative of compliance with the permit. Section 7.12.12 of the permit states that "compliance with conditions 7.12.3(b) is considered to be assured by the use of submerged loading pipe and vapor balance system...". The use of the submerged loading pipe and vapor balance system are not sufficient to demonstrate compliance with the emission limit as neither of them measure emissions. 35 IAC 219.302(b) and (c) state that emissions in excess of 8 lbs/hr are acceptable if "a vapor recovery system which adsorbs and/or condenses at least 85 percent of the total uncontrolled organic material that would otherwise be emitted to the atmosphere; or, any other air pollution control equipment approved by the Agency and approved by the USEPA as a SIP revision capable of reducing by 85 percent or more the uncontrolled organic material that would be otherwise emitted to the atmosphere" is used. If the use of the submerged loading pipe and vapor balance system do exempt the source from limiting emission to below 8 lb/hr by absorbing and condensing 85 percent of materials that would otherwise be emissions then that should be noted in the permit and condition 7.12.3(b)(ii) should be put in section 7.12.4, as it would no longer apply. If the exemption in 35 IAC 219.302(b) and (c) does not apply then the permit should specify periodic monitoring sufficient to demonstrate compliance.

V. Recordkeeping and Reporting Requirements Must Be Supplemented in Conjunction with Additional Monitoring Requirements.

Concomitant with the need to add the monitoring requirements described above are parallel needs to specify recordkeeping and monitoring requirements so that IEPA, USEPA, and the public can have access to the monitoring data to confirm USS-GCW's compliance status. While monitoring data known only to USS-GCW can inform the company's operations and facilitate its efforts to attain and maintain compliance, the Title V/CAAPP permit is also designed to facilitate compliance and enforcement by the federal

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and state government and the public. Accordingly, when IEPA revises the draft CAAPP to include the additional, required, periodic monitoring as described above, IEPA should also revise the draft CAAPP to require USS-GCW to maintain records and report the results of its monitoring activities sufficient to determine USS-GCW's compliance status.

VI. The Draft CAAPP Permit Unlawfully Lacks A Compliance Schedule to Remedy Current Violations

Where a facility is not in compliance with applicable requirements at the time of Title V/CAAPP permit issuance, federal and state law require that the Title V application include a compliance plan including a compliance schedule, and that the permit when issue include a compliance schedule.¹¹³

All CAAPP permits shall contain emission limitations and standards and . . . *schedules for achieving compliance at the earliest reasonable date*, which are or will be required to accomplish the purposes and provisions of this Act and to assure compliance with all applicable requirements.¹¹⁴

The draft CAAPP fails to include an admittedly-required compliance schedule, and fails to address several areas of apparent additional violations requiring compliance schedules.

a. The Draft CAAPP Permit Unacceptably Includes a “Placeholder” for a Required Compliance Schedule Rather than the Compliance Schedule Itself.

Beginning in 2005, IEPA filed a series of three complaints against USS-GCW for air pollution violations at this facility. In December 2007, the parties filed and the court approved a Consent Order settling the litigation.¹¹⁵ The Consent Order required USS-GCW to submit, among other things, a detailed compliance schedule regarding the blast oxygen furnace operations by March 31, 2008, and to implement the compliance schedule by June 30, 2008.¹¹⁶ (The Consent Order also highlighted the inadequacy of the existing monitoring regime at USS-GCW.) Neither the draft CAAPP permit nor the Project Summary addresses USS-GCW's efforts to comply with the numerous requirements and deadlines in the Consent Order, many of which requirements overlap with conditions in the draft CAAPP. The revised CAAPP and/or Project Summary/Statement of Basis should do so.

¹¹³ 42 U.S.C. § 7661b(b)(1); 42 U.S.C. § 7661c(a); 40 C.F.R. § 70.5(c)(8)(iii)(C); and 40 C.F.R. § 70.6(c)(3).

¹¹⁴ 415 ILL. COMP. STAT. 5/39.5(7)(a)(emphasis added).

¹¹⁵ Consent Order 05-CH-750. People of the State of Illinois, ex rel., Lisa Madigan v. U.S. Steel Corporation, Inc. Dec.18, 2007, Circuit Court of the Third Judicial Circuit, Madison County, Illinois. Attached hereto as Exhibit 5.

¹¹⁶ Consent Order 05-CH-750. People of the State of Illinois, ex rel., Lisa Madigan v. U.S. Steel Corporation, Inc. Dec.18, 2007, Circuit Court of the Third Judicial Circuit, Madison County, Illinois. See paragraphs D.3.d. and e. Attached hereto as Exhibit 5.

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One glaring aspect of non-compliance, however, is acknowledged in the draft CAAPP: USS-GCW had not submitted an acceptable compliance plan to satisfy the March 31, 2008 deadline, and accordingly could not have satisfied the June 30, 2008 deadline for implementing the phantom plan. Section 7.5.14 of the draft CAAPP explains as follows (emphasis added):

The Permittee was sent Violation Notice A-2007-00009 by the Illinois EPA for violations related to the affected BOF shop. The violation notice alleged exceedances of the 20% opacity limit on uncaptured emissions from openings in the building housing the BOF shop. (Sections 9(a) and 9(b) of the Illinois Environmental Protection Act, 35 Ill. Adm. Code 2121.446(c) and condition 8 of operating permit 9501001). The violations were referred to the Office of the Illinois Attorney General by the Illinois EPA. The violations were resolved via consent order 05—CH-750, which was entered on December 18, 2007 in the Circuit Court for the Third Judicial Circuit, Madison County, Illinois. This consent order required U.S. Steel to submit a compliance schedule for incorporation into this permit. *As of the date of issuance of this permit draft, an acceptable compliance schedule that would demonstrate compliance with the above referenced violations has yet to be submitted.*

IEPA explained at the public hearing on the draft CAAPP that USS-GCW had submitted a proposed compliance schedule but IEPA rejected it as unacceptable.¹¹⁷ However, rather than waiting to issue the draft CAAPP until it had an acceptable compliance schedule to include, IEPA issued the public an IOU. Condition 5.13 of the draft CAAPP – USS-GCW states, in full:

Placeholder for compliance schedule to be ordered by the Third Judicial Circuit in *People of the State of Illinois v. United States Steel Corporation*, Madison County Circuit Court, 05-CH-750.

This does not satisfy the requirements of Title V/CAAPP. The absence of a compliance schedule in the draft CAAPP permit prevents public participation as required by the CAA:

A copy of each permit application, compliance plan (*including the schedule of compliance*) . . . shall be available to the public.¹¹⁸

¹¹⁷ Illinois Environmental Protection Agency, Transcript of *Public Hearing and Comment Period for Draft CAAPP Permits for U.S. Steel*, Dec. 2, 2008 at 50. Attached hereto as Exhibit 21.

¹¹⁸ 42 U.S.C. § 7661b(e). Note that this provision has an exception for confidential information: "If an applicant or permittee is required to submit information entitled to protection from disclosure under section 7414(c) of this title, the applicant or permittee may submit such information separately. The requirements of section 7414(c) of this title shall apply to such information." However, this exception does not apply to

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Illinois law echoes the federal requirement:

The Agency shall issue a CAAPP permit, permit modification, or permit renewal if all of the following conditions are met... The applicant has submitted with its complete application an approvable compliance plan, *including a schedule for achieving compliance*, consistent with subsection 5 of this Section and applicable regulations."¹¹⁹

The Agency shall *make available to the public* all documents submitted by the applicant to the Agency, including each CAAPP application, *compliance plan* (including the schedule of compliance), and emissions or compliance monitoring report, with the exception of information entitled to confidential treatment pursuant to Section 7 of this Act.¹²⁰

If IEPA includes a compliance schedule in the final CAAPP, without issuing a revised draft on which the public can comment, the public will be deprived of an opportunity to comment on a critical aspect of this permit. Therefore, IEPA should issue a revised draft CAAPP with an "acceptable compliance schedule" for public comment before issuing a final or proposed final CAAPP.¹²¹

b. The Draft CAAPP and Related Materials Suggest Other Instances of Current Noncompliance.

1. Apparent Violations of Emission Limits

As set forth in section IV.C.4 above, documents filed by USS-GCW to IEPA suggest that the facility is violating its NO_x emission limit in 35 IAC 217.141. IEPA should investigate this and include a compliance schedule in a revised CAAPP if appropriate.

2. Failure to Prepare SSM Plans

Neither the draft CAAPP nor the Project Summary provides information regarding the various Startup Shutdown and Malfunction Plans required of USS-GCW by each of the MACT standards to which it is subject, even though these plans would appear to play a significant role in the potential impact of the facility on the community. In response to questions asked at the public hearing on the draft CAAPP, IEPA stated that USS-GCW has submitted SSM Plans required

USS-GCW's compliance plan because it will not contain trade secrets; the purpose of 7414(c) is to protect companies from disclosing trade secrets in public documents. 42 U.S.C. § 7414(c).

¹¹⁹ 415 ILL. COMP. STAT. 5/39.5, Section 10(a)(ii) (2005) (emphasis added).

¹²⁰ 415 ILL. COMP. STAT. 5/39.5, Section 5(q) (emphasis added).

¹²¹ IEPA stated at the public hearing that when USS-GCW submits an approvable compliance schedule, it will be inserted into USS-GCW's revised draft CAAPP permit and submitted to the public for comment. Illinois Environmental Protection Agency, Transcript of *Public Hearing and Comment Period for Draft CAAPP Permits for U.S. Steel*, Dec. 2, 2008 at 51. Attached hereto as Exhibit 21

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under two of the MACT standards, but has not submitted to IEPA any SSM Plans required under the following MACT standards: Coke Oven Batteries (40 CFR Part 63, Subpart L); Reciprocating Internal Combustion Engines (40 CFR Part 63, Subpart ZZZZ); and Steel Pickling – HCl Process (40 CFR Part 63, Subpart CCC).¹²² The regulations require USS-GCW to have prepared, and to be operating under, these SSM plans. If they do are not, then that is a violation of the MACT regulations. Neither the draft CAAPP nor the Project Summary provide sufficient information to enable the public to determine whether USS-GCW is in compliance with this important requirement – or even whether IEPA knows whether USS-GCW is in compliance. We request that IEPA investigate this, if appropriate, and clarify the status of USS-GCW's compliance with all of its SSM Plan obligations in a revised draft or final CAAPP.

VII. The Draft Permit Unlawfully Exempts Emissions During Startup, Shutdown, and Malfunctions From Emission Limits.

Numerous provisions in the permit purport to exempt USS-GCW from otherwise-applicable emission limits during periods of startup, shutdown, and/or malfunction (SSM). Some provisions do this expressly.¹²³ Other provisions do this by incorporating by reference EPA's regulations at 40 CFR Part 63, Subpart A, several subsections of which purport to exempt SSM emissions from otherwise-applicable MACT-based emission limits. 40 CFR §§ 63.6(e)(1)(i), (f)(1), and (h)(1).¹²⁴ Some provisions rely on SSM exemptions under the EPA's regulations in 40 CFR Part 63, while others rely on SSM exemptions under Illinois law.

None of these SSM exemptions is lawful, and they must be removed from the draft CAAPP. In December 2008, the federal appeals court with jurisdiction over EPA's Clean Air Act regulations invalidated EPA's regulations exempting SSM emissions from MACT limits. *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008). The court held that the SSM exemption was inconsistent with the plain language of the Clean Air Act. The court therefore vacated the standards, effectively wiping them off the books as if they never existed.¹²⁵

Under the vacated regulations, EPA required sources during SSM events to comply only with a "general duty" standard, that is, to minimize emissions to the greatest extent

¹²² Ex. 1, response to question number 1.

¹²³ See, e.g., the following sections of the draft CAAPP: 7.2.5-3.a.i; 7.2.5-3.b.vi; 7.2.5-4; 7.3.5; 7.4.5-2.b.i; 7.4.5-2.c; 7.5.5-2.b; 7.6.5.a; 7.7.5; 7.10.3.g and h; and 7.11.6.b.i.

¹²⁴ See, e.g., the following sections of the draft CAAPP: 7.2.3.d.ii; 7.2.3.e.ii. In addition, sections 7.4.3.d, 7.5.3, 7.8.3.f, and 7.8.5 state that specified operations at the facility are subject to two MACT standards, 40 CFR Part 63 Subparts FFFFF and CCC, which in turn incorporate by reference the SSM exemptions in 40 CFR Part 63 Subpart A.

¹²⁵ See *Environmental Defense v. EPA*, 489 F.3d 1320, 1325 (D.C. Cir. 2007) (while remanded regulations remain in effect, vacated regulations do not); *Campanale & Sons, Inc. v. Evans*, 311 F.3d 109, 127 (1st Cir. 2002).

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possible. *Sierra Club v. EPA, supra*, 551 F.3d at 1022, citing 70 Fed. Reg. 43,992, 43,993 (July 29, 2005). The court ruled that the general duty standard is not an emission limit and does not satisfy the requirement that hazardous air pollutant emissions be limited by MACT standards.

Because the general duty is the only standard that applies during SSM events – and accordingly no section 112 standard governs these events – the SSM exemption violates the CAA's requirement that some section 112 standard apply continuously.

Sierra Club v. EPA, supra, 551 F.3d at 1028.

Accordingly, the following provisions in the draft CAAPP that would exempt USS-GCW's emissions from MACT standards during SSM events must be revised in the final permit as a direct result of this court decision, to make clear that emissions during startup, shutdown, and malfunction are not exempt from otherwise-applicable emission limits:

- Sections 7.2.3.d.ii and 7.2.3.e.ii, which incorporate by reference 40 CFR Part 63, Subpart A, with respect to the coke oven operations and coke oven battery operations also governed by 40 CFR Part 63 Subparts L and CCCCC. 40 CFR Part 63 Subpart A contains the SSM exemptions invalidated in *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008);
- Section 7.2.5-3.a.i, which purports to exempt USS-GCW from complying with the MACT emission limits in 40 CFR Part 63 Subpart CCCCC;
- Section 7.2.5-3.b.vi, which purports to exempt USS-GCW from complying with the MACT emission limits in 40 CFR Part 63 Subpart L;
- Section 7.11.6.b.i, which purports to exempt USS-GCW from complying with the MACT emission limits in 40 CFR Part 63 Subpart ZZZZ;
- Although the SSM exemption provision incorporated by reference in the Integrated Iron and Steel Manufacturing Facilities MACT is not expressly quoted or cited in the draft CAAPP, the draft permit (sections 7.4.3.d and 7.5.3) states that the facility's blast furnace process and basic oxygen furnaces are subject to 40 CFR Part 63 Subpart FFFFF, Integrated Iron and Steel Manufacturing Facilities," and Subpart FFFFF contains an express SSM exemption. 40 CFR §§ 63.7810(a) and 63.7835(b). In addition, draft CAAPP section 7.5.5-2 could be read to implicitly exempt SSM emissions from otherwise-applicable limits;
- Although the SSM exemption provision incorporated by reference in the Steel Pickling – HCl Process Facilities MACT is not expressly quoted or cited in the draft CAAPP, the draft permit (sections 7.8.3.f and 7.8.5) states that the facility's HCl pickling line is subject to 40 CFR Part 63 Subpart CCC, Steel Pickling – HCl Process Facilities and Hydrochloric Acid Regeneration Plants. Subpart CCC incorporates by reference the SSM exemptions in §§ 63.6(e)(1)(i) and (f)(1) that were vacated by the D.C. Circuit decision cited above. 40 CFR § 63.1155(c) and Table I to Subpart CCC of Part 63.

Similarly, the draft CAAPP provisions that rely on Illinois law to exempt USS-GCW from emissions limits established under state law must also be revised to eliminate that

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exemption. Citing 35 IAC 201.149, 35 IAC 201.161,¹²⁶ and 35 IAC 201.262, several provisions in the draft CAAPP authorize USS-GCW to violate emission limits during SSM events under specified circumstances. See, e.g., draft CAAPP sections 7.2.5-4 (coke oven batteries shutdown and malfunction), 7.3.5 (by-product recovery plant shutdown and malfunction), 7.4.5-2.b.i (blast furnace process shutdown and malfunction), 7.4.5-2.c (blast furnace process startup), 7.5.5-2.b (basic oxygen furnace shutdown and malfunction), 7.6.5.a (continuous casting operations shutdown and malfunction), 7.7.5 (slab reheat furnaces startup), 7.10.3.g (boilers startup), 7.10.3.h.i (boilers shutdown and malfunction). The Illinois SSM exemption is comparable to the EPA's "general duty" standard in that it does not impose any specific emission limits but instead directs sources to use best efforts to minimize excess emissions. 35 IAC 201.262. Because Illinois law directs IEPA to issue CAAPP permits "consistent with the [federal] Clean Air Act," 415 ILCS 5/39.5(3)(a), and because the Illinois SSM exemption violates the Clean Air Act by authorizing SSM emissions not subject to emission limits, *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008),¹²⁷ IEPA must remove all references to the Illinois SSM exemption from the draft CAAP before issuing it in final form.

VIII. The Draft Permit Unlawfully Fails to Include Compliance Assurance Monitoring Requirements.

EPA regulations require certain Title V facilities to develop a compliance assurance monitoring ("CAM") plan, according to detailed regulations set forth in the regulations, and to submit the plan to IEPA for review and approval. 40 CFR Part 64.

The project summary for the USS-GCW permit states that the CAM rules do not yet apply to USS-GCW because a CAAPP application was submitted prior to April 20, 1998, the trigger date in the EPA regulations. 40 CFR § 64.5. This ignores the permit application history in this case.

¹²⁶ We question whether the reference to 35 IAC 201.161 was intended to be 35 IAC 201.261.

¹²⁷ See also *Michigan Dept of Environmental Quality v. Browner*, 230 F.3d 181 (6th Cir. 2000); EPA, Approval and Promulgation of Implementation Plans; Revisions to the Nevada State Implementation Plan: Excess Emissions Provisions, 71 Fed. Reg. 75690 (Dec. 18, 2006) ("We view all excursions above SIP emission limits as violations because the purpose of SIP limits are to protect the NAAQS, and thus, any emissions above such limits may cause or contribute to violations of the NAAQS.... Moreover, SIPs must include enforceable emission limitations (see CAA section 110(a)(2)(A)), and Congress intended such limitations to be continuous in nature. See the definition of "emission limitation" in CAA section 302(k). Allowing the Director to exempt from enforcement incidents during which emissions exceed the underlying emissions limitation means that none of the emission limitations in the SIP otherwise subject to enforcement under State law and the Clean Air Act are truly continuous in nature but rather may be discontinued for indefinite periods by the Director." 71 Fed. Reg. at 75693); *In re Tallmadge Generating Station*, PSD Appeal No. 02-12, 2003 WL 21500414 (Env.App.Bd. 2003) ("BACT requirements cannot be waived or otherwise ignored during periods of startup and shutdown. EPA has issued three guidance documents over the years clearly expressing the Agency's long-standing position that automatic exemptions for excess emissions (i.e., emissions in excess of BACT or other permit limits) during startup and shutdown periods cannot be reconciled with the directives of the CAA.")

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A CAAPP permit application was submitted for the Granite City Works in 1996, but no permit was ever issued pursuant to that application. The 1996 application cannot be considered the application for the draft U.S. Steel Permit that was public noticed in 2008. See 415 ILCS 5/39.5-5(j) (“The Agency shall issue or deny the CAAPP permit within 18 months after the date of receipt of the complete CAAPP application.... Where the Agency does not take final action on the permit within the required time period... the failure to act shall be treated as a final permit action....”).

On May 29, 2007, U.S. Steel submitted a different CAAPP application, which it designated as the “Initial Application” for the facility on the cover sheet provided by IEPA. See attached Exhibit 27. The draft CAAPP permit published by IEPA in October 2008 was drafted in response to this 2007 application, which was filed more than nine full years after the trigger date for inclusion of the CAM rules.

The two applications themselves are also substantially different. As a preliminary matter, ownership and management of the facility changed hands: National Steel Corporation, which owned the Granite City Works, went bankrupt in 2002 and was bought as a going concern by U.S. Steel in 2003. National Steel submitted the original CAAPP application, which was ultimately ignored, and U.S. Steel submitted the second.

More significantly, U.S. Steel’s 2007 application includes a number of plans designed to ensure future MACT compliance, including site-specific monitoring plans, startup, shutdown and malfunction plans, operation and maintenance plans for the entire “integrated iron and steel manufacturing facilities.” There is also a site-specific soaking work practice plan for USS-GCW’s coke ovens, encompassing the pushing, quenching and battery stacks operations. To place the difference in gross perspective, 68 pages of the 128-page-long 2007 application contained MACT compliance plans. Not one of these plans was included in the 1996 National Steel application.

The eleven years elapsing between the two application submissions should also be highlighted. Had IEPA timely issued a CAAPP permit in response to the 1996 application, Granite City Works would have submitted its (at least) first renewal application, since CAAPP permits are only valid “for fixed terms of 5 years....” 415 ILCS 5/39.5-3(b). Given the 1996 application date, the earliest a renewal permit would have been issued is 2001, three years after the date the CAM rules were triggered. 40 CFR §§ 64.2, 64.5. Gifting the Granite City Works with an additional 5-year pass on the CAM rules would contrast startlingly with Illinois’s interest: the facility is the primary cause of air pollution in an area that is nonattainment for ozone and PM₁₀. The CAM rules are designed to more effectively monitor this pollution and ultimately lead to its abatement.

Thus, both the facts underlying the permit and the law governing the process require that the CAM rules be included in any current CAAPP permit for the U.S. Steel-Granite City Works.

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IX. The Draft Permit Fails to Inform the Public About Fine Particulate Matter Emissions from the Facility.

The St. Louis metropolitan area, including Metro East, Illinois, is nonattainment for fine particulate matter (PM_{2.5}). PM_{2.5} pollution is exceptionally harmful to public health. In revising the National Ambient Air Quality Standards for PM_{2.5} in 2006, the EPA stated:

The nature of the effects that have been reported to be associated with fine particle exposures including premature mortality, aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions and emergency department visits), changes in lung function and increased respiratory symptoms, as well as new evidence for more subtle indicators of cardiovascular health...Sensitive or vulnerable subpopulations that appear to be at greater risk to such effects, including individuals with pre-existing heart and lung diseases, older adults, and children...Conclusions, based on the magnitude of these subpopulations and risks identified in health studies, that exposure to ambient fine particles can have substantial public health impacts.¹²⁸

Scientists have repeatedly linked PM_{2.5} pollution to increased rates of mortality and morbidity.¹²⁹ These findings suggest that reductions in sustained air pollution exposure will improve life expectancy.¹³⁰

USS-GCW is not only located in an air quality control region designated nonattainment for fine particulate matter (PM_{2.5}),¹³¹ its emissions are a principal contributor to that unhealthy status.¹³² And not only is the facility a principal source of excessive PM_{2.5} concentrations in the region, but it is likely causing additional monitors to report

¹²⁸ 71 Fed. Reg. 61144, 61152 (Oct. 17, 2006).

¹²⁹ C. Arden Pope III et al., *Fine-Particulate Air Pollution and Life Expectancy in the United States*, 360 *NEW ENGL. J. MED.* 376, 376 (2009). Attached hereto as Exhibit 34.

¹³⁰ *Ibid.*

¹³¹ In 2008, EPA designated the region nonattainment for not only the annual standard but also for the 2006-revised 24-hour standard. U.S. Environmental Protection Agency, *Area Designations for 2006 24-Hour Fine Particle (PM_{2.5}) Standards, Final Designations Comparison*, <http://www.epa.gov/pmdesignations/2006standards/documents/2008-12-22/finaltable.htm> (last visited Jan. 28, 2009). Attached hereto as Exhibit 35.

¹³² Illinois Environmental Protection Agency, Technical Support Document for the Recommended Nonattainment Boundaries in Illinois for the 24-Hour PM_{2.5} National Ambient Air Quality Standard, Dec. 18 2007, at 23, available at <http://www.epa.state.il.us/public-notice/2007/pm25-standards/recommendations.pdf>. Attached hereto as Ex. 2.

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violations of PM_{2.5}.¹³³ PM_{2.5} concentrations in the vicinity of the USS-GCW facility are expected to exceed national health-based standards for at least another decade.¹³⁴

Nevertheless, there was no mention in the CAAPP application, the draft CAAPP, or the Project Summary that USS-GCW actually emits any – let alone substantial quantities of – PM_{2.5}. The draft CAAPP indicates that the region is nonattainment for PM_{2.5}, but makes no mention of the facility's emissions of that pollutant.

PM_{2.5} has been a “regulated pollutant” since 1997, when EPA first set National Ambient Air Quality Standards for PM_{2.5}. Federal and state law require that Title V/CAAPP applicants include information about their emissions of all regulated pollutants in their applications. The federal regulations, 40 CFR 70.5(c)(3)(i), states that each application must describe:

All emissions of pollutants for which the source is major, and all emissions of regulated air pollutants. **A permit application shall describe all emissions of regulated air pollutants emitted from any emissions unit**, except where such units are exempted under this paragraph (c) of this section.

The Illinois regulations contain similar language. Specifically, 35 IAC 270.403 defines the permit application requirements for specific emissions units:

A CAAPP application shall contain the following for each emission unit, for each mode of operation for which a permit is being sought:

...
e) The maximum emission rates for each regulated air pollutant and air pollutant for which the source is major in tons-per-year, pounds-per-hour (unless emissions are not normally calculated in pounds-per-hour) and in such other terms that are necessary to establish the applicability of requirements and compliance with the applicable limitations and standards, and consistent with the applicable standard reference test methods. [...]

ABC understands that there are presently no limits on USS-GCW's emissions of PM_{2.5}. However, there can be no argument that (1) PM_{2.5} is a regulated pollutant, being subject to a NAAQS and (2) USS-GCW emits PM_{2.5}. One critical function of the Title V/CAAPP program is to inform the public of a facility's emissions and pollution control requirements. It is arguably even more important for an

¹³³ “Based on wind patterns on high days and the proximity of the plant to nearby monitors, it is logical to conclude that emissions coming from U.S. Steel are contributing to the 24-hour PM_{2.5} violations at the two nearby monitors.” See Exhibit 2 attached hereto.

¹³⁴ IEPA, Illinois – Air Issues Update (Oct. 2008), p. 17; “Modeling shows Metro-East Granite City area problem persistent out to 2018.” Available at http://www.ladco.org/reports/workshops/2008/October_15-16_2008/Presentations/Illinois.pdf; attached hereto as Ex. 49.

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affected community to know that a large emitting facility emits substantial amounts of a harmful pollutant and is NOT subject to any emission limits for such emissions.

The draft CAAPP permit and/or Project Summary should be revised to indicate clearly the extent and sources of USS-GCW's PM_{2.5} emissions and provide an explanation of the absence of any emission limits regarding those emissions.

X. Numerous Provisions of the Draft Permit Lack Practical Enforceability.

A Title V permit must not only contain all applicable requirements; it must be sufficiently clear and specific to ensure that those requirements are enforceable as a practical matter. As quoted recently by the EPA Administrator, the requirement of "practical enforceability" can be described as follows:

A permit is enforceable as a practical matter (or practically enforceable) if permit conditions establish a clear legal obligation for the source [and] allow compliance to be verified. Providing the source with clear information goes beyond identifying the applicable requirement. It is also important that permit conditions be unambiguous and do not contain language which may intentionally or unintentionally prevent enforcement.

EPA Region 9 Title V Permit Review Guidelines, Sept. 9, 1999, p. III-46, as quoted in *In the Matter of Midwest Generation, LCC, Fisk Generating Station*, Petition number V-2004-1; CAAPP No. 95090081, Decision of then-Acting EPA Administrator Stephen Johnson (March 25, 2005), 2005 EPA CAA Title V LEXIS 4; *In the Matter of Midwest Generation, LCC, Joliet Generating Station*, Petition number V-2004-3; CAAPP No. 95090046, Decision of then-Acting EPA Administrator Stephen Johnson (June 24, 2005), 2005 EPA CAA Title V LEXIS 12; *In the Matter of Midwest Generation, LCC, Romeoville Generating Station*, Petition number V-2004-4; CAAPP No. 95090080, Decision of then-Acting EPA Administrator Stephen Johnson (June 24, 2005), 2005 EPA CAA Title V LEXIS 13.

To achieve ability to enforce compliance, a Title V must accurately describe operational requirements and limitations on emissions for a facility, including any alternative processes that the permitting State has selected. See 40 CFR §§ 70.6(a)(1)(iii), 70.6(a)(3). In addition and where it is necessary to enforcement, a Title V permit must include monitoring and related recordkeeping and reporting requirements. See generally 40 CFR § 70.6(a)(3).

The USS-GCW facility is extremely complex, and many provisions of the draft permit lack one or more of these conditions necessary to practical enforceability. These provisions must be revised.

A. Typographical Errors

(1) 7.5.7-1.c.1 references the "openings BOF shop." It is unclear what this means.

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- (2) 7.5.14 references an opacity limit derived from "35 Ill. Adm. Code 2121.446(c)". This appears to be a typographical error. The permit likely should refer to 35 Ill. Adm. Code § 212.446(c).
- (3) 7.10.3.c establishes an hourly PM limit pursuant to 35 IAC 212.207. However this provision simply repeats the text of the Illinois regulation without reformatting it in such a way as to render the condition enforceable or even understandable:
 - a. The condition defines parameter "B" of the equation as a "constant determined from the table in subsection (b)." Subsection (b) exists in the text of the applicable regulation, but not within the text of the permit provision. "B" should thus reference the table contained in the provision instead.
 - b. The same provision also states that the "metric and English units to be used in the equation of subsection (a) of this Section are as follows [...]." Again, subsection (a) exists in the text of 35 IAC 212.207, but not in the draft USS-GCW permit. Therefore, 7.10.3.c should not include mention of "subsection (a)."
- (4) 7.10.3.d.iii reproduces a table of units found in 35 IAC 214.421(d) and states that the units are for use in "the equation of subsection (a)." Subsection (a) exists in the text of 35 IAC 212.207, but not in the draft USS-GCW permit. The above-referenced equation simply appears within the text of 7.10.3.d. There should be no mention of "subsection (a)."
- (5) 7.11.3.b references 35 IAC 218.301. This appears to be a typographical error and should be 35 IAC 219.301.
- (6) 7.13.3.c says that "[a]ll areas treated with water, oils, or chemical dust suppressants shall gave the treatment applied...." This word "gave" should be "have".
- (7) 7.13.10.a.iv contains a portion of the text of 35 IAC § 212.316(g). It should contain the entire text and read: "The records required under 35 IAC 212.316 shall be kept at the source and be available for inspection and copying by Illinois EPA representatives during working hours."

B. Provisions Requiring Recordkeeping and Reporting in Order to Demonstrate Compliance

- (1) 7.1.13 fails to include any sort of recordkeeping or reporting requirements in order to demonstrate compliance. This deficiency makes the permit unenforceable, as there is no other way to possibly demonstrate compliance.
- (2) 5.6.3.a sets production limits of 3,165,000 tons of iron per year and 3,580,000 tons of steel per year, which were originally established in GCW's 1996 production increase construction permit.¹³⁵ The draft CAAPP permit correctly

¹³⁵ IEPA Construction Permit Number 95010001, Granite City Division of National Steel Corporation, January 25, 1996. The permit was renewed on June 25, 2002 for the U.S. Steel Corporation – Granite City. Attached hereto as Exhibit 17.

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includes these production limits, but fails to incorporate the essential recordkeeping and reporting requirements in the production increase permit, which are necessary to determine compliance with the set limits. Sections 32.c.i. – ii. of the permit outline the procedure for GCW to determine compliance with the production limits in the 1996 production increase construction permit. Additionally, the reporting¹³⁶ and recordkeeping¹³⁷ requirements of the production increase permit have not been included in the draft permit. These items must be included to make the permit enforceable. Reporting and recordkeeping are required by 40 CFR 70.6(c)(1), which states that all part 70 permits shall contain: “Consistent with paragraph (a)(3) of this section, compliance certification, testing, monitoring, reporting and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit.” 40 CFR 70.6(c)(1). We request that conditions 32.c.i and 32.c.ii from the production increase permit be included in section 5.6.3 of the draft CAAPP permit and that conditions 35.a. and 35.b. from the production increase permit be included in section 5.9 Source-Wide Recordkeeping Requirements of the draft permit. We also request that condition 40.a. of the production increase permit be included in section 5.10 Source-Wide Reporting Requirements of the draft CAAPP permit.

- (3) Sections 5.6.3.b.i.A – C set monthly and annual fuel usage limits for blast furnaces A and B, boilers 1 – 10 and 11 and 12, ladle drying preheaters and blast furnace gas flares. The fuels limited include natural gas, blast furnace gas (BFG) and fuel oil. These limits are established in condition 21 of the production increase permit¹³⁸. The draft permit lacks the compliance method specified in condition 32.b. of the production increase permit¹³⁹. This condition must be included in the draft permit to make the fuel usage limits enforceable as required by CFR §70.6(a)(3)(i)(B). The draft CAAPP permit also lacks any recordkeeping and reporting requirements to ensure compliance with the fuel usage limits. Reporting and recordkeeping are required by 40 CFR 70.6(c)(1), which states that all part 70 permits shall contain: “Consistent with paragraph (a)(3) of this section, compliance certification, testing, monitoring, reporting and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit.” The production increase permit does include reporting and recordkeeping requirements in conditions 35.c and 40.b. and c. Condition 35.c must be included in Section 5.9 Source-Wide Recordkeeping Requirements. Conditions 40.b. and c. must be included in Section 5.10 Source-Wide Reporting Requirements. These recordkeeping and reporting requirements must be included

¹³⁶ IEPA Construction Permit Number 95010001, U.S. Steel Corporation – Granite City, June 25, 2002, condition 40.a. Attached hereto as Exhibit 17.

¹³⁷ IEPA Construction Permit Number 95010001, U.S. Steel Corporation – Granite City, June 25, 2002, conditions 35.a. and 35.b. Attached hereto as Exhibit 17.

¹³⁸ IEPA Construction Permit Number 95010001, U.S. Steel Corporation – Granite City, June 25, 2002, condition 21. Attached hereto as Exhibit 17.

¹³⁹ IEPA Construction Permit Number 95010001, U.S. Steel Corporation – Granite City, June 25, 2002, condition 32.b. Attached hereto as Exhibit 17.

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in the permit to ensure compliance with the fuel usage limits. We request that these conditions be added to the draft CAAPP permit.

- (4) 5.6.3 b.ii sets annual emission limits for blast furnaces A and B, boilers 1 – 10 and 11 and 12, ladle drying preheaters and blast furnace gas flares. These annual emission limits are for PM/PM10, SO₂, NO_x, VOM, CO and lead and apply to combined annual emissions from all of the listed emissions units. These limits lack enforceability because there are no recordkeeping or reporting requirements in Section 5.9 Source-Wide Recordkeeping Requirements and Section 5.10 Source-Wide Reporting Requirements. to ensure compliance with these annual emission limits. Reporting and recordkeeping are required by 40 CFR 70.6(c)(1) which states that all part 70 permits shall contain: “Consistent with paragraph (a)(3) of this section, compliance certification, testing, monitoring, reporting and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit.” We request that the draft CAAPP permit include recordkeeping and reporting in Section 5.9 Source-Wide Recordkeeping Requirements and Section 5.10 Source-Wide Reporting Requirements that is sufficient to ensure compliance with these annual emission limits.
- (5) The maximum annual emission limits in Section 5.6.3 b.iii.A through C are unenforceable due to a lack of recordkeeping or reporting requirements in Section 5.9 Source-Wide Recordkeeping Requirements and Section 5.10 Source-Wide Reporting Requirements. Such requirements are necessary to ensure compliance with these annual emission limits. All CAAPP permits must contain: “Consistent with paragraph (a)(3) of this section, compliance certification, testing, monitoring, reporting and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit.” 40 CFR 70.6(c)(1). As such, the draft CAAPP permit should include the following:

- identification of the emission unit
- description of test methods used to directly measure the emissions rate including a description of the sampling train, analysis equipment and test schedule
- measured emissions rate
- data and detailed calculations to determine emissions, including raw data sheets and records of laboratory analyses, sample calculations and data on equipment calibration.
- unit specific emissions
- total emissions

Requiring such records would establish consistency with conditions already established in the draft CAAPP permit in section 5.7 b.v.E. The CAAPP permit should include a requirement in section 5.9 that the above information be submitted to the IEPA on an annual basis. We request that the draft CAAPP permit include these recordkeeping and reporting requirements in Section 5.9 Source-Wide Recordkeeping Requirements and Section 5.10 Source-Wide Reporting Requirements to ensure compliance with these annual emission limits.

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- (6) 5.7.c.i.D should contain a reporting clause, as self-reporting is the only possible and practical way to determine compliance.
- (7) 7.9.4.a states that “[i]f conditions at the facility change and the total annual benzene calculation shows increase to greater than 10 Mg/yr,” then the source becomes subject to Subpart FF. There is no way for any interested party to know if the facility has changed and met this conditions without some sort of reporting requirement. This provision should include an annual reporting requirement.

C. Lack of Clarity as to Applicable Standards

- (1) 7.2.7-2 Measurement Requirements includes two different measurement standards, and the permit does not specify which should be followed. 7.2.7-2.a requires quench samples are to be taken five days a week and 7.2.7-2.b requires them on “at least a weekly basis.” The provision should simply require that the quench samples be taken five days a week.
- (2) 7.4.7-2.a.iv.B.1 states that, in order to demonstrate compliance with the applicable opacity limit for a blast furnace casthouse, USS-GCW shall “[u]se a certified observer to determine the opacity of emissions according to Method 9 in Appendix A to 40 CFR Part 60.” However, condition 33(b) of Construction Permit #95010001 establishes that USS-GCW shall have “at least two employees or agents experienced in making opacity readings to the extent that it is reasonably possible to do so, who shall make the opacity readings required by [Construction Permit #95010001].” Condition 33(b) of Construction Permit #95010001 should also appear in the final CAAPP permit.
- (3) 7.5.3-1.a.i states that emission standards under one of three regulations apply to the basic oxygen furnace, but provides no guidance as to which regulation in fact applies: “Unless 35 IAC 212.446(c) ...applies, emissions from basic oxygen furnace operations ... shall not exceed the allowable emission rate specified by 35 IAC 212.321 or 212.322, whichever is applicable.” The CAAPP should be revised to specify the applicable regulation. This provision is not enforceable as a practical matter as written.
- (4) 7.5.3-1.a.ii.B similarly references three regulations, only one of which actually governs USS-GCW’s emissions from the hot metal transfer, hot metal desulfurization, and ladle lancing operations.

D. Incorporation by Reference, But No Clear Access to the Incorporated Texts

- (1) 7.13.3 incorporates both the PM₁₀ contingency plan and fugitive dust operating program by reference, but the permit never alerts the public as to how they may obtain copies of the plan and program. This prevents those documents from being easily reviewed by the public. The actual text of the plan and program need to be incorporated into the permit, and thus make the permit provisions enforceable. This also prevents IEPA and the permittee from making changes in the permit without the legally required review process.

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- (2) 5.3.10 incorporates the episode action plan by reference, but the permit never alerts the public as to how they may actually obtain copies of this plan. This erects a substantial barrier to public review and enforceability. The actual text of the plan should be incorporated into the permit, thus making the permit provisions practically enforceable and also preventing changes in the permit without the legally required review process.
- (3) 5.3.3 a. of the draft CAAPP permit requires that USS-GCW submit a fugitive particulate matter operating plan to the IEPA and operate under such plan. Section 5.3.3.b requires USS-GCW to amend this plan from time to time in order to keep the operating program current. Section 5.3.3 c. outlines the operations that must be included in the operating plan. All three of these sections are not enforceable because they contain no facility specific information or requirements. The language only restates key requirements in 35 IAC 212.309 through 212.312. The draft CAAPP permit does not indicate whether or not GCW submitted the required fugitive particulate matter operating plan, whether it was reviewed by the IEPA or whether it was approved. Additionally, there is no indication that the operating plan, if submitted, has been updated as required by 35 IAC 212.312. We request that IEPA include in Section 5.3.3.a a statement confirming that the initial operating plan was submitted, the title of the operating plan, the date the plan was submitted, any approval or disapproval of the plan by the IEPA, and the date of any such approval. We also request the IEPA include in Section 5.3.3 b. any and all amendments to the operating plan, the dates such updates were submitted to the IEPA, and the dates of any and all IEPA approvals or disapprovals of such amendments.
- (4) 5.3.4 requires that GCW submit a PM10 Contingency Measure Plan which is incorporated by reference. However, the draft permit does not indicate a title or date that the PM10 Contingency Plan was approved by the IEPA. Also, the draft permit does not state whether or not any amendments have been made to the plan and the dates of any such amendments. Without this information, this section of the draft permit is practically unenforceable. We request that section 5.3.4 include the title of the PM10 Contingency Plan, the date submitted to the IEPA, the date of the IEPA's approval, any amendments to the plan, the dates of amendments submitted to the IEPA and the dates of any IEPA approval of amendments.
- (5) 5.3.10 requires that GCW submit an Episode Action Plan for reducing the levels of emissions during yellow alerts, red alerts and emergencies. However, the draft permit does not indicate a title or date that the Episode Action Plan was submitted or approved by the IEPA. Also, the draft CAAPP permit does not state whether any amendments have been made to the plan and the dates of any such amendments. Without this information, this section of the draft permit is practically unenforceable. We request that section 5.3.10 include the title of the Episode Action Plan, the date of submission to the IEPA, the date of the IEPA's approval, any amendments to the plan, amendment submission dates and the dates of any IEPA approval of amendments.

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- (6) 7.2.5-1 requires that USS-GCW submit a written work practice plan for soaking. However, the draft permit does not indicate a title or date that the Soaking Plan was submitted or approved by the IEPA. Also, the draft CAAPP permit does not state whether any amendments have been made to the plan and the dates of any such amendments. Without this information, this section of the draft permit is practically unenforceable. Section 7.2.5-1 should include the Soaking Plan, the date it was submitted to the IEPA, the date of the IEPA's approval, any amendments to the plan, the dates such amendments were submitted to the IEPA, and the dates of IEPA's approval of such amendments.
- (7) 7.2.5-2 requires that USS-GCW submit a written work practice plan to achieve compliance with respect to an affected battery. 7.2.5-2.d requires the permittee to revise the permit should as per future USEPA or IEPA requirements. However, the draft permit does not indicate a title or date that the work practice plan was submitted to or approved by the IEPA. Also, the draft CAAPP permit does not state whether any amendments have been made to the plan and the dates of such amendments. Without this information, this section of the draft permit is not practically enforceable. 7.2.5-2 should include the text of the work practice plan, the date it was submitted to the IEPA, the date of IEPA's approval, any revisions to the plan, the dates such revisions were submitted to the IEPA, and the dates of any IEPA approval of revisions.
- (8) 7.15.14 requires USS-GCW to submit a compliance schedule to demonstrate compliance with previously referenced violations. However, as the permit states, "an acceptable compliance schedule that would demonstrate compliance has yet to be submitted." When one is submitted, it is to be incorporated into the permit. This effectively excludes the public from commenting on a section of the permit for which the facility already has a well-documented history of non-compliance. The permit should include a placeholder that includes provisions allowing for future public comment.

E. Lack of Clarity Concerning Exactly Which Units to Which a Limit Applies

- (1) 5.3.2 a. of the draft CAAPP permit establishes that fugitive particulate matter from any processes, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind is less than 25 miles per hour is not allowed. However, this section fails to identify the processes to which it applies. The potential sources of fugitive particulate matter which could fall under this section of the draft permit include: coal handling, crushing and storage and slag handling and storage. Without knowing which of these sources the section applies to, citizens cannot identify whether or not fugitive particulate matter emissions from a given source are a violation. Thus, this section is unenforceable as written. We request that the IEPA include a specific list of sources of fugitive particulate matter that are regulated under section 5.3.2 a. of the draft CAAPP permit.
- (2) 5.3.2 b of the draft CAAPP permit establishes that the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere

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from any emissions unit other than those emission units subject to the requirements of 35 IAC 212.122 is not allowed. This section fails to identify the emission units to which it applies. Thus, the opacity limit is not enforceable. The number of potential emission units in the enormous USS-GCW facility that could fall within the purview of this section is staggering, and citizens cannot possibly identify the applicable units without further guidance by IEPA. We request that the IEPA include a specific list of units that emit particulate matter and that are regulated by the 30 percent opacity limit under section 5.3.2 b of the draft CAAPP permit.

- (3) 5.3.2 c.i.v of the draft CAAPP permit establishes an opacity limit of 20 percent for any emissions unit that has not been assigned a particulate matter, PM10 or fugitive particulate matter emissions limitations "elsewhere in this section or in Subparts R or S of this Part."¹⁴⁰ It is unclear to what "Subparts R or S" refer.; this must be clarified in the final permit. It is impossible to identify the emission units to which this provision applies. Thus, the opacity limit is not enforceable as required. As noted above, the number of potential emission units in USS-GCW is enormous. Without more information, citizens cannot identify whether the opacity from a given source is a violation. We request that the IEPA include a specific list of units that are regulated under this 20 percent opacity limit.
- (4) 5.3.2 d.i.A. of the draft CAAPP permit sets a particulate matter emission limit of 22.9 mg/scm (0.01 gr/scf) from any process emissions unit located at integrated iron and steel plants in the vicinity of Granite City. This section fails to identify the process units to which this emission limit applies. Thus, the particulate matter emission limit is not practically enforceable. The potential emission units within USS-GCW's expansive facility that could fall under this section of the draft permit are numerous. Citizens cannot identify whether or not particulate matter emissions from a given source are a violation. We request that the IEPA include a list of specific units that emit particulate matter that are regulated by the particulate matter limit under section 5.3.2 d.i.A. of the draft permit.
- (5) 5.3.2 d.i.C of the draft CAAPP permit sets a PM₁₀ emissions limit of 32.35 ng/J (0.075 lbs/mmbtu) of heat input from the burning of coke oven gas at all emission units, other than coke oven combustion stacks, at steel plants in the vicinity of Granite City. This section fails to identify emission units to which the PM₁₀ limit applies. Thus, the PM₁₀ limit is not practically enforceable. The potential emission units within USS-GCW's expansive facility are quite numerous and include, at a minimum, the blast furnaces, ladle preheater, slab reheat furnaces and boilers. Citizens cannot practically identify whether PM₁₀ emissions from a given source are a violation. We request that IEPA specifically identify the emissions units to which this PM₁₀ emission limit applies.

¹⁴⁰ Section 5.3.2 c.iv. states "Emissions Limitation for All Other Emission Units. Unless an emission unit has been assigned a particulate matter, PM10, or fugitive particulate matter emissions limitation elsewhere in this Section or in Subparts R or S of this Part, no person shall cause or allow fugitive particulate matter emissions from any emission unit to exceed an opacity of 20 percent [35 IAC 212.316(f)]."

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- (6) 5.3.2 d.i.D of the draft CAAPP permit sets a PM_{10} emission limit of 38.7 ng/J (0.09 lbs/mmBtu) of heat input for the slab furnaces at steel plants in the vicinity of Granite City. This section fails to identify emissions units to which the PM_{10} limit applies. Thus, the PM_{10} limit is not enforceable as required. Presumably it applies to the slab reheat furnaces #1-4 identified in Section 7.7 Slab Reheat Furnaces, since those are the only slab furnaces at the facility. We request that IEPA specifically identify the slab reheat furnaces #1-4 as the emissions units to which the PM_{10} emission limit applies.
- (7) 5.3.2 d.i.E of the draft CAAPP permit sets a PM_{10} emission limit of 2.15 ng/J (0.005 lb/mmBtu) of heat input from the steel works boilers located at the steel making facilities at steel plants in the vicinity of Granite City. This section fails to specifically identify boilers to which the PM_{10} limit applies. Thus, the PM_{10} limit is not enforceable as required. Presumably it applies to boilers #1-10 and boilers #11 and #12 identified in Section 7.10 since these are the only existing boilers at the facility. We request that IEPA specifically identify boiler #1-10 and Boilers #11 and #12 as the emissions units to which the PM_{10} emission limit applies.
- (8) 5.3.2 d.i.F of the draft CAAPP permit establishes a PM_{10} emission limit of 27.24 kg/hr (60 lbs/hr) and 0.1125 kg/Mg (0.225 lbs/T) of total steel in process whichever limit is more stringent for the total of all basic oxygen furnace processes described in 35 IAC 212.446(a) of Subpart R and measured at the BOF stack located at steel plants in the vicinity of Granite City. The draft permit fails to identify specifically which basic oxygen furnace process combined must comply with this PM_{10} limit. Without such a list, the PM_{10} emission limit is not enforceable. Citizens can only speculate which processes are included. We request that IEPA include a list of specific basic oxygen furnace process which must comply with this PM_{10} emissions limit.
- (9) 7.1.3.e fails to state the emissions units to which the 20% opacity limit applies. Without specifying a list of the such emissions units, the permit is practically unenforceable.

F. Lack of Clarity Concerning the Timing or Frequency of a Required Action

- (1) 5.5.a calls for visual inspections of air pollution control equipment, but fails to specify the frequency with which it should take place or a reporting requirement that allows the public determine whether the permittee has performed the inspection. 5.5a should include both a frequency and reporting requirement.
- (2) 5.8.i says that the permittee "shall" install, operate, and maintain a continuous monitoring system to measure and record the H_2S content, but fails to provide a date by which the permittee must take that action, which effectively allows the permittee to delay the requirement indefinitely. 5.8.i should contain a date by which the permittee must comply with the requirement.
- (3) 7.2.3-2.a.i., 7.2.3-3.a, and 7.2.3-4.a all require a "one pass observation" without specifying when or how often such a pass must take place. The provisions

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should, at a minimum, list the frequency with which such observations shall take place. Otherwise, there is absolutely no basis for practical enforceability.

- (4) 7.1.7 and 7.2.10.a.i.B use “per permit cycle” as a temporal unit to measure the frequency with which the permittee must comply with a specific requirement in order to be in compliance. This presents a problem in that no such permit cycle has been created in this case. This CAAPP permit will be the first ever issued to the USS-GCW and is coming eleven years after the first application was submitted for the facility. In the interests of enforceability and clarity, IEPA should rephrase these requirements in terms of five years, the maximum amount of time for which a permit may remain valid.

G. Vagueness as a Bar to Enforceability

Permit conditions must contain sufficient detail to ensure that the source clearly understands its obligations and how compliance with these requirements will be evaluated. Vague standards result from provisions that are so unspecific that they render compliance to be completed within the arbitrary discretion of the permittee. There are a number of these provisions in the permit:

- (1) 5.9.3.c allows the operator to keep written records “as may be needed for compliance.” Here, USS-GCW may keep records entirely at its disposal, which renders the requirement completely practically unenforceable.
- (2) 5.12.1.b allows USS-GCW to calculate emissions using “other generally accepted engineering calculations.” USS-GCW can thus calculate emissions in an infinite ways, presumably so long as it could later produce an “expert” in when its practices were challenged. This potential scenario results from too random of a standard. The provisions should either list the acceptable ways to calculate emissions, adding a catch-all provision that allows it to update or further restrict these ways during the 5-year permit period or state more specific criteria by which the public and permittee can determine whether a calculation is “generally accepted.”
- (3) 7.2.5-3(b)(i) and 7.4.5-1.a requires the permittee to operate emission units and associated pollution control equipment “in a manner consistent with good air pollution control practice.” This provision should reference some standard of good air pollution control practices. As with the previous provision discussed, it allows sets no enforceable standard by which to judge USS-GCW.
- (4) Any standard that is based on “manufacturer’s specifications” or “manufacturer’s instructions” is practically unenforceable, as the information contained therein is not included in the permit, is not necessarily readily available to the public, and is subject to change at the manufacturer’s will. The EPA Administrator has held that IEPA must “provid[e] information on where the applicable specifications can be located” when they use such terms in CAAPP permits. *In the Matter of Onyx Environmental Services*, Petition number V-2005-1; CAAPP No. 163121AAP, Decision of then-acting Administrator, Stephen Johnson (February 1, 2006), 2006

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EPA CAA Title V LEXIS 4. As such, the following sections should be amended to include such information in order to ensure practical enforceability:

- a. 7.3.10.b.ii
- b. 7.4.5-1.b.ii
- c. 7.4.9.b.vi.D
- d. 7.5.5-1.b.ii
- e. 7.5.8.b.i.D
- f. 7.8.6.b.ii.B
- g. 7.8.10.c
- h. 7.10.3.g.iii

- (5) A number of provisions provide standards that make require the permittee to take some action that is "normal." This standard is so vague that it is practically unenforceable: "normal" is a completely subjective and discretionary term. USEPA has agreed before that such a standard is unenforceable in CAAPP permits and that "IEPA must make clear either in the permit or statement of basis what constitutes 'normal' operating conditions for purposes of this test." *In the Matter of Onyx Environmental Services*, Petition number V-2005-1; CAAPP No. 163121AAP, Decision of then-acting Administrator, Stephen Johnson (February 1, 2006), 2006 EPA CAA Title V LEXIS 4. The unenforceable "normal" standard appears a number of places in the draft CAAPP Permit. The following provisions need to be more specific so as to ensure practical enforceability:

- a. 7.2.3-7.b.i
- b. 7.2.3-8.a.i
- c. 7.2.7-3.a.ii.B
- d. 7.2.7-3.b.iv.A
- e. 7.2.7-3.b.v.A.1
- f. 7.2.7-3.b.v.B.1
- g. 7.2.7-3.b.v.C.1
- h. 7.2.10.a.v.A
- i. 7.4.9.a.iii.A
- j. 7.4.11.c.i.A
- k. 7.4.11.c.i.B
- l. 7.5.7-2.a.v.A
- m. 7.5.8.a.iv.A
- n. 7.7.10.g.A.1
- o. 7.7.10.g.A.2
- p. 7.8.11.b.ii.D
- q. 7.8.11.b.iii.B
- r. 7.10.9.e.i.A
- s. 7.13.3.c
- t. 7.13.5.a.i.C

- (6) 7.7.5.a allows the permittee to act with "all reasonable efforts." This standard is completely subjective and places the regulated action entirely within the

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- unfettered discretion of the permittee. This standard is patently arbitrary and thus unenforceable.
- (7) 7.8.12.b.iii permits the permittee to correct malfunctions “as soon as practicable after their occurrence.” Without, at a minimum, defining “practicable,” the permittee could extend the length of operating malfunctioning equipment indefinitely. This standard is unenforceable for lack of definition.
 - (8) 7.12.b.iii calls for the permittee to maintain gauges and other testing devices “in proper working order.” This is impossible to enforce without some sort of standard that describes the variance of “working order” to be tolerated.

In 2005 the USEPA outlined specific terms as unenforceable as a practical matter in *In the Matter of Midwest Generation, LCC, Waukegan Generating Station*.¹⁴¹ The specified terms are unenforceable because the “permit fails to explain or define” them.¹⁴² Specified undefined terms deemed unenforceable as a practical matter include “operating parameters” and “reasonable steps.”¹⁴³ Both of these terms are used in numerous provisions of the USS-GCW draft CAAPP permit, as detailed below.

According to the USEPA, “[t]he permit is not clear about what operational conditions and operating parameters the permittee must be monitoring at a minimum and, therefore, the term is practically unenforceable.”¹⁴⁴ The following provisions of the USS-GCW provisions contain the undefined and thus unenforceable term “operating parameters:”

- (1) 5.10.3.a.iv
- (2) 7.3.11.b.iv.B
- (3) 7.3.11.b.v.B
- (4) 7.5.9.b.iv.A
- (5) 7.5.9.b.iv.B
- (6) 7.7.5.b.ii,
- (7) 7.8.6.c
- (8) 7.8.10.b
- (9) 7.8.11.b.ii.D
- (10) 7.8.11.b.iii.B
- (11) 7.10.3.g.iii.B
- (12) 8.6.2.c.

The EPA Administrator expressed a similar objection to the use of the term “reasonable steps: “Because neither the SIP nor [the permit section] species criteria to determine what constitutes ‘reasonable steps’ . . . the condition is practicably unenforceable.”¹⁴⁵ The draft

¹⁴¹ 2005 EPA CAA Title V LEXIS 14.

¹⁴² *Id.* at *27.

¹⁴³ *Id.* at *27, *29.

¹⁴⁴ *Id.* at *27.

¹⁴⁵ *Id.* at *30. *See also* *In the Matter of Midwest Generation, LCC, Joliet Generating Station*, 2005 EPA CAA Title V LEXIS 12, *59 (“[B]ecause the permit condition does not specify criteria, consistent with the SIP, to determine whether a unit can be ‘reasonably’ repaired or what constitutes ‘reasonable’ steps during malfunction or breakdown, the condition is practicably unenforceable. U.S. EPA grants the petition on this

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CAAPP permit for USS-GCW only contains this term at condition 9.10.2.a.iv: "During the period of the emergency the Permittee took all *reasonable steps* to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit." This term is undefined in the draft permit and is therefore practicably unenforceable as contained in 9.10.2.a.iv.

H. Lack of Clarity Regarding MACT Requirements.

The draft CAAPP recites that the USS-GCW facility (without the cogeneration plant and new coke plant which are under construction and inappropriately excluded from this permit and permit package) is subject to five MACT standards – 40 CFR Part 63 Subparts L (coke oven batteries), CCCCC (coke oven operations, including pushing and quenching), ZZZZ (reciprocating internal combustion engines), FFFFF (integrated iron and steel), and CCC (steel pickling – HCl process). See, e.g., draft CAAPP section 5.3.8. The following permit sections state that the facility "shall develop and implement" a startup shutdown and malfunction plan in accordance with the governing MACT standard: draft CAAPP sections 7.2.5-3.a.ii (for coke oven operations subject to Subpart CCCCC) and 7.2.5-3.b.ii (for coke oven batteries subject to Subpart L). The following permit sections state that the facility shall "develop" – rather than "develop and implement" – an SSM plan in accordance with the governing MACT standard: draft CAAPP sections 7.4.5-2.a (for blast furnace operations subject to Subpart FFFFF), 7.5.5-2.a (for basic oxygen furnace operations subject to Subpart FFFFF), and 7.8.12.b.ii.A (HCl pickling operations subject to Subpart CCC).

No deadlines are specified, even though the governing MACT standards have been in effect for some time and such plans should already be developed and in place. Neither the draft CAAPP nor the Project Summary provides any information regarding the status of USS-GCW's startup shutdown and malfunction plans. At the public hearing, we inquired as to the status of the plans. IEPA subsequently indicated that USS-GCW had submitted to the Agency SSM plans for the coke oven operations and integrated iron and steel MACT regulations, but had not submitted SSM plans for the coke oven battery, reciprocating internal combustion engine, or steel pickling-HCl process MACT regulations.¹⁴⁶ Although the regulations do not currently require that such plans be submitted to IEPA, they should already be in existence and in operation. However, the draft CAAPP states, in prospective language, that USS-GCW shall develop (and implement) them. There is no indication whether the SSM plans that USS-GCW

issue. IEPA must remove 'reasonably' and 'reasonable' from sections 7.2.3(b)(ii), 7.3.3(b)(ii), and 7.4.3(b)(ii), define the terms, or provide criteria to determine 'reasonably' and 'reasonable,' and revise the condition to be consistent with the provisions of the underlying applicable requirement."); In the Matter of Midwest Generation, LCC, Romeoville Generating Station, 2005 EPA CAA Title V LEXIS 13, *54-55; In the Matter of Midwest Generation, LCC, Fisk Generating Station, 2005 EPA CAA Title V LEXIS 4, *44-45. In the Matter of Midwest Generation, LCC, Crawford Generating Station, 2005 EPA CAA Title V LEXIS 5, *41-42.

¹⁴⁶ Illinois Environmental Protection Agency, *Questions Pending from U.S. Steel Title V Public Hearing*, Jan. 15, 2009, at 1 (provided to IEC by IEPA). Attached here to as Exhibit 1.

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submitted to IEPA were determined to satisfy the SSM plan requirements in the MACT regulations, and if not whether IEPA set any deadlines for preparing acceptable plans. Nor is there any indication whether USS-GCW must prepare the non-submitted SSM plans, if they do not otherwise exist, by any particular deadlines, or whether they need only be prepared at some indefinite time in the unlimited future.

Finally, although the draft CAAPP contains an SSM exemption for emissions from the engine for the #4 coke oven gas booster pump (see above), which is subject to emission limits under 40 CFR Part 63 Subpart ZZZZ, and the MACT regulations require SSM plans for at least some of the internal combustion engines subject to it, 40 CFR § 63.6665 and Table 8 to Subpart ZZZZ of Part 63, the draft CAAPP does not require USS-GCW to develop an SSM plan for the engine subject to the Subpart ZZZZ MACT.

Finally, although the draft CAAPP contains an SSM exemption for emissions from the engine for the #4 coke oven gas booster pump (see above), which is subject to emission limits under 40 CFR Part 63 Subpart ZZZZ, and the MACT regulations require SSM plans for at least some of the internal combustion engines subject to it, 40 CFR § 63.6665 and Table 8 to Subpart ZZZZ of Part 63, the draft CAAPP does not require USS-GCW to develop an SSM plan for the engine subject to the Subpart ZZZZ MACT.

XI. The Draft Permit Fails to Support Some Conclusions as to Insignificant Activities

1. The Draft CAAPP Lacks Supporting Calculations for Identifying Tanks #306-310, 800 and 815 as Insignificant Activities.

Condition 3.1.1 g. of the draft CAAPP permit lists tanks #306-310, #800 and #815 as insignificant activities. The 1996 GCW CAAPP application lists tanks #306-310, 800 and 815 as holding hydrochloric acid or liquids with similar properties¹⁴⁷. Hydrochloric acid is listed as a hazardous air pollutant. Therefore, in order to qualify as an insignificant activity, GCW must demonstrate that each tank has HAP emissions less than 0.1 lbs/hour as established in 35 IAC 201.211(a)(2). The GCW application provided no justification or supporting calculations for listing these tanks as insignificant activities as required under 35 IAC 201.211(b). Therefore, we request that the IEPA remove these tanks from section 3.1.1(g) of the draft permit.

2. The Draft CAAPP Lacks Supporting Calculations for Identifying VOM Emissions from Scale Pits as Insignificant Activities.

¹⁴⁷ 1996 GCW Title V CAAPP Application Volume VII, Tab G, 297-CAAPP Finishing Insignificant Activities, Exhibit 297-2.

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Condition 3.1.1 g of the draft CAAPP permit lists Scale Pits as an insignificant activity. The 1996 GCW CAAPP application¹⁴⁸ claims that VOM emissions from the scale pits are insignificant pursuant to 35 IAC 201.211(a)(1). However, the application does not provide any calculations to support the claim that hourly VOM emissions are less than 1.0 pounds. The application merely claims that the oil used in this process has a low vapor pressure. The vapor pressure of the oil is not provided. The description of the activity fails to meet the requirements of 35 IAC 201.211(b) which requires among other information that the facility provide “the emissions of regulated air pollutants in lb/hr and tons/yr”¹⁴⁹ and “the means by which emissions were determined or estimated”¹⁵⁰. We request that the IEPA remove the scale pits from the list of insignificant activities in section 3.1.1 g. of the draft permit.

XII. The Project Summary Does Not Satisfy Title V/CAAPP Requirements.

The CAA and the corresponding Illinois statute require the publication of a statement of basis, known as a project summary in Illinois,¹⁵¹ with each draft Title V permit. The federal requirement is found in 40 C.F.R. § 70.7(a)(5): “The permitting authority shall provide a statement that sets forth the legal and factual basis for the draft permit conditions (including references to the applicable statutory or regulatory provisions). The permitting authority shall send this statement to EPA and to any other person who requests it.” And Illinois code echoes the federal requirement in 415 ILCS 5/39.5(8)(b): “The Agency shall prepare a draft . . . permit and a statement that sets forth the legal and factual basis for the draft . . . permit conditions, including references to the applicable statutory or regulatory provisions. The Agency shall provide this statement to any person who requests it.”

The USEPA has released several guidance documents explaining that the statement of basis should not just summarize the permit but “should contain information not found in the permit, which explains the decisions made by the permitting authority in developing the permit and allow[] review of those decisions by USEPA and the public.”¹⁵² The USEPA has also stated:

[The statement of basis] should highlight elements that EPA and the public would find important to review. Rather than restating the permit, it should list anything that deviates from simply a straight recitation of

¹⁴⁸ 1996 GCW Title V CAAPP Application Volume VII, Tab G, 297-CAAPP Finishing Insignificant Activities, Exhibit 297-2.

¹⁴⁹ 35 IAC 201.211(b)(3)

¹⁵⁰ 35 IAC 201.211(b)(4)

¹⁵¹ U.S. Environmental Protection Agency, *Review of Illinois' Title V Operating Permit Program*, August 2004, Final report released Oct. 30, 2006 at 7 (citing Consolidated Edison Company (II-2001-08), Sept. 30, 2003, 39-45). Attached here to as Exhibit 16.

¹⁵² U.S. Environmental Protection Agency, *Review of Illinois' Title V Operating Permit Program*, August 2004, Final report released Oct. 30, 2006 at 7 (citing Consolidated Edison Company (II-2001-08), Sept. 30, 2003, 39-45). Attached here to as Exhibit 16.

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requirements . . . and provide the permitting authority, the public, and EPA with a record of the applicability and technical issues surrounding the issuance of the permit.¹⁵³

In its 2004 review of IEPA Title V permitting program, the USEPA found that IEPA published permits were consistently deficient:

Project summaries do not adequately discuss the decision-making that went into the development of the Title V permit. Specific information required, but not present, in IEPA project summaries includes: the rationale for any non-applicability determinations present in the permit; the basis for review of the facility's compliance status; the rationale for periodic monitoring provisions (or lack thereof) established in the permit; and an explanation of any Title I actions taken in the Title V permit.¹⁵⁴

In 2008 the IEPA ignored the USEPA's 2006 guidance when it published the draft CAAPP permit and project summary for USS-GCW. Noncompliance with the project summary guidance is especially concerning due to USS-GCW's highly complex facility and its high pollutant rates in the midst of a residential community. The public should have the opportunity to review the facility's project summary so as to learn about the facility's permit development, compliance requirements, and deviations from permit provisions.

The draft project summary for USS-GCW is flawed in the following ways and requires remedy to avoid causing permit deficiencies:¹⁵⁵

¹⁵³ U.S. Environmental Protection Agency, *Review of Illinois' Title V Operating Permit Program*, August 2004, Final report released Oct. 30, 2006 at 7 (citing Consolidated Edison Company (II-2001-08), Sept. 30, 2003, 39-45). Attached here to as Exhibit 16.

¹⁵⁴ U.S. Environmental Protection Agency, *Review of Illinois' Title V Operating Permit Program*, August 2004, Final report released Oct. 30, 2006 at 7 (citing Consolidated Edison Company (II-2001-08), Sept. 30, 2003, 39-45). Attached here to as Exhibit 16.

¹⁵⁵ In the Matter of Midwest Generation, LCC, Waukegan Generating Station, 2005 EPA CAA Title V LEXIS 14, at *21-22 (holding that "the permitting authority's failure to adequately explain its permitting decisions in the statement of basis or elsewhere in the permit record is such a serious flaw that the adequacy of the permit itself is in question" and requiring the IEPA to reopen and renotice the permit "with a statement of basis that describes its permitting decisions, the permitting authority is ensuring compliance with the fundamental title V procedural requirements of adequate public notice and comment required by . . . the Act . . . , as well as ensuring that the rationale for terms such as the selected monitoring method, or lack of monitoring, is clearly explained and documented in the permit record."). See also In Re Port Hudson Operation Georgia Pacific, Petition No. 6-03-01, at pages 37-40 (May 9, 2003) In Re Doe Run Company Buick Mill and Mine, Petition No. VII-1999-001, at pages 24-25 (July 31, 2002) ("Doe Run"); In Re Fort James Camas Mill, Petition No. X-1999-1, at page 8 (December 22, 2000).; USEPA, Region 5, Letter to the State of Ohio from the USEPA, providing additional guidance on the content of an adequate statement of basis, Dec. 20, 2001, at 1-3, *available at* <http://www.epa.gov/rgytgmj/programs/artd/air/title5/t5memos/sbguide.pdf> (emphasizing "a [statement of basis] should include (1) a description of the facility to be permitted; (2) a discussion of any operational flexibility that will be utilized; (3) the basis for applying the permit shield; (4) any regulatory applicability determinations; and (5) the rationale for the monitoring methods selected." The letter further

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- a. Emission reports for all pollutants in 2004 and 2006 are identical, to the hundredth of a ton, in section V.d, on page 16 of the Project Summary. The Project Summary indicates the emission rates are based on USS's Annual Emission Reports as sent to IEPA. However, it is highly improbable that the emission rates in two different years would be absolutely identical for even one pollutant, let alone all pollutants. The IEPA should check to see whether there were some errors or misunderstandings in the submitted reports. At the very least, the project summary should provide an explanation as to why all emission limits correspond with the report so as to sufficiently notify the public of any problem in the submission of emission reports.
- b. The Initial MACT Compliance Test chart located in section V.e.i. on page 17 lacks a date of submission to the IEPA for pickling line. Missing text fails to indicate permit conditions as required by federal and state laws.¹⁵⁶
- c. The New Source Review/Title I conditions paragraph in section VI.b. on page 18 contains two inadequacies:
 - a. It is missing text; the last sentence is incomplete. Missing text fails to indicate permit conditions as required by federal and state laws.¹⁵⁷
 - b. Second to last sentence references possible changes to pre-existing Title I permits without indicating which permits and what "possible" changes are requested or proposed in the CAAPP. This exclusion contradicts the USEPA's guidance for the Illinois Title V program, requiring that "an explanation of any Title I actions taken in the Title V permit" appear in the project summary of a Title V permit application.¹⁵⁸
- d. The project summary lacks an explanation of the exclusion of emission reduction credits, cogeneration, and coke plant permits.
- e. The project summary fails to discuss the applicability or inapplicability of insignificant regulations and provisions lacking periodic monitoring standards. The USEPA requires IEPA published project summaries to include "the rationale for periodic monitoring provisions (or lack thereof) established in the permit."¹⁵⁹ However, the project summary for USS-GCW fails to indicate limits for which there is no monitoring and to provide explanation of why the permit lacks monitoring for certain provisions. Rather, the project summary simply enumerates

recommending the following elements: 1) "discussion of the monitoring and operational requirements," 2) "discussion of applicability and exemptions," 3) "explanation of any conditions from previously issued permits that are not being transferred to the Title V permit," 4) "discussion of streamlining requirements," and 5) other information including an enumeration of any Title V permits issued for the same site and applicant, attainment status, permitting history, and compliance history.). Attached hereto at Exhibit 38.

¹⁵⁶ 40 C.F.R. § 70.7(a)(5); 415 ILCS 5/39.5(8)(b).

¹⁵⁷ 40 C.F.R. § 70.7(a)(5); 415 ILCS 5/39.5(8)(b).

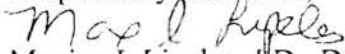
¹⁵⁸ U.S. Environmental Protection Agency, *Review of Illinois' Title V Operating Permit Program*, August 2004, Final report released Oct. 30, 2006 at 7 (citing Consolidated Edison Company (II-2001-08), Sept. 30, 2003, 39-45). Attached here to as Exhibit 16.

¹⁵⁹ U.S. Environmental Protection Agency, *Review of Illinois' Title V Operating Permit Program*, August 2004, Final report released Oct. 30, 2006 at 7 (citing Consolidated Edison Company (II-2001-08), Sept. 30, 2003, 39-45). Attached here to as Exhibit 16.

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- the monitoring provisions in the permit despite the USEPA's guidance that "[r]ather than restating the permit, [the permitting authority] should list anything that deviates from simply a straight recitation of requirements."¹⁶⁰
- f. Description of 2005-2007 enforcement action is incomplete as it stands in section V.b on pages 15-17. Further, the project summary potentially confuses reviewers as it fails to mention the to-be-produced compliance schedule reference (see section V.b, pages 12-13). Per the USEPA, the project summary requires "the basis for review of the facility's compliance status."¹⁶¹ Thus the permit should include details of the finalized compliance plan and until then, at the very least, should include a reference to the developing compliance plan. Moreover, federal¹⁶² and state¹⁶³ regulations require the project summary be made available to the public and USEPA has stated that the statement of basis "should highlight elements that EPA and the public would find important to review."¹⁶⁴ The public would definitely be interested in reviewing an enforcement action against USS-GCW.
- g. The project summary provides a summary of key requirements of applicable regulations for coal handling (7.1) but not for coke production. This is concerning because coke production is a bigger source of harmful emissions than coal handling. The project summary just contains a listing of source of requirements; however, even that is incomplete as it omits the Battery B permit. Further, it does not explain how applicable regulations apply and to what activities they apply or do not apply. The Battery B permit omission fails to fulfill the USEPA's recommendation that all permits issued to the same site and applicant be enumerated in the project summary.¹⁶⁵

Respectfully submitted,



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¹⁶⁰ U.S. Environmental Protection Agency, *Review of Illinois' Title V Operating Permit Program*, August 2004, Final report released Oct. 30, 2006 at 7 (citing Consolidated Edison Company (II-2001-08), Sept. 30, 2003, 39-45). Attached here to as Exhibit 16.

¹⁶¹ U.S. Environmental Protection Agency, *Review of Illinois' Title V Operating Permit Program*, August 2004, Final report released Oct. 30, 2006 at 7 (citing Consolidated Edison Company (II-2001-08), Sept. 30, 2003, 39-45). Attached here to as Exhibit 16.

¹⁶² 40 C.F.R. § 70.7(a)(5).

¹⁶³ 415 ILCS 5/39.5(8)(b).

¹⁶⁴ U.S. Environmental Protection Agency, *Review of Illinois' Title V Operating Permit Program*, August 2004, Final report released Oct. 30, 2006 at 7 (citing Consolidated Edison Company (II-2001-08), Sept. 30, 2003, 39-45). Attached here to as Exhibit 16.

¹⁶⁵ Letter to the State of Ohio from the USEPA, Region 5, providing additional guidance on the content of an adequate statement of basis, Dec. 20, 2001, at 3, available at <http://www.epa.gov/rgytgrnj/programs/artd/air/title5/t5memos/sbguide.pdf>.

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St. Louis, MO 63130

Attorneys for American Bottom Conservancy

cc: Acting Regional Administrator, U.S. Environmental Protection Agency, Region 5

**BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

IN THE MATTER OF THE TITLE V)
PERMIT FOR)
)
UNITED STATES STEEL CORPORATION) PERMIT NO. 96030056
GRANITE CITY WORKS)
IN GRANITE CITY, IL)
)
ISSUED BY THE ILLINOIS ENVIRONMENTAL)
PROTECTION AGENCY)
)
_____)

**AMERICAN BOTTOM CONSERVANCY'S
PETITION TO OBJECT TO TITLE V PERMIT
FOR
UNITED STATES STEEL CORPORATION – GRANITE CITY WORKS
ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

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**PETITION TO OBJECT TO TITLE V PERMIT
FOR U.S. STEEL CORPORATION'S GRANITE CITY WORKS**

Pursuant to § 505(b)(2) of the Clean Air Act, 42 U.S.C. § 7661d(b)(2), and 40 C.F.R. § 70.8(d), the American Bottom Conservancy (ABC), through undersigned representatives at the Interdisciplinary Environmental Clinic at the Washington University School of Law (IEC), hereby petitions the Administrator of the United States Environmental Protection Agency (USEPA) to object to the Title V - Clean Air Act Permit Program (CAAPP) Permit for U.S. Steel Corporation's Granite City Works (USS-GCW) in Granite City, Illinois (Permit No. 96030056). The permit was issued by the Illinois Environmental Protection Agency (IEPA) on September 3, 2009. A copy of the permit is provided as Exhibit 1 on the accompanying CD, which contains all the exhibits to this Petition.

Petitioner respectfully requests the Administrator to object to the permit because it is not in compliance with numerous requirements of the Clean Air Act. A comprehensive review and objection by USEPA is especially vital in this case because the facility is the greatest source of air pollution in an environmental justice area that USEPA recently concluded had the highest cancer rate in the nation. Moreover, the facility has been out of compliance with air pollution requirements for at least the last 12 calendar quarters, with forty-five violations still not under enforceable schedules of compliance.

INTRODUCTION

USS-GCW first applied in March 1996 for a CAAPP/Title V permit, which IEPA determined was complete in May 1996.¹ The IEPA published a draft permit for USS-GCW in 2003, but took no further action on that draft. As a result, IEPA did not meet the statutory deadline for final action on the 1996 permit application.²

USS-GCW submitted a new permit application in 2007. In response, IEPA published a new draft CAAPP permit and Project Summary for public comment in October 2008.³ A public hearing regarding the new draft permit occurred on December 2, 2008, after which IEPA provided follow-up answers in

¹ All references to CAAPP permitting encompass both federal and Illinois state regulations regarding Title V and CAAPP permits. The Illinois CAAPP requires adherence not only to state law and regulations regarding CAAPP permits, but also to the federal Clean Air Act Title V program, 42 U.S.C. §§7661 - 7661f and 40 C.F.R. Part 70, due to the Supremacy Clause of the U.S. Constitution and Illinois state statutory provision requiring permit provisions to comply with the Clean Air Act: "The [Illinois Environmental Protection] Agency shall issue CAAPP permits under this Section consistent with the Clean Air Act and regulations promulgated thereunder and this Act and regulations promulgated thereunder." 415 ILL. COMP. STAT. 5/39.5(3)(a). Furthermore, the Illinois statute requires air pollution operating permits to "[i]ncorporate and identify all applicable emissions monitoring and analysis procedures or test methods required under the Clean Air Act, regulations promulgated thereunder, this Act, and applicable Board regulations, including any procedures and methods promulgated by USEPA pursuant to Section 504(b) or Section 114(a)(3) of the Clean Air Act." *Id.* at 5/39.5(7(d)).

² 415 ILL. COMP. STAT. 5/39.5(j) (2005) ("The Agency shall issue or deny the CAAPP permit within 18 months after the date of receipt of the complete CAAPP application Where the Agency does not take final action on the permit within the required time period . . . the failure to act shall be treated as a final permit action.").

³ Draft CAAPP Permit, U.S. Steel Corporation Granite City Works (IEPA, Oct. 6, 2008) (Exhibit 2); Project Summary for the Draft Clean Air Act Permit Program (CAAPP), U.S. Steel Corporation/Granite City Works (IEPA, Oct. 15, 2008) (Exhibit 3).

January 2009 to questions the agency could not answer at the time of the hearing.⁴ Subsequently, on February 27, 2009, ABC submitted substantial written comments.⁵

IEPA issued a Proposed CAAPP Permit on June 15, 2009,⁶ which was received by USEPA on June 19, 2009. USEPA did not respond in writing to the Proposed CAAPP Permit within the 45-day review period provided by Section 502(b)(1) of the Clean Air Act, which expired on August 3, 2009. IEPA issued the Final CAAPP Permit for the facility, along with a response to public comments, on September 3, 2009.⁷ ABC files this Petition to Object to the September 3rd Final CAAPP Permit within the 60-day period provided by Section 502(b)(2) of the Clean Air Act, which expires on October 2, 2009.

ABC'S INTEREST IN THE ENVIRONMENTAL IMPACTS OF THE FACILITY

ABC is a grassroots organization based in the Metro-East St. Louis region, with members residing and recreating in and around Granite City. USEPA reported that Madison County (in the Metro-East region), in which USS-GCW is located, has the highest population, second densest population, and highest percentage of urban land cover in the Metro-East region.⁸ ABC's primary goal is to protect community members from air, water, and land pollution. This proves challenging in an air pollution nonattainment region for fine particulate matter (PM_{2.5})⁹ and ground-level ozone.¹⁰ In addition, IEPA recently announced plans to designate Granite City as a nonattainment area for lead, due to recent revisions to the National Ambient Air Quality Standard for lead.¹¹

USS-GCW, located in a residential community and adjacent to a state park, is the primary source of fine particle pollution in the region,¹² and emits substantial amounts of many other pollutants that threaten human health and the environment. In addition, USS-GCW has a history of air pollution violations. In September 2005, IEPA filed an air pollution complaint against USS-GCW. After two amended complaints adding further violations were filed, the matter was settled in December 2007.¹³ However,

⁴ Questions Pending from U.S. Steel Title V Public Hearing (IEPA, Jan. 15, 2009) (Exhibit 4).

⁵ Letter from Maxine I. Lipeles & Peter W. Goode, IEC, to Annet Godiksen, Hearing Officer, IEPA (Feb. 27, 2009) (Exhibit 5).

⁶ Proposed CAAPP Permit for U.S. Steel Corporation Granite City Works (IEPA, June 15, 2009) (Exhibit 6).

⁷ Title V - Clean Air Act Permit Program (CAAPP) Permit for U.S. Steel Corporation Granite City Works (IEPA, Sept. 3, 2009) (Exhibit 1); Responsiveness Summary for Public Questions and Comments on the CAAPP Operating Permit Application from U. S. Steel Corporation Granite City Works (IEPA, Sep. 3, 2009) (Exhibit 7).

⁸ IEPA, *Technical Support Document for the Recommended Nonattainment Boundaries in Illinois for the 24-Hour PM_{2.5} National Ambient Air Quality Standard*, Dec. 18, 2007, at 27, available at <http://www.epa.state.il.us/public-notices/2007/pm25-standards/recommendations.pdf>.

⁹ The USEPA designated Madison County, Illinois a PM_{2.5} nonattainment region on December 16, 2008. USEPA, Green Book, *Particulate Matter (PM_{2.5}) Nonattainment Area/State/County Report*, Dec. 16, 2008, available at <http://www.epa.gov/oar/oaqps/greenbk/qnca.html#7040>.

¹⁰ The USEPA designated Madison County, Illinois a ground-level ozone nonattainment region on December 16, 2008. USEPA, *8-Hour Ozone Nonattainment Area/State/County Report*, Dec. 16, 2008, available at <http://www.epa.gov/oar/oaqps/greenbk/gnca.html#7040>.

¹¹ "Recommended Lead Nonattainment Area Designations in Illinois." IEPA Presentation to East-West Gateway Air Quality Advisory Committee, September 29, 2009 (Exhibit 8).

¹² USS-GCW has the highest annual mean values of PM_{2.5} emissions. *Id.* at 9, table 2. IEPA, *Technical Support Document for the Recommended Nonattainment Boundaries in Illinois for the 24-Hour PM_{2.5} National Ambient Air Quality Standard*, Dec. 18 2007, at 23, available at <http://www.epa.state.il.us/public-notices/2007/pm25-standards/recommendations.pdf>.

¹³ See Consent Order, *Illinois ex rel Madigan v. U.S. Steel Corporation, Inc.*, No. 05-CH-750 (Dec. 18, 2007, Circuit Court, Third Judicial Circuit, Madison County, Ill.) (Exhibit 9); see also Second Supplemental Complaint, *Illinois ex rel Madigan v. U.S. Steel Corporation, Inc.*, No. 05-CH-750 (Oct. 17, 2007, Circuit Court, Third Judicial Circuit, Madison County, Ill.) (alleging twenty-four violations) (Exhibit 10).

IEPA has yet to finalize a compliance schedule, and in 2009 IEPA issued two new Notices of Violation addressing twenty-one more violations during 2008.¹⁴ The conditions causing the violations apparently have not yet been remedied as USEPA identifies the facility as having been out of compliance for at least 12 consecutive calendar quarters.¹⁵

ABC recognizes the difficult economic circumstances currently facing the company, its employees, and the country at large. ABC also appreciates the importance of the plant's jobs and payroll for its employees and the community. Accordingly, ABC submits these comments in the spirit of ensuring that the facility operates in a manner that fully complies with the law and comprehensively protects the health of its neighbors.

ENVIRONMENTAL JUSTICE BACKGROUND

Due to the living conditions in and around Granite City, this permit must be reviewed in an environmental justice context. Environmental justice has been established as a key component of federal decision making. Under Presidential Executive Order 12898:

[E]ach Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States.¹⁶

Environmental justice considerations heighten the already strong legal requirements of extensive public notice, meaningful statements that fully set forth the bases for permit conditions, and emissions monitoring requirements sufficient to ensure that USS-GCW is operating within its permit limits. Where the law provides for judgment in permit decisions, environmental justice considerations favor the most protective permit possible. Contrary to IEPA's misguided attempt to construe our environmental justice concerns as an effort to seek new emissions limits for this facility,¹⁷ ABC believes that the strong environmental justice aspects of this community warrant that this permit should include the strongest possible measures to ensure compliance with existing regulations, along with well-documented rationales by IEPA for all compliance monitoring decisions and the most thorough review possible by USEPA of permit conditions.

The population around this facility demonstrates the need for a particularly close look at this permit. Over 95,000 people live within five miles of the facility, of whom 53.3% are minority and 25.9% live below the poverty level.¹⁸ The area around USS-GCW contrasts starkly with Madison County as a whole, where only 12.4% of the population is minority and 11.3% live below the poverty level.¹⁹

Within five miles of the facility, the Granite City School District has 10 schools and the city of Venice has an elementary school and an Early Childhood Center.²⁰ Within just one mile, the city of Madison has

¹⁴ USEPA, Enforcement & Compliance History Online (ECHO), at <http://www.epa-echo.gov/cgi-bin/get1cReport.cgi?tool=echo&IDNumber=1711900153> (last visited Sept. 27, 2009).

¹⁵ *Id.*

¹⁶ Exec. Order No. 12898, 59 Fed. Reg. 7629 (Feb. 16, 1994).

¹⁷ Responsiveness Summary at 23 (Exhibit 7).

¹⁸ USEPA, Environmental Justice Graphic Assessment Tool (identifying the demographic profile within 5 miles of the USS-GCW facility) (Exhibit 11).

¹⁹ U.S. Census Bureau, *State & County Quick Facts: Madison County, IL* (updated Sep. 4, 2009), available at <http://quickfacts.census.gov/qfd/states/17/17119.html> (Exhibit 12);

²⁰ <http://www.venice.k12.il.us/index.php?Itemid=1>; <http://www.granitecityschools.org/schools/index.html>.

five schools, which overwhelmingly serve minority and low-income students.²¹ Of the students attending Madison City schools, 94% are minority, and 80% qualify for free and reduced lunch, compared to Madison County schools as a whole where 23.5% of the students are minority and 28% qualify for free and reduced lunch.²² Moreover, Granite City's Early Childcare Center, which serves the youngest and most vulnerable demographic, is directly across the street from the coal processing area for the facility's coke production unit. Granite City's hospital - Gateway Regional Medical Center - and a low-income public housing project - Kirkpatrick Homes - are also located within a few blocks of USS-GCW.²³

Many popular recreation facilities are also near the facility. Horseshoe Lake State Park borders the coke plant and is visited annually by 365,000 people. The park is used for picnicking, bird watching, soccer games, camping, boating, hunting, fishing, hiking, biking, nature observation, and trail-walking. People also subsistence fish at the lake.²⁴ The Madison County Transit Schoolhouse Trail goes through USS-GCW facility grounds behind the coke plant.²⁵

Sadly, Madison County also is home to some of the worst air quality in the nation, and USS-GCW plays a major role in contributing to this poor air quality. The amount of air pollution emitted from USS-GCW is staggering: 1,102.81 tons per year of particulate matter (including 918.62 and 569.60 tons per year of PM₁₀ and PM_{2.5}, respectively); 16,410.52 tons per year of ozone precursors (CO, NO_x, and VOCs); and 1.33 tons per year of lead.²⁶ The American Lung Association has given Madison County grades of "F" for high ozone days and 24-hour particle pollution and a "Fail" designation for annual particle pollution.²⁷ In 2009, Madison County was sixteenth in the American Lung Association's nationwide rankings of areas at risk from long-term particle pollution (annual PM_{2.5}).²⁸

The poor air quality in Madison County is especially disturbing considering the large numbers of people with pre-existing medical conditions that put them at a higher risk for air pollution induced health effects. Out of a total county population of 267,347, it is estimated that 5,666 children suffer from pediatric asthma; 16,898 from adult asthma; 7,071 from chronic bronchitis; 3,586 from emphysema; 75,926 from cardiovascular disease; and 16,402 from diabetes. Furthermore, the county has 62,322 people under the age of 18 and 37,242 over the age of 65, two age groups that are at a higher risk of air pollution induced health effects.²⁹

The combination of poor air quality and large numbers of at-risk individuals create serious health problems for the environmental justice communities surrounding USS-GCW. USEPA's most recent National Air Toxics Assessment (NATA) estimated the increased cancer risk due to breathing air toxics from outdoor sources for each census tract in the country. The assessment concluded that Granite City

²¹ <http://www.madisoncusd12.org/>

²² National Center for Education Statistics, *Common Core of Data, 2006-2007*, available at <http://nces.ed.gov/ccd/>. Custom-built tables for Madison City schools (Exhibit 13) and Madison County schools (Exhibit 14).

²³ <http://www.nls.gov/offices/pih/pha/contacts/states/il.cfm>.

²⁴ <http://www.dnr.state.il.us/lands/Landmgt/PARKS/R4/HORSESP.HTM>.

²⁵ <http://www.mcttrails.org/viewer.htm>; http://www.trailnet.org/trail_main.php.

²⁶ Specifically, USS-GCW emits: 12,503.40 tons/yr of carbon monoxide; 3,676.49 tons/yr of nitrogen oxides; and 230.63 tons/yr of volatile organic compounds. United States Steel Corp. Granite City Works Annual Emissions Report, 2007 at 3 (IEPA, Mar. 28, 2008) ("2007 Annual Emissions Report") (Exhibit 15).

²⁷ American Lung Association, *State of the Air Report 2009*, Madison County, available at <http://www.stateoftheair.org/2009/states/illinois/madison-17119.html> (Exhibit 16).

²⁸ American Lung Association, *State of the Air Report 2009*, People at Risk in 25 Counties Most Polluted by Long-term Particle Pollution (Annual PM_{2.5}), available at http://www.stateoftheair.org/2009/sota-tables/People_at_Risk_in_25_Counties_Most_Polluted_Long-Term.pdf (last accessed October 1, 2009)

²⁹ American Lung Association, *State of the Air Report 2009*, Madison County (Exhibit 16).

had the census tract with the highest cancer risk in the nation, with a risk of 1,136 in one million.³⁰ This is more than 30 times higher than the national average risk of 36 in one million.³¹ According to NATA data, USS-GCW's coke oven emissions account for 95% of the pollutant contributions responsible for this increased cancer risk.³² In addition, Granite City had the census tract with the eighth highest cancer risk in the nation, with a risk of 537 in one million.³³ In this census tract, USS-GCW's coke oven emissions account for 91% of the pollutant contributions responsible for the increased cancer risk.³⁴

Because of the above described demographic and health information, there is a compelling need for full public disclosure, detailed statements of the legal and factual bases for all permit conditions, and careful, extensive monitoring of USS-GCW's air pollution emissions. As detailed below, IEPA has failed to do so and has issued USS-GCW a Title V permit that does not comply with many provisions of the CAA.

GROUND FOR OBJECTION

The Title V program plays a critical role in enabling an industrial facility, government regulators, and the public to identify all requirements applicable to a facility's air pollution emissions and to determine whether the facility is complying with those requirements. "One purpose of the title V program is to enable the source, EPA, states, and the public to better understand the applicable requirements to which the source is subject and whether the source is meeting them."³⁵

A Title V/CAAPP permit that fulfills this objective is particularly important in this case, as USS-GCW is a large, complex, high-polluting facility with impacts on immediate neighbors as well as a sizeable metropolitan community and a history of air pollution violations. However, the permit falls far short of fulfilling its legal requirements and policy purposes. The permit does not adequately inform regulators and the community of the nature of USS-GCW's emissions, does not identify and include all applicable requirements, and fails in numerous instances to require the facility to conduct monitoring sufficient to determine whether it is complying with its emission limitations.

ABC's objections to the permit, explained in the sections below, include the following:

- I. The Permit Fails to Include All Applicable Permits and Permit Requirements
- II. The Permit Fails to Provide Periodic Monitoring Sufficient to Assure Compliance
- III. The Permit Lacks Compliance Schedules to Remedy All Current Violations
- IV. The Permit Unlawfully Exempts Emissions During Startup, Shutdown, and Malfunctions
- V. The Permit Fails to Include Compliance Assurance Monitoring Requirements

³⁰ USEPA, *National-Scale Air Toxics Assessment for 2002*, "2002_NATA_US_Cancer_Risk_Tract_081409.mdb", available at <http://www.epa.gov/ttn/atw/nata2002/tables.html> (last accessed September 30, 2009).

³¹ USEPA, *2002 National-Scale Air Toxics Assessment for 2002 - Fact Sheet*, available at <http://www.epa.gov/nata2002/factsheet.html> (last accessed Sep. 29, 2009).

³² USEPA, *2002 National-Scale Air Toxics Assessment*, "tct_risk_il.kmz" available at <http://www.epa.gov/ttn/atw/nata2002/tables.html> (last accessed September 30, 2009) Screen shots of the Google Earth Risk Map for Census Tracts 400500 and 400300 ("Google Earth Risk Map") (Exhibit 17).

³³ "2002_NATA_US_Cancer_Risk_Tract_081409.mdb", available at <http://www.epa.gov/ttn/atw/nata2002/tables.html> (last accessed September 30, 2009).

³⁴ Google Earth Risk Map (Exhibit 17).

³⁵ *In the Matter of Pouch Terminal*, 2008 EPA CAA Title V Lexis *2; see also *Sierra Club v. Johnson*, 436 F.3d 1269, 1260 (11th Cir. 2006):

The intent of Title V is to consolidate into a single document (the operating permit) all of the clean air requirements applicable to a particular source of air pollution." *Sierra Club v. Ga. Power Co.*, 443 F.3d 1346, 1348-49 (11th Cir. 2006). In this way, clarity and transparency were added to the regulatory process to help citizens, regulators, and polluters themselves understand which clean air requirements apply to a particular source of air pollution.

VI. Numerous Permit Provisions Lack Practical Enforceability

In short, USEPA must grant the Petition and order IEPA to modify the permit as requested herein to ensure compliance with the Clean Air Act and to then issue a new project summary and draft permit for public review and comment.

I. The Permit Fails to Include All Applicable Permits and Permit Requirements

The purpose of the USS-GCW Title V permit is to incorporate all of the facility's extensive air pollution obligations into one comprehensive document. As explained by the courts, all CAA requirements relevant to the USS-GCW facility must be included in the permit:

The permit is crucial to the implementation of the Act: it contains, in a single, comprehensive set of documents, all CAA requirements relevant to the particular polluting source. In a sense, a permit is a source-specific bible for Clean Air Act compliance.³⁶

However, the permit fails to include requirements related to two major projects currently under construction at the facility: the cogeneration project and the coke plant/coke conveyance system project ("coke plant project"). The permits for these projects are relied upon to set air limitations in the final permit. Thus, the USS-GCW Title V permit must be revised to include all applicable requirements, and then renoticed for public comment. The following permits must be included and referenced:

- Permit No. 06070022 – Emission Reduction Credits permit issued January 18, 2007 (Attached hereto as Exhibit 18)
- Permit No. 06070023 – Cogeneration Project permit issued January 30, 2008 (Attached hereto as Exhibit 19)
- Permit No. 06070088 – Coke Conveyance System Permit issued March 13, 2008 (Attached hereto as Exhibit 20)
- Permit No. 06070020 – Coke Plant Permit issued March 13, 2008 to Gateway Energy & Coke Company, c/o SunCoke Company (Attached hereto as Exhibit 21)³⁷

A. Emissions Reductions Credits Are "Applicable Requirements"

Both Illinois and federal law require that CAAPP/Title V permits contain "all applicable requirements." 415 ILL. COMP. STAT. 5/39.5(7)(a); 42 USC § 7661c(a); 40 CFR § 70.6(a)(1). The statutes define "applicable requirements" as the requirements from all permits mandated by the federal CAA or the state's SIP. This includes major source new source review (NSR) and prevention of significant deterioration (PSD) permits as well as minor NSR permits. 415 ILL. COMP. STAT. 5/39.5(1); 40 CFR § 70.2.

³⁶ *Commonwealth of Virginia v. Browner*, 80 F.3d 869, 873 (4th Cir. 1996).

³⁷ The Title V permit refers to the coke plant under construction by Gateway, states that the coke plant is considered part of the USS-GCW single source, and further states that Gateway must apply for a separate CAAPP for the coke plant within 12 months after its construction is complete. Condition 5.1.7. If the coke plant were an independent and new facility, it could take advantage of Illinois' decision to allow new sources up to 12 months after they commence operation to apply for a CAAPP permit. 415 ILL. COMP. STAT. 5/39.5(5)(x). However, because Gateway chose to become part of the USS-GCW single source, and took full advantage of emission reductions at USS-GCW in order to avoid major NSR/PSD review of all pollutants except particulate matter, Gateway must also obtain a CAAPP permit as part of the USS-GCW Title V package.

USEPA has repeatedly made clear, and recently reiterated, that “all terms and conditions in SIP-approved permit[s] are applicable requirements that must be incorporated into Title V permits.”³⁸ The term “SIP-approved permits” means:

[P]ermits issued pursuant to major or minor new source review (NSR) or prevention of significant deterioration (PSD) permit programs approved into SIP's (or promulgated under 40 CFR § 52.21 in States implementing the federal PSD program via delegation from EPA), as well as federally enforceable State operating permits (FESOP's) issued pursuant to SIP-approved operating permit programs. For purposes of this discussion, the term “NSR” includes major nonattainment NSR, minor NSR and PSD.³⁹

Indeed, the USEPA Administrator previously admonished IEPA for failing to comply with the requirement to include all SIP-approved permits in the final Title V permit:

IEPA must review its records to determine whether these missing operating permit conditions are applicable requirements (within the meaning of 40 C.F.R. § 70.2) for the Waukegan facility. If they are, IEPA must include the terms and conditions of the operating permits in the title V permit, or explain in the statement of basis how it has streamlined them into other requirements in Waukegan's title V permit.⁴⁰

The coke plant project permits (numbers 06070088 and 06070020) for this facility were issued pursuant to the state's SIP-approved NSR program for major sources and EPA-delegated PSD program. USEPA had already delegated administration of the PSD program to IEPA.⁴¹ Because the coke plant project constitutes a major source of nonattainment pollution (PM_{2.5}) in the region, the coke plant project could not proceed without “offsets” of other PM_{2.5} emissions from the USS-GCW facility. 42 U.S.C. § 7503(a)(1); 35 IAC 203.302 – 203.303. Accordingly, the coke plant project permits also reference the emission reduction credit permit (number 06070022) because it provided some of the necessary offsets.⁴²

In addition, IEPA permitted the coke plant project on the basis that while emissions of PM and PM₁₀ were subject to PSD requirements and emissions of PM_{2.5} were subject to major source NSR requirements, other emissions were able to avoid PSD and major source NSR permitting by virtue of emission reductions set forth in USS-GCW's emission reduction credit (06070022) and cogeneration permits (06070023).⁴³ Because the provisions of the coke plant project permits that enable emissions to avoid major source PSD and NSR review are minor source permit requirements, they also must be included in the USS-GCW Title V permit.

Similarly, IEPA issued the cogeneration project permit as a minor NSR permit. Absent emission reductions specified in the cogeneration project permit (06070023) and the emission reduction credit

³⁸ Letter from Carol Rushin, Acting Regional Administrator, USEPA, Region 8, to Steven M. Pirner, Secretary, South Dakota Department of Environment & Natural Resources, Enclosure at p. 1 (Jan 22, 2009) (“2009 Rushin Letter”) (Exhibit 22) (referencing Letter from John Seitz, Director, EPA Office of Air Quality Planning & Standards, to Robert Hodanbosi and Charles Laggors of STAPPA/ALAPCO (May 20, 1999) (“1999 Seitz Letter”) (Exhibit 23)).

³⁹ 1999 Seitz Letter, at Enclosure A, p. 1 (Exhibit 23).

⁴⁰ *In the Matter of Midwest Generation, LCC, Waukegan Generating Station*, Petition No. V-2004-5, CAAPP No. 95090047, 2005 EPA CAA Title V LEXIS 14 (Sept. 22, 2005) at *13. The Project Summary for the draft permit (page 27) states that no source-wide streamlining was involved in this case (Exhibit 3).

⁴¹ See pages 1 and 4 of both permits (Exhibits 19 & 20).

⁴² See section 3.1.1 of permit 06070088 and section 3.1.3 of permit 06070020.

⁴³ See coke plant permit (06070020) and coke conveyance system permit (06070088) sections 2.3 and Attachments 2.

permit (06070022), the project would have been a major source NSR/PSD permit. As set forth in the cogeneration project permit, Condition 2.2.1.a:

The limits established by this permit are intended to ensure that the Cogeneration Boiler Project addressed in this construction permit does not constitute a major modification of the source pursuant to these rules (See also Condition 2.6 and Attachment 1).

Condition 2.6.a states: "This permit relies upon the emissions decreases established by the Emission Reduction Projects (Construction Permit 06070022)." And Conditions 2.6.a – 2.6.d set forth emission reductions and limits necessary to enable the cogeneration project to avoid major NSR status.

Thus, both the cogeneration and coke plant projects currently under construction at the USS-GCW facility rely on netting – i.e., emission reductions that USS-GCW committed to undertake in order to avoid major source NSR and PSD permit requirements. For a source to rely on netting to avoid permit requirements, the source must be legally bound to undertake the emission reductions before it may commence construction. According to the governing Illinois regulation for sources in nonattainment areas:

A decrease in actual emissions is creditable to the extent that ... [i]t is federally enforceable at and after the time that actual construction on the particular change begins.

35 IAC 203.208(c)(1). Federal PSD regulations also state that a decrease in emissions is only creditable if "it is enforceable at and after the time that actual construction begins." 40 CFR § 52.21(b)(3)(vi). Consequently, the current construction of the cogeneration and coke plant projects could not have lawfully commenced unless the emission reductions relied on for the netting analysis were federally enforceable in the Title V permit at the commencement of construction.

IEPA claims in its Responsiveness Summary that because the permit reflects only current operations and both the cogeneration and coke plant projects are under construction, they are exempt from the requirements of the CAAPP regulations. While these projects are indeed not yet operational, IEPA's rationale is unlawful. Both state and federal law expressly require state that Title V permits include "requirements and regulations which have future effective compliance dates." 415 ILL. COMP. STAT 5/39.5(1) (definition of "applicable Clean Air Act requirement"); 40 CFR § 70.2 (definition of "applicable requirement"). USEPA recently reiterated that the term "applicable requirement" specifically extends to construction permits for activities not yet in operation:

The definition of 'applicable requirement' in Part 70, as well as the explanation in the EPA's 1999 letter for including PSD permit conditions in Title V permits, *are not contingent on whether or not a PSD-permitted unit has already been constructed and is operating.*"⁴⁴

Therefore, as "applicable requirements" in various permits for the many operations that constitute the USS-GCW single source, all of USS-GCW's requirements must be incorporated into the Title V permit. This includes the emission reduction permit (06070022), the cogeneration project permit (06070023) and the coke conveyance system permit (06070088). Accordingly, the Title V permit must be revised, with appropriate public notice and opportunity to comment, to include the following emission reduction requirements set forth in the netting analyses for both the cogeneration and coke plant project permits:⁴⁵

⁴⁴ Rushin Letter, Enclosure at p. 2 (emphasis added) (Exhibit 22).

⁴⁵ See reductions referenced in: cogeneration project permit (06070023), Section 4.0, Attachment 1, Contemporaneous Decreases (referencing emission reduction projects set forth in the cogeneration permit and in the emission reduction credit permit (06070022); coke conveyance permit (06070088), Section 5.0, Attachment 2,

- Permanent shutdown of existing boilers 1-10 (permit 06070022)
- Construction and operation of coke oven gas desulfurization system (permit 06070022)
- Installation and operation of low NOx burners on hot strip slab furnaces 1-4 (permit 06070022)
- Permanent shutdown of number 6 galvanizing line (permit 06070023)
- Permanent shutdown of number 4 coke oven gas booster pump (permit 06070023)

II. The Permit Fails to Provide Periodic Monitoring Sufficient to Assure Compliance

Periodic monitoring acts as a cornerstone of the Title V permitting scheme. Without monitoring to determine a facility's actual emissions, an emissions limit is of little value. The purpose of periodic monitoring is to provide assurance that the facility is operating in compliance with applicable emission limitations. Information obtained through periodic monitoring regarding the facility's actual emissions is useful not only to the source, but also to regulators and the public:

[The emission source] can manage the information provided from [its] title V monitoring to identify and respond to unusual periods of process or control device operation, taking necessary corrective action in a timely manner before there is a compliance issue. Data from title V monitoring also are important to permitting authorities and citizens for the purpose of assessing [the] emissions units' compliance with the applicable requirements.⁴⁶

The Clean Air Act requires periodic monitoring sufficient to assure compliance with applicable emission limits in Title V/CAAPP permits.⁴⁷ As described by the D.C. Circuit in *Sierra Club v. EPA*, 536 F.3d 673 (D.C. Cir. 2008), permitting authorities must take three steps to satisfy the monitoring requirements in EPA's part 70 regulations:⁴⁸

1. Under 40 C.F.R. § 70.6(a)(3)(i)(A), where existing regulations or underlying permits prescribe monitoring that is appropriate to the timeframe of the emission limit and sufficient to assure compliance, the permitting authority must properly incorporate that monitoring requirement into the title V permit.
2. Under 40 C.F.R. § 70.6(a)(3)(i)(B), where there is no previously-established monitoring requirement to correspond to an emission limit, the permitting authority must add "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit."
3. Under 40 C.F.R. § 70.6(c)(1), where there exists a previously-established monitoring requirement corresponding to an emission limit, but that monitoring is not sufficient to assure compliance with limit, the permitting authority must supplement monitoring to assure such compliance.

Contemporaneous Decreases (referencing emission reduction projects set forth in the cogeneration project permit and in the emission reduction credit permit (06070022); and coke plant permit (06070020), Section 5.0, Attachment 2, Contemporaneous Decreases (referencing emission reduction projects set forth in the cogeneration permit and in the emission reduction credit permit (06070022)).

⁴⁶ USEPA, Office of Air Quality Planning Standards, *Title V Monitoring Technical Reference Document*, Chapter 2: Principles of Title V Monitoring, at 2-xi (April 2001 draft), available at <http://www.titlev.org/otherdoc-monit.htm> ("USEPA Title V Monitoring Technical Reference Document") (Exhibit 24).

⁴⁷ 42 U.S.C. § 7661c(c); see also 40 C.F.R. §§70.6(a)(3)(i)(A) & (B); 40 C.F.R. § 70.6(c)(1).

⁴⁸ See also *In the Matter of CITGO Refining and Chemicals Company L.P.*, Petition No. VI-2007-01, at 7 (May 28, 2009); *In the Matter of the Premcor Refining Group, Inc.*, Petition No. Vi-2007-02, at 7 (May 28, 2009) (listing the three steps permitting authorities must take to satisfy the monitoring requirements of Title V).

In the past, there was some confusion as to whether permitting authorities could, must, or could not supplement inadequate monitoring provisions to make them sufficient to ensure compliance. That confusion is now behind us. In the D.C. Circuit decision cited above, the court made clear that the Clean Air Act expressly *requires* augmentation where monitoring requirements exist but are not adequate to ensure compliance.

Title V requires that “[e]very one” of the permits issued by permitting authorities include adequate monitoring requirements. . . . Under the “[e]ach permit” mandate, state and local authorities must be allowed to cure these monitoring requirements before including them in permits. . . . *We read Title V to mean that somebody must fix these inadequate monitoring requirements.*”⁴⁹

The Illinois Environmental Protection Act both compels IEPA to meet the standards of the Clean Air Act and provides similar (although potentially less protective) language requiring supplemental monitoring where necessary to ensure compliance:

The Agency shall include among such conditions applicable monitoring . . . that the Agency deems necessary to assure compliance with the Clean Air Act, the regulations promulgated thereunder, this Act, and applicable Board regulations.⁵⁰

In all cases where the permitting authority includes periodic monitoring requirements in a Title V permit, the permitting authority must also include its rationale for the selected requirements in the permit record. Under 40 C.F.R. §70.7(a)(5), “[t]he permitting authority *shall* provide a statement that sets forth the legal and factual basis for the draft permit conditions (including references to the applicable statutory or regulatory provisions).”⁵¹ Further, the permitting authority must respond to all significant comments, including significant comments related to the adequacy of monitoring. EPA has held that “[i]t is general principle of administrative law that an inherent component of any meaningful notice and opportunity for comment is a response by the regulatory authority to significant comments.”⁵²

In August 2004, USEPA Region 5 evaluated IEPA’s Title V operating permit program and found that IEPA permits consistently failed to meet the periodic monitoring requirements of 40 C.F.R. Part 70.⁵³ A significant factor contributing to the inadequacy of IEPA’s periodic monitoring requirements was IEPA’s failure to establish monitoring provisions (instrumental and non-instrumental measurements) in its Title V permits.⁵⁴ Instead, IEPA relied on recordkeeping requirements designed to serve as monitoring. According to Region 5:

Within the context of Illinois permits reviewed by USEPA, the practice of using record keeping to serve as periodic monitoring has not always been sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit, as required by 40 C.F.R. § 70.6. USEPA has commented that, for mass emission limitations, control efficiency requirements, opacity limitations, or other similar limits, compliance cannot be directly demonstrated with a record. For this type of limit, for which there is potential for a violation, the permitting authority must include some periodic monitoring in the Title V permit.⁵⁵

⁴⁹ *Sierra Club v. EPA*, 536 F.3d at 678 (emphasis added).

⁵⁰ 415 ILL. COMP. STAT. 5/39.5(7)(b).

⁵¹ 40 C.F.R. § 70.7(a)(5) (emphasis added).

⁵² *In the Matter of Onyx Environmental Services*, Petition V-2005-1 (February 1, 2006).

⁵³ USEPA, Region 5, Review of Illinois’ Title V Operating Permit Program, 5 (Aug. 2004) (Exhibit 25).

⁵⁴ *Id.*

⁵⁵ *Id.* at 6.

Another significant finding of Region 5's evaluation of IEPA's permitting program was that IEPA's project summaries did not adequately discuss the decision making that went into the development of Title V permits. Specifically, Region 5 noted that IEPA's project summaries failed to include the rationale for periodic monitoring provisions, or lack thereof, established in the permit.⁵⁶

The inadequacies of IEPA's permitting program, highlighted by USEPA Region 5 in 2004, continue today. The USS-GCW permit contains numerous conditions that establish emissions limits but lack periodic monitoring requirements sufficient to assure compliance with those limits. In some instances, the permit violates 40 C.F.R. § 70.6(a)(3)(i)(B) by failing to include any periodic monitoring requirements. In other instances, the permit violates 40 C.F.R. § 70.6(c)(1) by relying on periodic monitoring requirements that are not sufficient to assure compliance with the applicable emissions limits. Both situations violate the Clean Air Act's directive that "[e]ach permit issued under [title V] shall set forth . . . monitoring . . . requirements to assure compliance with the permit terms and conditions."⁵⁷

As detailed below, the USS-GCW permit is yet another example of where IEPA's use of recordkeeping in lieu of testing and monitoring requirements violates the conditions set forth in 40 C.F.R. § 70.6. IEPA's reliance on recordkeeping in the USS-GCW permit is particularly troublesome due to USS-GCW's history of noncompliance with recordkeeping requirements in the recent past. In January 2009 and again in March 2009, USS-GCW received Violation Notices for violating various air statutes and regulations with failure to maintain records among the most frequent of the twenty-one cited violations.⁵⁸

The Project Summary for the USS-GCW draft permit also fails to meet the requirements set forth in 40 C.F.R. § 70.7(a)(5). IEPA's Project Summary states that the agency is required to generate a list of potential monitoring proposals and then choose the most appropriate monitoring method and frequency from that list by considering the relative merits of each possible option.⁵⁹ Notably, Attachment 4 to the USS-GCW Project Summary claims that each emissions unit-specific section in the Project Summary has a section identified as "Justification for Periodic Monitoring" that "will give the basis for the type of periodic monitoring described in the tables."⁶⁰ This is untrue. The Project Summary has no such sections. The tables containing the monitoring requirements have no justifications but, instead, only conclusory statements about the requirements. Region 5's February 2009 comments regarding IEPA's draft permit for USS-GCW noted this glaring lack of justification by IEPA:

The Project Summary does not provide any justification for why particular monitoring requirements are sufficient. Appendix 4 of the Project Summary does detail the process which IEPA will use to consider the appropriate monitoring but the Project Summary itself does not provide any of this detail.⁶¹

Moreover, in its February 27, 2009 comments to IEPA, ABC highlighted numerous instances where the draft permit contained inadequate monitoring requirements. In response, IEPA had the opportunity to correct the inadequate Project Summary and provide a clear, documented rationale for how the monitoring requirements were sufficient to assure compliance with the terms and conditions of the permit. However, IEPA failed to utilize this opportunity. Furthermore, IEPA has failed to respond to all

⁵⁶ *Id.* at 7-8.

⁵⁷ 42 U.S.C. § 7661c(c).

⁵⁸ Letter from Raymond E. Pilapil, Compliance Section Bureau of Air, IEPA, to Sharon K. Owen, USS-GCW (Jan. 29, 2009) (Exhibit 26); Letter from Raymond E. Pilapil, Compliance Section Bureau of Air, IEPA, to Richard Veitch, USS-GCW (Mar. 12, 2009) (Exhibit 27).

⁵⁹ Project Summary at 82 (Exhibit 3).

⁶⁰ *Id.* at 83.

⁶¹ E-mail from Genevieve Damico, USEPA-Region 5, to Michael Reed & Anatoly Belogorsky, IEPA (Feb. 1, 2009) (Exhibit 28).

significant comments regarding the adequacy of monitoring contained in the USS-GCW permit.

Accordingly, as detailed below, because the permit fails to provide periodic monitoring sufficient to assure compliance, IEPA must: (1) satisfy the monitoring requirements of 40 C.F.R. §§ 70.6(a)(3)(i)(A) & (B) and 70.6(c)(1); (2) provide a rationale for the monitoring requirements placed in the permit in accordance with 40 C.F.R. § 70.7(a)(5); and (3) respond to significant comments.

A. Coal Handling Operations

Condition 7.1.3(f) sets a PM₁₀ emission limit of 0.01 gr/scf during any one-hour period from process emission units, but the permit lacks periodic monitoring sufficient to assure compliance with the limit. The permit requires inspections of the control equipment and related recordkeeping, but does not require USS-GCW to undertake any actual monitoring of PM₁₀ emissions from the facility's coal handling operations. The lack of adequate monitoring is particularly concerning because a testing requirement for PM₁₀ emissions previously contained in the draft permit was removed before the issuance of the final permit. Because the emission limit must be met on an hourly basis, the permit must be revised to require additional periodic monitoring, such as a Continuous Emission Monitoring System (CEMS) for PM, to assure compliance with the limit.

B. Coke Production

1. Coke Oven Charging, Leaks from Doors, Leaks from Lids, and Leaks from Offtakes

Conditions 7.2.3-1(a) and (c), 7.2.3-2(a) and (b), 7.2.3-3(a) and (b), and 7.2.3-4(a) and (b) set various limits on visible emissions from coke oven charging and from leaks from coke oven doors, lids, and offtake systems. The visible emission limits are based on state regulations and a state-issued permit for Coke Oven Battery B. However, the permit lacks periodic monitoring sufficient to assure compliance with these limits. The permit only requires daily testing of visual emissions to assure compliance with visible emission limits based on federal MACT regulations, not limits based on state regulations or the state-issued permit. Although Condition 7.2.14 provides methods that could be used if USS-GCW elected to monitor for compliance with such limits, the permit does not actually require USS-GCW to do so. The permit must be revised to require daily monitoring to assure compliance with Conditions 7.2.3-1(a) and (c), 7.2.3-2(a) and (b), 7.2.3-3(a) and (b), and 7.2.3-4(a) and (b).

In addition, IEPA's rationale for the monitoring requirements associated with these conditions is unclear. The Responsiveness Summary states: "Daily testing of visual emissions are required by Condition 7.2.7-3(a) pursuant to 40 CFR Part 63, Subpart L."⁶² Because none of the conditions listed above are based on federal MACT regulations and the visible emission limits based on federal MACT regulations are not equivalent to the limits based on state regulations and the state-issued permit, it is unclear what IEPA is implying in this statement.

For example, Condition 7.2.3-3 contains three different visible emission limits for "Leaks from Lids." The first is based on a state regulation and applies to "coke oven lids." The second is based on the state-issued permit and applies to "charging ports or lids." The third is based on a federal MACT regulation and applies to "leaking topside port lids." IEPA does not explain why periodic monitoring is required for only one of the three visible emission limits or how compliance is assured for all three limits. Because IEPA has failed to provide the required statement that sets forth the legal and factual basis (including accurate references to the applicable statutory and regulatory provisions) for its decision, it must provide

⁶² Responsiveness Summary, at 27 cmt. 12 (Exhibit 7).

additional information to justify the monitoring requirements associated with Conditions 7.2.3-1(a) and (c), 7.2.3-2(a) and (b), 7.2.3-3(a) and (b), and 7.2.3-4(a) and (b). *See* 40 C.F.R. § 70.7(a)(5).

2. Combustion (Battery) Stack

a. *Condition 7.2.3-7(a)(i)*

Condition 7.2.3-7(a)(i) sets a PM emission limit of 110 mg/dscm (0.05 gr/dscf) for the coke oven combustion stacks, but the permit lacks periodic monitoring sufficient to assure compliance with the limit. The permit requires performance testing one year before the renewal date of the permit even though the PM limit must be met on a continuous basis. However, a one-time test does not constitute periodic monitoring, nor is it “sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.” USEPA Region 5’s comments on the draft permit also questioned how PM testing once every five years is sufficient to assure compliance with a continuous emission limit.⁶³

In its comments on the draft permit, Petitioner ABC requested a PM CEMS to assure compliance with the continuous limit. Rather than providing an explanation of the monitoring requirements, IEPA’s Responsiveness Summary simply identifies the testing requirements for the combustion stacks and argues that “CEMS are generally not required for periodic monitoring.”⁶⁴ This response does not indicate how the monitoring requirements are sufficient to assure compliance.

In fact, PM CEMS are available and feasible for use on coke oven batteries. IEPA recognizes that reality as the permit issued for the new coke plant currently under construction at the USS-GCW facility requires the use of a PM CEMS.⁶⁵ In addition, PM CEMS have become commonplace in multiple industrial applications including utilities, pulp mills, copper smelters, and refineries.⁶⁶ USEPA requires the use of PM CEMS in regulations as well -- 40 CFR §60.42 Subpart Da requires PM CEMS for utility boilers and 40 CFR §63.11149(b) requires PM CEMS for copper smelters. Accordingly, the permit must be revised to require additional periodic monitoring, such as a PM CEMS, to assure compliance with the limit.

b. *Condition 7.2.3-7(c)*

Condition 7.2.3-7(c) sets a non-sulfate PM emission limit of 0.03 gr/dscf for the battery stack serving Battery B, but the permit lacks periodic monitoring sufficient to assure compliance with the limit. The permit requires performance testing one year before the renewal date of the permit. However, a one-time test for a continuous emission limit does not constitute periodic monitoring, nor is it “sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.” As noted before, USEPA Region 5’s comments on the draft permit questioned how PM testing once every five years is sufficient to assure compliance.⁶⁷

In addition, the permit does not indicate how the results of the PM performance testing will be used to assure compliance with the non-sulfate PM emission limit. As discussed previously, PM CEMS are available and feasible for use on coke oven batteries. Because the PM limit must be met on a continuous

⁶³ E-mail from Genevieve Damico at cmt. 12 (Exhibit 28).

⁶⁴ Responsiveness Summary, at 26-27 cmts. 9 & 13 (Exhibit 7).

⁶⁵ *See* Permit 06070020, Sec. 4.1.8-1.b (Exhibit 21).

⁶⁶ Shaw Stone & Webster, *Particulate Monitoring in Wet Scrubbed Stacks: New Rules/New Opportunities*, at 31-39 (Oct. 26, 2006)(Exhibit 29).

⁶⁷ E-mail from Genevieve Damico, at cmt. 12 (Exhibit 28).

basis, the permit must require additional periodic monitoring, such as a PM CEMS, to assure compliance with the limit.

3. Bypass/Bleeder Stack Flare

Condition 7.2.3-8(b) sets a no visible emission limit for emissions from the bypass/bleeder stack flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. However, the permit lacks periodic monitoring sufficient to assure compliance with the limit. While Condition 7.2.3-8(b) references the federal MACT regulation that specifies methods for monitoring visible emissions from flares, the permit does not expressly require USS-GCW to actually monitor the flares' emissions to assure compliance with the limit. USEPA's Draft Title V Monitoring Technical Reference Document states: "For flares, a typical reasonable monitoring method is to verify on a daily or more frequent basis that the flare is operating without smoking . . . Often, facilities employ the use of a video camera to continuously monitor VE from flares."⁶⁸ The permit must be revised to require additional periodic monitoring, such as continuous video monitoring, to assure compliance with the limit.

In addition, IEPA's rationale for the monitoring requirements associated with Condition 7.2.3-8(b) is inadequate. The Responsiveness Summary states: "40 CFR 63.309(h) does not specify the frequency of no visible emissions observations."⁶⁹ Simply stating that the regulation does not specify a monitoring frequency is not an appropriate response. Where no periodic monitoring requirements are established in the pre-existing applicable requirements, 40 C.F.R. § 70.6(a)(3)(i)(B) requires IEPA to add "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit." Thus, IEPA is required to add periodic monitoring requirements to the permit or provide additional information to justify the monitoring requirements associated with this condition.

C. Coke Oven Gas By-Products Recovery Plant

Condition 7.3.10(a)(i) sets a no visible emission limit for the coke oven by-products flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. However, the permit lacks periodic monitoring sufficient to assure compliance with the limit. Although the permit requires annual opacity readings for the flare, this frequency is inadequate to assure compliance with a limit that must be met continuously. Annual monitoring is not "sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit" when the permit contains a continuous emission limitation. As discussed previously, daily or more frequent monitoring, including the use of video cameras, is reasonable to assure compliance with visible emission limits for flares. The permit must be revised to require additional periodic monitoring, such as continuous video monitoring of flares, to assure compliance with the limit.

In addition, IEPA's rationale for the monitoring requirements associated with Condition 7.3.10(a)(i) is unclear. The Responsiveness Summary states: "Flaring events are not frequent due to the use of this material as a fuel."⁷⁰ However, the 2007 Annual Emissions Report for the USS-GCW facility indicates otherwise, listing typical operation of the coke oven by-products flare as continuous at 8,760 hours per year.⁷¹ To assure that the monitoring requirements are sufficient, the frequency and duration of flaring events must be clearly explained. IEPA must provide additional information to justify the monitoring requirements associated with this condition.

⁶⁸ USEPA Title V Monitoring Technical Reference Document at 16-lviii (Exhibit 24).

⁶⁹ Responsiveness Summary, at 27 cmt. 14 (Exhibit 7).

⁷⁰ *Id.* at 28 cmt. 17.

⁷¹ 2007 Annual Emissions Report at 129 (Exhibit 15).

D. Blast Furnaces

1. Control Equipment

Condition 7.4.3-1(a)(ii)(A) sets a PM emission limit of 0.023 g/dscm (0.010 gr/dscf) for emissions from control equipment used to collect any of the emissions from the tap hole, trough, iron or slag runners, or iron or slag spouts. However, the permit lacks periodic monitoring sufficient to assure compliance with the limit. The permit requires performance tests once during the term of the permit for emission units equipped with a baghouse. A one-time test does not constitute periodic monitoring, nor is it “sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.” Again, USEPA Region 5’s comments questioned how a test every five years could be sufficient to assure compliance. The permit must be revised to require at least annual performance testing to assure compliance with the PM emission limit.

Furthermore, IEPA’s rationale for the monitoring requirements associated with Condition 7.4.3-1(a)(ii)(A) is inadequate. The Responsiveness Summary quotes the federal MACT regulations and then states: “The IEPA believes that the monitoring and testing procedures outlined in Subsection 7.4 of the final CAAPP and the MACT standard are sufficient enough to demonstrate continuous compliance with the applicable emission standards.”⁷² This statement references all requirements for all operations related to the blast furnaces and is far too general. IEPA has not explained how the monitoring requirements are sufficient to assure compliance with the specific PM emission limit in Condition 7.4.3-1(a)(ii)(A). It is not enough for IEPA to simply state that it believes monitoring and testing are sufficient. Rather, IEPA must provide additional information to justify the monitoring requirements associated with this condition.

2. Opacity

Condition 7.4.3-1(d)(ii) sets an opacity limit of 20 percent (6 minute average) for any secondary emissions that exit any opening in the casthouse or structure housing the blast furnace. Condition 7.4.7-2(b)(i)(C)(1) requires weekly opacity observations for uncaptured emissions from the blast furnace casthouse. However, the Responsiveness Summary provides additional confusion regarding the monitoring requirements of the permit: “Condition 7.4.7-2(a)(ii) identifies frequency of opacity observations (once during each term of the Title V permit) as established by 40 CFR 63.7821(c). The IEPA believes that the MACT are sufficient enough to demonstrate continuous compliance with the applicable emission standards.”⁷³ It is unclear whether both opacity observation requirements apply to the opacity limit in Condition 7.4.3-1(d)(ii). IEPA must provide additional information to clarify and justify the monitoring requirements associated with this condition. Daily observations using EPA Method 9 are supported by USEPA Region 7 guidance on opacity monitoring for Title V permits.⁷⁴ The permit must be revised to require at least daily opacity observations to assure compliance with the limit.

3. Blast Furnace Excess Gas Flare

Condition 7.4.5-4(e) sets a no visible emission limit for the blast furnace excess gas flare, but the permit lacks periodic monitoring sufficient to assure compliance with the limit. The permit requires annual observations of the flare and monthly inspections of the flare’s ignition system. However, this frequency

⁷² Responsiveness Summary, at 29 cmt. 20 (Exhibit 7).

⁷³ *Id.* at 33 cmt. 35.

⁷⁴ “Method 9 is the preferred visual observation method. To the extent practicable, a source should attempt to record daily opacity measurements on each emissions point subject to an opacity standard.” USEPA, Region 7, *Guidance on Periodic Monitoring for Opacity* (April 18, 1997) (Exhibit 30).

is inadequate to assure compliance with a continuous limit and is not “sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.” As discussed above, daily or more frequent monitoring, including the use of video cameras, is reasonable to assure compliance with visible emission limits for flares. The permit must be revised to require additional periodic monitoring, such as continuous video monitoring of flares, to assure compliance with the limit.

4. Production and Emission Limits

Conditions 7.4.6(b)-(g) set limits for emissions from the blast furnaces and related operations. These emission limits were established in USS-GCW’s PSD permit 95010001 pursuant to 40 CFR § 52.21. According to USEPA Region 9’s Periodic Monitoring Guidelines, monitoring in PSD permits is not presumptively adequate to assure compliance with emission limits.⁷⁵ Compliance with the emission limits in Conditions 7.4.6(b)-(g) is supposedly demonstrated through the use of iron production records and emission factors identified in the permit. The Title V permit indicates that the emission factors were established in permit 95010001. However, neither permit identifies the source of these emission factors. Furthermore, neither IEPA’s Project Summary nor the Responsiveness Summary provides evidence that the emission factors are representative of emissions at the USS-GCW facility. The use of emission factors from unspecified sources cannot be assumed to assure compliance with emission limits.

Without site-specific data, the use of emission factors is likely insufficient to assure compliance: “Because emission factors essentially represent an average of a range of emission rates, approximately half of the subject sources will have emission rates greater than the emission factor and the other half will have emission rates less than the factor.”⁷⁶ Significant inter-facility variation may result in emissions that differ by an order of magnitude or more.⁷⁷ In addition, it is unclear whether the permit relies on AP-42 emission factors. However, EPA has clearly indicated its lack of support for the use of AP-42 emission factors in this context: “Use of these factors as source-specific permit limits and/or as emission regulation compliance determinations is not recommended by EPA.”⁷⁸ The use of AP-42 emission factors or other general emission factors based on data from other sources may under-represent emissions at the USS-GCW facility, particularly during conditions likely to produce maximum emissions.

Even with site-specific data, the use of emission factors may be insufficient to assure compliance. In a previous Title V petition decision, the USEPA Administrator determined “that annual reporting of NO_x emissions using an equation that uses current production information, along with emission factors based on prior source tests, was insufficient to assure compliance with an emission unit’s annual NO_x standard.”⁷⁹ Similarly, in another decision, the Administrator determined that the state permitting agency “failed to demonstrate that a one-time calculation is representative of ongoing compliance with the applicable requirement, especially considering the unpredictable nature of the emissions and the unreliability of the data used in the calculations.”⁸⁰ IEPA must provide additional information on the source of the emission factors and clearly explain how the use of emission factors is sufficient to assure compliance with the emission limits in these conditions.

⁷⁵ USEPA, Region 9, *Guidelines: Periodic Monitoring* (Sept. 09, 1999) (Exhibit 31).

⁷⁶ USEPA, *AP 42: Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Fifth Edition, Volume 1, Introduction at 2, available at <http://www.epa.gov/ttn/chief/ap42/c00s00.pdf> .

⁷⁷ *Id.* at 3.

⁷⁸ *Id.* at 2

⁷⁹ *In the Matter of Tesoro Refining and Marketing Co.*, Petition No. IX-2004-6, 33 (Dec. 19 2003) (Exhibit 32) citing *In the Matter of Fort James Camas Mill*, Petition No. X-1999-1, 17 (Dec. 22, 2000).

⁸⁰ *Id.*

In addition, IEPA often refers to prior source testing to argue that a large margin of compliance supports less stringent monitoring requirements. This issue has also been addressed in a previous Title V petition decision: “Even when presented with CEMs data which showed that actual NO_x emissions for each of five years were consistently well below the standard, EPA found that a large margin of compliance alone was insufficient to demonstrate that the NO_x emissions would not change over the life of the permit.”⁸¹ After concluding that a margin of compliance alone was insufficient, the Administrator made the following determination:

Absent additional information supporting [the state permitting agency's] decision that no further testing or monitoring is required, monitoring for this condition should include, at a minimum, either periodic source testing to determine the emission factor or the identification and monitoring of parametric ranges in addition to current production information which, if maintained, would provide a reasonable assurance of compliance with the NO_x standard during the anticipated range of operations.⁸²

The prior source testing referenced by IEPA does not provide a sufficient basis to determine that emissions will not change over the life of the permit. IEPA must provide additional information to justify the monitoring requirements associated with these conditions.

a. Casthouse Baghouse (Furnace Tapping) Captured Emissions

i. Condition 7.4.6(b) – PM₁₀ Emission Limit

Condition 7.4.6(b) sets a PM₁₀ emission limit of 111.19 tpy for casthouse baghouse (furnace tapping) emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. The Responsiveness Summary also provides confusion regarding the monitoring requirements for this limit. IEPA seems to imply that, in addition to the use of emission factors, testing requirements based on federal MACT regulations will be used to assure compliance with the PM₁₀ emission limit in Condition 7.4.6(b).⁸³ However, the testing requirements based on federal MACT regulations do not apply to this permit condition. IEPA must provide additional information to justify the monitoring requirements associated with this condition. If IEPA cannot provide sufficient justification, the permit must be revised to require additional periodic monitoring, such as an annual stack test, to assure compliance with the PM₁₀ limit.

ii. Condition 7.4.6(b) – SO₂ Emission Limit

Condition 7.4.6(b) sets an SO₂ emission limit of 422.00 tpy for casthouse baghouse (furnace tapping) emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. The Responsiveness Summary also generates confusion regarding the monitoring requirements of the permit: “SO₂ limits of Condition 7.4.6(b) shall be verified by testing requirements of Condition 7.4.7-2(d)(ii) of the final CAAPP.”⁸⁴ However, this testing requirement applies to the iron spout baghouse, not the casthouse baghouse. It is unclear whether IEPA meant for the permit to contain SO₂ testing requirements for the casthouse baghouse. IEPA must provide additional information to justify the monitoring requirements associated with this condition. If IEPA cannot provide sufficient justification, the permit must be revised to require additional periodic monitoring, such as an annual stack test, to assure compliance with the SO₂ limit.

⁸¹ *Id.*

⁸² *In the Matter of Fort James Camas Mill*, Petition No. X-1999-1, 17 (Dec. 22, 2000) (Exhibit 33).

⁸³ Responsiveness Summary, at 32 cmt. 29 (Exhibit 7).

⁸⁴ *Id.* at 29 cmt 21.

iii. Condition 7.4.6(b) – NO_x Emission Limit

Condition 7.4.6(b) sets a NO_x emission limit of 22.79 tpy for casthouse baghouse (furnace tapping) emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. Furthermore, both the Project Summary and the Responsiveness Summary fail to include information necessary to justify the monitoring requirements of the permit. IEPA states: “The initial testing data indicates the actual level of NO_x emissions from casthouse baghouse is almost three times lower than the allowable levels established in this condition. Therefore, application of CEMS is unnecessary. The IEPA believes that the monitoring and testing procedures outlined in Subsection 7.4 of the final CAAPP and the MACT standard are sufficient enough to demonstrate continuous compliance with the applicable emission standards.”⁸⁵ This response is problematic for two reasons.

First, no further information is provided on the “initial testing data” referenced in the Responsiveness Summary, making it difficult to determine whether testing is representative of NO_x emissions from the casthouse baghouse. A one-time test cannot be assumed to reflect the variability in emissions throughout the range of operating conditions of the blast furnaces or the potential for emissions to change over time. Without knowing whether the initial testing was performed under conditions representative of maximum emissions, the margin of compliance implied by IEPA’s response cannot be verified. In addition, as discussed above, the USEPA Administrator has determined that a margin of compliance alone is not a sufficient basis to determine that emissions will not change over the life of the permit.

Second, IEPA’s rationale for the monitoring requirements associated with the NO_x emission limit in Condition 7.4.6(b) is far too general. The Responsiveness Summary makes generic reference to “the monitoring and testing procedures outlined in Subsection 7.4.”⁸⁶ This statement references all requirements for all operations related to the blast furnaces. IEPA has not explained how the monitoring requirements are sufficient to assure compliance with the specific NO_x emission limit in Condition 7.4.6(b). IEPA must provide additional information to justify the monitoring requirements associated with this condition. If IEPA cannot provide sufficient justification, the permit must be revised to require additional periodic monitoring, such as an annual stack test, to assure compliance with the NO_x limit.

iv. Condition 7.4.6(b) – VOM Emission Limit

Condition 7.4.6(b) sets a VOM emission limit of 149.68 tpy for casthouse baghouse (furnace tapping) emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. Furthermore, both the Project Summary and the Responsiveness Summary fail to include information necessary to justify the monitoring requirements of the permit. IEPA states: “The initial testing data indicates the actual level of VOM emissions from casthouse baghouse is eight times lower than the allowable levels established in this condition. Because of such large margin of compliance, the IEPA does not support suggestions of VOM annual tests.”⁸⁷ No further information is provided on the “initial testing data” referenced, making it difficult to determine whether testing is representative of VOM emissions under maximum operating conditions of the blast furnaces. Again, USEPA has determined that a margin of compliance alone is not a sufficient basis to determine that emissions will not change over the life of the permit. IEPA must provide additional information to justify the monitoring requirements associated with this condition. If

⁸⁵ *Id.* at 30 cmt. 22.

⁸⁶ *Id.*

⁸⁷ *Id.* at 30 cmt. 23.

IEPA cannot provide sufficient justification, the permit must be revised to require additional periodic monitoring, such as an annual stack test, to assure compliance with the VOM limit.

b. Blast Furnace Uncaptured Fugitive Emissions

i. Condition 7.4.6(c) – SO₂ Emission Limit

Condition 7.4.6(c) sets an SO₂ emission limit of 21.94 tpy for blast furnace uncaptured fugitive emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. The Responsiveness Summary also generates confusion regarding the monitoring requirements of the permit. IEPA states, “condition 7.4.7-2(b)(i) of the final CAAPP establishes weekly visual observations of fugitive emissions released from the casthouse and supported by appropriate recordkeeping.”⁸⁸ This statement implies that weekly opacity observations will in some way help to assure compliance with an annual, pollutant specific emission limit. The use of opacity observations to assure compliance with this condition is inappropriate. IEPA must provide additional information to justify the monitoring requirements associated with this condition.

ii. Condition 7.4.6(c) – NO_x Emission Limit

Condition 7.4.6(c) sets a NO_x emission limit of 1.14 tpy for blast furnace uncaptured fugitive emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. The Responsiveness Summary also is confusing. IEPA states, “condition 7.4.7-2(b)(i) of the final CAAPP establishes weekly visual observations of fugitive emissions released from the casthouse and supported by appropriate recordkeeping.”⁸⁹ As noted above, this statement implies that weekly opacity observations will in some way help to assure compliance with an annual, pollutant-specific emission limit and is therefore inappropriate. IEPA must provide additional information to justify the monitoring requirements associated with this condition.

iii. Condition 7.4.6(c) – VOM Emission Limit

Condition 7.4.6(c) sets a VOM emission limit of 7.42 tpy for blast furnace uncaptured fugitive emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. The Responsiveness Summary also provides confusion regarding the monitoring requirements of the permit. IEPA states, “condition 7.4.7-2(b)(i) of the final CAAPP establishes weekly visual observations of fugitive emissions released from the casthouse and supported by appropriate recordkeeping.”⁹⁰ Once again, this statement implies that weekly opacity observations will in some way help to assure compliance with an annual, pollutant-specific emission limit and is inappropriate. IEPA must provide additional information to justify the monitoring requirements associated with this condition.

c. Blast Furnace Charging Emissions

Condition 7.4.6(d) sets a PM₁₀ emission limit of 5.17 tpy for blast furnace charging emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. IEPA must provide additional information to justify the monitoring requirements associated with this condition.

⁸⁸ *Id.* at 30 cmt. 24.

⁸⁹ *Id.* at 30 cmt. 25.

⁹⁰ *Id.* at 31 cmt. 26.

d. Slag Pits Emissions

i. Condition 7.4.6(e) – PM₁₀ Emission Limit

Condition 7.4.6(e) sets a PM₁₀ emission limit of 6.60 tpy for slag pits emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. IEPA must provide additional information to justify the monitoring requirements associated with this condition.

ii. Condition 7.4.6(e) – SO₂ Emission Limit

Condition 7.4.6(e) sets an SO₂ emission limit of 15.83 tpy for slag pits emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. The Responsiveness Summary also provides confusion regarding the monitoring requirements of the permit. IEPA states, “condition 7.4.7-2(b)(i) of the final CAAPP establishes weekly visual observations of fugitive emissions released from the casthouse and supported by appropriate recordkeeping.”⁹¹ The requirement cited by IEPA refers to emissions from the casthouse, not emissions from the slag pits. Even if IEPA meant for a similar requirement to apply to slag pits emissions, the use of weekly opacity observations to help assure compliance with an annual, pollutant-specific emission limit is inappropriate. IEPA must provide additional information to justify the monitoring requirements associated with this condition.

e. Iron Spout Baghouse Captured Emissions

i. Condition 7.4.6(f) – PM₁₀ Emission Limit

Condition 7.4.6(f) sets a PM₁₀ emission limit of 40.32 tpy for iron spout baghouse emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. The Responsiveness Summary also provides confusion regarding the monitoring requirements of the permit. IEPA’s response refers to the test frequencies of the casthouse baghouse and iron spout baghouse.⁹² IEPA seems to imply that, in addition to the use of emission factors, testing requirements based on federal MACT regulations will be used to assure compliance with the PM₁₀ emission limit in Condition 7.4.6(f). However, testing requirements based on federal MACT regulations do not apply to permit conditions based on state-issued permits. In addition, it is unclear whether PM performance testing of the iron spout baghouse specified in Condition 7.4.7-2(d) will be used to demonstrate compliance with the limit. IEPA must provide additional information to justify the monitoring requirements associated with this condition. If IEPA cannot provide sufficient justification, the permit must be revised to require additional periodic monitoring, such as an annual stack test, to assure compliance with the PM₁₀ limit.

ii. Condition 7.4.6(f) – SO₂ Emission Limit

Condition 7.4.6(f) sets an SO₂ emission limit of 13.89 tpy for iron spout baghouse emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. Furthermore, it is unclear whether SO₂ performance testing of the iron spout baghouse specified in Condition 7.4.7-2(d) will be used to demonstrate compliance with the limit in addition to the use of an emission factor. IEPA must provide additional information to justify the monitoring requirements associated with this condition. If IEPA cannot provide sufficient

⁹¹ *Id.* at 31 cmt. 27.

⁹² *Id.* at 32 cmt. 29.

justification, the permit must be revised to require additional periodic monitoring, such as an annual stack test, to assure compliance with the SO₂ limit.

f. Iron Pellet Screen Emissions

Condition 7.4.6(g) sets a PM₁₀ emission limit of 6.01 tpy for iron pellet screen emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. IEPA must provide additional information to justify the monitoring requirements associated with this condition.

E. Basic Oxygen Furnaces

1. Opacity

a. Condition 7.5.3-1(c)(iv)

Condition 7.5.3-1(c)(iv) sets an opacity limit of 20 percent (3 minute average) for any secondary emissions that exit any opening in the BOPF shop or any other building housing the BOPF or BOPF shop operation. Condition 7.5.7-2(d) requires weekly opacity observations for uncaptured roof monitor emissions unless a previous observation measures opacity of 20 percent or more. If a previous observation measures opacity of 20 percent or more, daily monitoring is required until five consecutive observations are less than 20 percent. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit. The Responsiveness Summary states, "Condition 7.5.7-2(d) of the final CAAPP identifies frequency (weekly and daily) of roof monitor opacity visual observations."⁹³ This statement does not explain how the frequency of opacity observations is sufficient to assure compliance with the limit. The monitoring frequency is not "sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit." As noted above, daily observations using EPA Method 9 are supported by USEPA Region 7 guidance on opacity monitoring for Title V permits. The permit must be revised to require at least daily opacity observations to assure compliance with the limit.

b. Condition 7.5.3-1(f)

Condition 7.5.3-1(f) set an opacity limit of 20 percent that applies to emissions from material handling operations (flux dump and conveyor transfer points), but the permit lacks periodic monitoring sufficient to assure compliance with the limit. The Responsiveness Summary creates additional confusion regarding the monitoring requirements for this limit. IEPA states: "MACT presented in Subpart FFFFF does not require visual observation frequencies other than those established in the permit. Condition 7.5.7-1(c)(1) of the final CAAPP identifies frequency (weekly) of opacity readings from BOF shop openings. This is sufficient to yield compliance with Condition 7.5.3-1(f)."⁹⁴ Because the limit applies to emissions from material handling operations, it is unclear whether Condition 7.5.7-1(c)(1) applies. IEPA must provide additional information to justify the monitoring requirements associated with this condition. In any case, weekly opacity observations are not "sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit." The permit must be revised to require at least daily opacity observations to assure compliance with the limit.

2. Production and Emission Limits

⁹³ *Id.* at 37 cmt 46.

⁹⁴ *Id.* at 37 cmt. 47.

Conditions 7.5.6(c)-(i) set limits for emissions from the basic oxygen furnaces and related operations. The Title V permit indicates that these emission limits were established in PSD permit 95010001 pursuant to 40 CFR § 52.21. As discussed above, according to EPA Region 9's Periodic Monitoring Guidelines, monitoring in PSD permits is not presumptively adequate to assure compliance with emission limits. Compliance with the emission limits in Conditions 7.5.6(c)-(i) is supposedly demonstrated through the use of steel production records and emission factors identified in the permit. The Title V permit indicates that the emission factors were established in PSD permit 95010001. However, neither permit identifies the source of these emission factors. As discussed above, the use of emission factors from unspecified sources cannot be assumed to assure compliance with emission limits. To ensure that the emissions factors in Conditions 7.5.6(c)-(i) are representative of emissions at the USS-GCW facility, IEPA must provide additional information regarding the source and testing conditions of the data used to calculate the emission factors.

In addition, IEPA's reference to prior source testing as a means of justifying less stringent monitoring requirements is inadequate. As discussed above, the USEPA Administrator has determined that a margin of compliance alone does not provide a sufficient basis to determine that emissions will not change over the life of the permit. IEPA must provide additional information to justify the monitoring requirements associated with these conditions.

a. BOF ESP Stack Emissions

i. Condition 7.5.6(c) – NO_x Emission Limit

Condition 7.5.6(c) sets a NO_x emission limit of 69.63 tpy for the BOF ESP stack. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit. Both the Project Summary and the Responsiveness Summary fail to include information necessary to justify the use of the NO_x emission factor to assure compliance with the limit. According to IEPA, the emission factor is based on the testing of NO_x emissions performed by the source.⁹⁵ However, IEPA does not provide information on the testing data used to develop the emission factors, other than the fact that testing occurred.

Emissions from basic oxygen furnaces can fluctuate significantly depending on the time of testing. For example, testing data indicates that NO_x emissions are substantially lower during periods of oxygen blow than during periods of non-oxygen blow.⁹⁶ Given this information, a NO_x emission factor based on testing during periods of oxygen blow would be inappropriate for use to assure compliance with a NO_x emission limit. A single stack test cannot be assumed to reflect the variability in emissions throughout the range of operating conditions of the blast furnaces or the potential for emissions to change over time. IEPA must provide additional information to justify the monitoring requirements associated with this condition. If IEPA cannot provide sufficient justification, the permit must be revised to require additional periodic monitoring, such as an annual stack test, to assure compliance with the NO_x limit.

ii. Condition 7.5.6(c) – VOM Emission Limit

Condition 7.5.6(c) sets a VOM emission limit of 10.74 tpy for the BOF ESP stack. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit. Both the Project Summary and the Responsiveness Summary fail to include information necessary to justify the use of the VOM emission factor to assure compliance with the limit. According to IEPA, the emission factor is

⁹⁵ *Id.* at 33 cmt. 36.

⁹⁶ USEPA, *Alternative Control Techniques - NO_x Emissions from Iron and Steel Mills*, p. 15 (EPA-453/R-94-065), available at http://www.epa.gov/ttn/catc/dir1/iron_act.pdf.

based on the testing of VOM emissions performed by the source.⁹⁷ However, IEPA does not provide information on the testing data used to develop the emission factors, other than the fact that testing occurred. A single stack test cannot be assumed to reflect the variability in emissions throughout the range of operating conditions of the blast furnaces or the potential for emissions to change over time. IEPA must provide additional information to justify the monitoring requirements associated with this condition. If IEPA cannot provide sufficient justification, the permit must be revised to require additional periodic monitoring, such as an annual stack test, to assure compliance with the VOM limit.

iii. Condition 7.5.6(c) – CO Emission Limit

Condition 7.5.6(c) sets a CO emission limit of 16,097.47 tpy for the BOF ESP stack. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit. Both the Project Summary and the Responsiveness Summary fail to include information necessary to justify the use of the CO emission factor to assure compliance with the limit. According to IEPA, the emission factor is based on the testing of CO emissions performed by the source.⁹⁸ However, IEPA does not provide information on the testing data used to develop the emission factors, other than the fact that testing occurred.

In addition, IEPA explains that stack test results conducted in 2006 demonstrate that CO emissions are lower than established in the permit.⁹⁹ As discussed above, the USEPA Administrator has determined that a margin of compliance alone is not a sufficient basis to determine that emissions will not change over the life of the permit. IEPA must provide additional information to justify the monitoring requirements associated with this condition. If IEPA cannot provide sufficient justification, the permit must be revised to require additional periodic monitoring, such as an annual stack test, to assure compliance with the CO limit.

iv. Condition 7.5.6(c) – Lead Emission Limit

Condition 7.5.6(c) sets a lead emission limit of 1.26 tpy for the BOF ESP stack. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. In addition, inconsistencies between the lead emission factor and the corresponding lead emission limit highlight concerns with the emission factor. Condition 7.5.6(c) identifies a lead emission factor of 0.1934 lbs/hr for BOF ESP stack emissions. When the 0.1934 lb/hr emission factor is applied to a period of 8,760 hours (continuous operation of the BOF for one year), maximum annual lead emissions are calculated to be 0.85 tpy. It is unclear, then, why Condition 7.5.6(c) sets a lead emission limit substantially above 0.85 tpy.

Furthermore, annual lead emissions from the USS-GCW facility warrant, at a minimum, annual stack testing of lead emissions from the BOF ESP stack. The 2007 Annual Emissions Report for USS-GCW reports annual facility lead emissions of 1.33 tpy.¹⁰⁰ Approximately 95% of annual facility lead emissions are released from the BOF ESP stack.¹⁰¹ Use of an emission factor from an unspecified source to estimate this significant level of lead emissions is not “sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.”

⁹⁷ Responsiveness Summary at 34 cmt. 37 (Exhibit 7).

⁹⁸ *Id.* at 34 cmt. 38.

⁹⁹ *Id.*

¹⁰⁰ 2007 Annual Emissions Report at 3 (Exhibit 15).

¹⁰¹ *Id.* at 18. Annual lead emissions from the BOF ESP stack are calculated to be 1.26 tpy (0.28680 lb/hr * 8,760 hr/yr).

IEPA also references initial testing data indicating that the actual level of lead emissions from ESP stack is below the allowable levels established in this condition.¹⁰² Again, USEPA has determined that a margin of compliance alone is not a sufficient basis to determine that emissions will not change over the life of the permit. IEPA must provide additional information to justify the monitoring requirements associated with this condition. If IEPA cannot provide sufficient justification, the permit must be revised to require additional periodic monitoring, such as an annual stack test, to assure compliance with the lead limit.

b. BOF Roof Monitor Emissions

Condition 7.5.6(d) set a lead emission limit of 0.08 tpy for BOF roof monitor emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. The Responsiveness Summary states that the limit is “based on conservative estimates where as the actual emissions still maintain a generous margin of compliance.”¹⁰³ However, IEPA has provided no further information to explain the source of these conservative estimates and how they are sufficient to assure compliance with the limit. IEPA must provide additional information to justify the monitoring requirements associated with this condition.

c. Desulfurization and Reladling (Hot Metal Transfer) Emissions

i. Condition 7.5.6(e) – VOM Emission Limit

Condition 7.5.6(e) sets a VOM emission limit of 1.58 tpy for desulfurization and reladling (hot metal transfer) emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit. Both the Project Summary and the Responsiveness Summary fail to include information necessary to justify the use of the VOM emission factor to assure compliance with the limit. According to IEPA, the emission limit is based on engineering estimates presented by the source.¹⁰⁴ However, IEPA does not explain what engineering estimates were used to develop the emission limit and how those estimates are representative of desulfurization and reladling emissions at the USS-GCW facility. IEPA must provide additional information to justify the monitoring requirements associated with this condition. If IEPA cannot provide sufficient justification, the permit must be revised to require additional periodic monitoring, such as an annual stack test, to assure compliance with the VOM limit.

ii. Condition 7.5.6(e) – Lead Emission Limit

Condition 7.5.6(e) sets a lead emission limit of 0.09 tpy for desulfurization and reladling (hot metal transfer) emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. The Responsiveness Summary states that the limit is “based on conservative estimates where as the actual emissions still maintain a generous margin of compliance.”¹⁰⁵ However, IEPA has provided no further information to explain the source of these conservative estimates and how they are sufficient to assure compliance with the limit. IEPA must provide additional information to justify the monitoring requirements associated with this condition. If IEPA cannot provide sufficient justification, the permit must be revised to require additional periodic monitoring, such as an annual stack test, to assure compliance with the lead limit.

d. BOF Additive System Emissions

¹⁰² Responsiveness Summary, at 35 cmt. 40 (Exhibit 7).

¹⁰³ *Id.*

¹⁰⁴ *Id.* at 34 cmt. 39.

¹⁰⁵ *Id.* at 35 cmt. 40.

Condition 7.5.6(f) sets a PM₁₀ emission limit of 0.57 tpy for BOF additive system emissions. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. IEPA must provide additional information to justify the monitoring requirements associated with this condition. If IEPA cannot provide sufficient justification, the permit must be revised to require additional periodic monitoring, such as an annual stack test, to assure compliance with the PM₁₀ limit.

e. Flux Conveyor, Transfer Pits, and Binfloor Emissions

Condition 7.5.6(g) sets a PM₁₀ emission limit of 2.86 tpy for “flux and transfer pits, bin floor emissions.” IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. IEPA must provide additional information to justify the monitoring requirements associated with this condition. If IEPA cannot provide sufficient justification, the permit must be revised to require additional periodic monitoring, such as an annual stack test, to assure compliance with the PM₁₀ limit.

f. Emissions from the Argon Stirring Station and Material Handling Tripper

Condition 7.5.6(i) sets a PM₁₀ emission limit of 12.80 tpy for emissions from the argon stirring station and material handling tripper (ladle metallurgy). IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. IEPA must provide additional information to justify the monitoring requirements associated with this condition. If IEPA cannot provide sufficient justification, the permit must be revised to require additional periodic monitoring, such as an annual stack test, to assure compliance with the PM₁₀ limit.

F. Continuous Casting

1. Opacity

Condition 7.6.3-1(b)(ii) sets a 5 percent opacity limit for “continuous caster spray chambers or continuous casting operations.” Condition 7.6.8(c)(i) requires weekly opacity observations for uncaptured roof monitor emissions unless a previous observation measures opacity of 5 percent or more. If a previous observation measures opacity of 5 percent or more, daily monitoring is required until five consecutive observations are less than 5 percent. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit. The monitoring frequency is not “sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.” As stated previously, daily observations using EPA Method 9 are supported by USEPA Region 7 guidance on opacity monitoring for Title V permits. The permit must be revised to require at least daily opacity observations to assure compliance with the limit.

2. Production and Emission Limits

Conditions 7.6.7(a)-(e) set emission limits for emissions from continuous casting and related operations. The Title V permit indicates that these emission limits were established in USS-GCW’s PSD permit 95010001. According to USEPA Region 9’s Periodic Monitoring Guidelines, monitoring in PSD permits is not presumptively adequate to assure compliance with emission limits. Compliance with the limits is supposedly demonstrated through the use of steel production records and emission factors identified in the permit. The Title V permit indicates that the emission factors were established in PSD permit 95010001. However, neither permit identifies the source of these emission factors. Furthermore, neither the Project Summary nor the Responsiveness Summary provides evidence that the emission

factors are representative of emissions at the USS-GCW facility. As discussed above, the use of emission factors from unspecified sources cannot be assumed to assure compliance with emission limits. To ensure that the emissions factors are representative of emissions at the USS-GCW facility, IEPA must provide additional information regarding the source of the data used to calculate the emission factors. In addition, IEPA must clearly explain how the use of emission factors is sufficient to assure compliance with the emission limits in Conditions 7.6.7(a)-(e).

a. Condition 7.6.7(b) – NO_x Emission Limit

Condition 7.6.7(b) sets a NO_x emission limit of 89.50 tpy for emissions from caster molds. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit as it relies on an emission factor from an unspecified source. IEPA must provide additional information to justify the monitoring requirements associated with this condition.

b. Conditions 7.6.7(a)-(e) – PM₁₀ Emission Limits

Conditions 7.6.7(a)-(e) set PM₁₀ emission limits for continuous casting emissions:

1. Condition 7.6.7(a) - 6.35 tpy for emissions from the deslagging station and the material handling station.
2. Condition 7.6.7(b) - 10.74 tpy for emissions from caster molds.
3. Condition 7.6.7(c) - 15.25 tpy for emissions from casters spray chambers.
4. Condition 7.6.7(d) - 12.71 tpy for emissions from slab cut-off.
5. Condition 7.6.7(e) - 12.92 tpy for emissions from slab ripping.

IEPA has not provided a clear rationale for the monitoring requirements associated with these limits as it relies on emission factors from unspecified sources. IEPA must provide additional information to justify the monitoring requirements associated with these conditions.

G. Hot Strip Mill

1. Slab Reheat Furnaces

Condition 7.7.3-1 sets a PM₁₀ emission limit of 38.7 ng/J (0.09 lbs/mmBtu) of heat input from the slab reheat furnaces. The permit requires testing once in five years at the time of renewal of the permit. However, a one-time test does not constitute periodic monitoring, nor is it “sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.” USEPA Region 5’s comments on the draft permit noted this repeated failure of IEPA to justify compliance monitoring once every five years. Because the PM limit must be met on a continuous basis, the permit must be revised to require additional periodic monitoring, such as the use of a PM CEMS, to assure compliance with the limit.

2. Production and Emission Limits

Condition 7.7.7(b) provides that “[t]he coke oven gas (COG) heat input fraction from firing COG in conjunction with natural gas (NG) shall not exceed 0.863 based on a maximum actual heat input per hour to the 4 slab heating furnaces and a calculated COG particulate emission rate of 0.044 pounds of particulate per million BTU per hour.” It is unclear how USS-GCW will show compliance with this condition. Condition 7.7.10(b) requires a monthly log to be kept of the type of fuel used. However, since

these records will be used to determine compliance with the maximum hourly heat input limit in Condition 7.7.7(b), the permit must contain an hourly fuel usage recordkeeping requirement.¹⁰⁶

H. Finishing Operations

Condition 7.8.5(a) provides that “no owner or operator of an existing affected continuous or batch pickling line at a steel pickling facility shall cause or allow to be discharged into the atmosphere from the affected pickling line: i. Any gases that contain HCl in a concentration in excess of 18 parts per million by volume (ppmv); or ii. HCl at a mass emission rate that corresponds to a collection efficiency of less than 97 percent.” Condition 7.8.8(a)(iii) of the permit requires HCl performance testing “either annually or according to an alternative schedule that is approved by the applicable permitting authority, but no less frequently than every 2 ½ years or twice per Title V permit term.” It is unclear why the permit allows for an alternative testing schedule. Furthermore, if an alternative testing schedule were approved, it is unclear how the public would know what testing frequency was required, since the frequency would not be specified in the permit. The permit must be revised to require HCl performance testing on at least an annual basis.

I. Boilers

1. PM₁₀ Emission Limit

Condition 7.10.3(b)(ii) sets a PM₁₀ emission limit of 2.15 ng/J (0.005 lb/mmBtu) of heat input from the steel works boilers. The permit requires performance testing once in five years at the time of renewal of the permit. However, a one-time test does not constitute periodic monitoring, nor is it “sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.” Again, USEPA Region 5’s comments also questioned how a test every five years could be sufficient to assure compliance. Because the PM limit must be met on a continuous basis, the permit must be revised to require additional periodic monitoring, such as the use of a PM CEMS, to assure compliance with the limit.

2. CO Emission Limit

Condition 7.10.3(e) sets a CO emission limit of 200 ppm for the affected boilers, but the permit lacks periodic monitoring sufficient to assure compliance with the limit. IEPA has not provided a clear rationale for the monitoring requirements associated with this limit. The Responsiveness Summary states, “See case-by-case determination permit that requires a CO CEMS and some testing as well. In addition, 10 boilers will be permanently shutdown upon startup of the cogeneration plant.”¹⁰⁷ Neither this response nor the Project Summary explains how the monitoring requirements of the permit are sufficient to assure compliance. IEPA must provide additional information to justify the monitoring requirements associated with these conditions.

J. Internal Combustion Engines

¹⁰⁶ In a December 1997 letter to Florida Department of Environmental Protection, USEPA Region 4 objected to the issuance of a Proposed Part 70 Operating Permit for Florida Power & Light’s Manatee Plant. Letter from USEPA to Florida Department of Environmental Protection (Dec. 11, 1997), *available at* <http://www.epa.gov/region07/programs/artd/air/title5/t5memos/fp&l1997.pdf> (Exhibit 34). In Enclosure 1 of that letter, USEPA stated that one of its reasons for objecting to the permit was that the permit did not include an hourly fuel usage recordkeeping requirement to ensure compliance with an hourly heat input limit. An analogous situation exists with Condition 7.7.7(b) of the USS-GCW permit.

¹⁰⁷ Responsiveness Summary at 40 cmt. 58 (Exhibit 7).

Condition 7.11.7(b) sets PM, CO, NO_x, and SO₂ emission limits for the emergency generator. Compliance with these limits is demonstrated through the use of emergency generator operation records and emission factors identified in the permit. The Title V permit indicates that the emission factors for Condition 7.11.7(b) were established in permit 00060003. However, neither permit identifies the source of these emission factors. Furthermore, neither the Project Summary nor the Responsiveness Summary provides evidence that the emission factors are representative of emergency generator emissions at the USS-GCW facility. As discussed above, use of emission factors from unknown sources cannot be assumed to assure compliance with emission limits. IEPA must provide additional information to justify the monitoring requirements associated with these conditions. If the emission factors are not based on site-specific data, stack testing must be performed to establish emission factors representative of emergency generator emissions at the USS-GCW facility.

K. Gasoline Storage and Dispensing

Condition 7.12.3(b)(ii) sets a discharge limit of 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit pursuant to 35 IAC 219.301. The Responsiveness Summary states: "Compliance with 35 219.301 is achieved by using TANKS program and monthly gasoline throughput, considering that station in service for 24 hours/day. Recordkeeping requirements of Condition 7.12.9 and compliance procedures of Condition 7.12.12 are sufficient to meet monitoring requirements pursuant to 39.5(7)(d) of the Act."¹⁰⁸ This response fails to explain how monthly gasoline throughput information is sufficient to assure compliance with an hourly discharge limit. Monthly gasoline throughput records do not appear to constitute "reliable data from the relevant time period that are representative of the source's compliance with the permit." IEPA must provide additional information to justify the monitoring requirements associated with this condition.

III. The Permit Lacks Compliance Schedules to Remedy All Current Violations

Where a facility is not in compliance with applicable requirements at the time of Title V permit issuance, federal and state law require that the final permit include a compliance schedule with a "schedule of remedial measures" and "an enforceable sequence of actions with milestones leading to compliance."¹⁰⁹ Illinois law also states:

All CAAPP permits shall contain emission limitations and standards and . . . *schedules for achieving compliance at the earliest reasonable date*, which are or will be required to accomplish the purposes and provisions of this Act and to assure compliance with all applicable requirements.¹¹⁰

USEPA's Enforcement & Compliance History Online (ECHO) indicates that USS-GCW is a "High Priority Violator" with at least 12 consecutive quarters of unaddressed violations of the SIP and NESHAP.¹¹¹ However, the Title V permit fails to include the required compliance schedules for some longstanding violations and fails to address several new violations also requiring compliance schedules.

A. The Permit Forgoes a Required Enforceable Compliance Schedule In Favor of an Unacceptable "Under Review" Compliance Provision

¹⁰⁸ *Id.* at 41 cmt. 64.

¹⁰⁹ 42 U.S.C. §§ 7661b(b)(1) & 7661c(a); 40 C.F.R. §§ 70.5(c)(8)(iii)(C) & 70.6(c)(3).

¹¹⁰ 415 ILL. COMP. STAT. 5/39.5(7)(a) (emphasis added).

¹¹¹ <http://www.epa-echo.gov/cgi-bin/get1cReport.cgi?tool=echo&IDNumber=1711900153> (summarizing noncompliance at USS-GCW) (last visited Sept. 27, 2009).

Beginning in 2005, IEPA filed a series of three complaints against USS-GCW alleging twenty-four air pollution violations at this facility. In December 2007, the court approved a Consent Order settling the litigation.¹¹² The Consent Order highlighted the inadequacy of USS-GCW's monitoring regime and required USS-GCW to submit a detailed compliance schedule regarding basic oxygen furnace operations by March 31, 2008, and to implement this schedule by June 30, 2008.¹¹³

The permit explains in Condition 7.5.14 that USS-GCW still is not in compliance with all applicable requirements:

The Permittee was sent Violation Notice A-2007-00009 by the Illinois EPA for violations related to the affected BOF shop. The violation notice alleged exceedances of the 20% opacity limit on uncaptured emissions from openings in the building housing the BOF shop. The violations were referred to the Office of the Illinois Attorney General by the Illinois EPA. The violations were resolved via consent order 05—CH-750, which was entered on December 18, 2007 in the Circuit Court for the Third Judicial Circuit, Madison County, Illinois. By March 31, 2008, US Steel was required to submit a compliance schedule that would demonstrate compliance with the above referenced violations. That schedule was submitted on time by US Steel, however, the schedule was not approvable as required under Section 39.5(10)(a)(ii).

Instead of requiring an approvable schedule prior to issuance of the final permit, IEPA issued the permit without this legally required element. Condition 7.5.14.a of the final permit simply required USS-GCW to submit another proposed compliance schedule by August 30, 2009. IEPA's Responsiveness Summary indicates that USS-GCW submitted another proposed compliance schedule by this date. However, the final permit indicates that this proposed compliance schedule is not approved and enforceable but remains under review by IEPA and the Illinois Attorney General Office. Therefore, the final permit lacks the required enforceable compliance schedule.

The promise of a future enforceable compliance schedule does not satisfy the requirements of Title V. The final permit's lack of a compliance schedule has prevented the public participation required by the CAA:

A copy of each permit application, compliance plan (*including the schedule of compliance*) . . . shall be available to the public.¹¹⁴

Illinois law echoes the federal requirement:

The Agency shall issue a CAAPP permit, permit modification, or permit renewal if all of the following conditions are met...The applicant has submitted with its complete application *an approvable compliance plan, including a schedule for achieving compliance*, consistent with subsection 5 of this Section and applicable regulations."¹¹⁵

The Agency shall *make available to the public* all documents submitted by the applicant to the Agency, including each CAAPP application, *compliance plan (including the schedule of compliance)*, and emissions or compliance monitoring report, with the

¹¹² Consent Order 05-CH-750, *Illinois ex rel. Lisa Madigan v. U.S. Steel Corporation, Inc.* Dec. 18, 2007, Circuit Court, Third Judicial Circuit, Madison County, Illinois (Exhibit 9).

¹¹³ *Id.* at paragraphs D.3.d. and e.

¹¹⁴ 42 U.S.C. § 7661b(e).

¹¹⁵ 415 ILL. COMP. STAT. 5/39.5, Section 10(a)(ii) (2005) (emphasis added).

exception of information entitled to confidential treatment pursuant to Section 7 of this Act.¹¹⁶

By issuing the final permit without making an approved compliance schedule available for review, IEPA deprived the public of an opportunity to comment on a critical aspect of the permit. IEPA must issue a revised final permit containing a schedule of remedial measures and an enforceable sequence of actions with milestones leading to compliance for public review and comment.

B. New Materials Indicate Twenty-One Additional Instances of Current Noncompliance

1. January 2009 Notice of Violation

Since IEPA issued the draft permit and Project Summary, IEPA has cited USS-GCW for additional air violations. On January 29, 2009, IEPA issued Violation Notice A-2008-00223 to USS-GCW.¹¹⁷ The notice alleged 16 violations of state air requirements during 2008, including: failure to observe work rules for coke oven batteries; failure to conduct and adequately record quarterly physical integrity visual inspections; failure to conduct monthly inspections; failure to initiate and adequately record repairs after inspections revealed damage; failure to collect reladling emissions; failure to wet slag to control fugitive particulate matter emissions, and failure to follow the operating program for fugitive particulate matter. The permit fails to address these violations and does not contain a compliance schedule with a “schedule of remedial measures” and “an enforceable sequence of actions with milestones leading to compliance.”

2. March 2009 Notice of Violation

On March 12, 2009, IEPA issued Violation Notice A-2009-00034 to USS-GCW.¹¹⁸ The notice alleged 5 more violations of state air requirements, including: visible emissions from Battery B of nearly three times the allowable limit; impermissible visual emissions from the pressure relief device and improper operation of the steam blanketing system on #2 tar dehydration tank; failure to provide information for each piece of equipment in the October 31, 2008, amendment to the first semi-annual 2008 report; failure to submit information associated with the by-product plant equipment retagging project; and failure to maintain records for methods of repairs for leaks found during semiannual emissions monitoring on four different dates. Again, the permit fails to address these violations and does not contain a compliance schedule with a “schedule of remedial measures” and “an enforceable sequence of actions with milestones leading to compliance.”

Given USS-GCW's repeated failures to comply with currently applicable emission limits, work practices, and inspection and reporting requirements, it is vital that USEPA require IEPA to develop approved, enforceable schedules of remedial measures with milestones leading to compliance and to issue a new draft permit for public review and comment.

IV. The Permit Unlawfully Exempts Emissions During Startup, Shutdown, and Malfunctions

A. Exemptions from MACT Standards During Periods of Startup, Shutdown, and Malfunction Based on EPA's General Duty Standard Are Invalid

Numerous provisions in the permit unlawfully exempt USS-GCW from otherwise-applicable MACT standards during periods of startup, shutdown, and/or malfunction (SSM).

¹¹⁶ 415 ILL. COMP. STAT. 5/39.5, Section 5(q) (emphasis added).

¹¹⁷ Violation Notice A-2008-00223 (IEPA, Jan. 29, 2009) (Exhibit 26).

¹¹⁸ Violation Notice A-2009-00034 (IEPA, Mar. 12, 2009) (Exhibit 27).

In December 2008, the D.C. Circuit vacated 40 C.F.R. §§ 63.6(f)(1) and (h)(1), which exempted SSM emissions from MACT limits. *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008). The vacated regulations required sources to comply with a “general duty” standard, that is, to simply minimize emissions to the greatest extent possible during periods of SSM. In reaching its decision, the D.C. Circuit made two significant findings. First, section 112(d) of the Clean Air Act requires emissions standards to apply on a continuous basis. Second, the general duty standard is not an emission standard. Based on these findings, the court held that the general duty exemption did not satisfy the requirement that hazardous air pollutant emissions be limited by MACT standards on a continuous basis:

Because the general duty is the only standard that applies during SSM events – and accordingly no section 112 standard governs these events – the SSM exemption violates the CAA’s requirement that some section 112 standard apply continuously.¹¹⁹

IEPA contends in its Responsiveness Summary that the decision in *Sierra Club v. EPA* has virtually no affect on the MACT source category rules providing for SSM exemptions in the USS-GCW CAAPP permit.¹²⁰ IEPA bases its conclusion on a July 22, 2009 USEPA letter addressing industry concerns regarding the impact of the *Sierra Club* decision.¹²¹ IEPA claims that because the MACT standards directly applicable to USS-GCW are not covered by the mandate in the case, the agency may exempt the facility from section 112 standards during SSM.

However, while the USEPA letter notes that the vacatur will “immediately and directly affect” only a specific subset of section 112(d) rules, it goes on to state that USEPA intends to review the other source category-specific SSM provisions in light of the decision. Moreover, the letter twice states that “EPA recognizes that the legality of such source category-specific provisions may now be called into question.” This statement appears first in the body of the letter and again as a disclaimer attached to Table 2. USEPA therefore recognizes that although the D.C. Circuit reviewed only 40 C.F.R. §§ 63.6(f)(1) and (h)(1) when it struck down the general duty standard, the effect of the court’s holding is not limited to those two provisions. Thus, the USEPA letter is consistent with the *Sierra Club* decision, which indicates that all SSM exemptions contained within section 112 source category rules are contrary to the plain language of the Clean Air Act.

Accordingly, the following provisions of the permit that exempt USS-GCW’s emissions from MACT standards during SSM events are unlawful and IEPA must revise the permit to strike such exemptions:

- Conditions 7.2.3.d.ii and 7.2.3.e.ii - incorporate by reference 40 C.F.R. Part 63, Subpart A, with respect to the coke oven operations and coke oven battery operations. 40 C.F.R. Part 63, Subpart A contains the exact provisions invalidated by the D.C. Circuit - 40 C.F.R. §§ 63.6(f)(1) and (h)(1);
- Condition 7.2.5-3.a.i - exempts USS-GCW from complying with the MACT emission limits in 40 C.F.R. Part 63 Subpart CCCCC;
- Condition 7.2.5-3.b.vi - exempts USS-GCW from complying with the MACT emission limits in 40 C.F.R. Part 63 Subpart L;
- Conditions 7.11.6.a.i and 7.11.6.b¹²² - exempt USS-GCW from complying with the MACT emission limits in 40 C.F.R. Part 63 Subpart ZZZZ;

¹¹⁹ *Id.* at 1028.

¹²⁰ Responsive Summary, at 42-43 cmt. 69 (Exhibit 7).

¹²¹ Letter from Adam M. Kushner, Dir. Office of Civil Enforcement, USEPA, to Charles H. Knauss et al. (July 22, 2009) (Exhibit 35).

¹²² This exemption provision was added by IEPA for the first time in the June 2009 Proposed CAAPP Permit.

- Conditions 7.4.3.d and 7.5.3 - Although the SSM exemption provision incorporated by reference in the Integrated Iron and Steel Manufacturing Facilities MACT is not expressly quoted or cited in the permit, these conditions state that the facility's blast furnace process and basic oxygen furnaces are subject to 40 C.F.R. Part 63 Subpart FFFFF, "Integrated Iron and Steel Manufacturing Facilities." Conditions 63.7810(a) and 63.7835(b) in Subpart FFFFF exempt USS-GCW from complying with the MACT emission limits;
- Conditions 7.8.3.f - Although the SSM exemption provision incorporated by reference in the Steel Pickling – HCl Process Facilities MACT is not expressly quoted or cited in the permit, this condition states that the facility's HCl pickling line is subject to 40 C.F.R. Part 63 Subpart CCC, "Steel Pickling – HCl Process Facilities and Hydrochloric Acid Regeneration Plants." Subpart CCC incorporates by reference 40 C.F.R. § 63.6(f)(1), which was invalidated by the D.C. Circuit. Moreover, this provision contains no other regulatory text exempting or excusing sources from compliance during SSM events. See 40 C.F.R. § 63.1155(c) and Table 1 to Subpart CCC of Part 63.¹²³

B. Exemptions During Periods of Startup, Shutdown, and Malfunction Based on State Law Also Are Invalid

The following permit conditions rely on 35 IAC 201.149, 35 IAC 201.161,¹²⁴ and 35 IAC 201.262 to exempt USS-GCW from otherwise-applicable ambient air quality standards during periods of SSM:

- Condition 7.2.5-4 - coke oven batteries shutdown and malfunction;
- Condition 7.3.5 - by-product recovery plant shutdown and malfunction;
- Condition 7.4.5-2.b.i - blast furnace process shutdown and malfunction;
- Condition 7.4.5-2.c - blast furnace process startup;
- Condition 7.5.5-2.b - basic oxygen furnace shutdown and malfunction;
- Condition 7.6.5.a - continuous casting operations shutdown and malfunction;
- Condition 7.7.5 - slab reheat furnaces startup;
- Condition 7.10.3.g - boilers startup; and
- Condition 7.10.3.h.i - boilers shutdown and malfunction.

In 1978, USEPA adopted an excess emissions policy which considers all periods of excess emissions, including periods of SSM, to be violations of the Clean Air Act.¹²⁵ Furthermore, EPA has stated that automatic exemptions from emissions limits are not allowed.¹²⁶ The rationale behind EPA's policy of identifying all excess emissions as Clean Air Act violations and its disallowance of automatic exemptions is that emissions above the allowable limit may cause or contribute to exceedances of NAAQS.

¹²³ USEPA has recognized that the D.C. Circuit's vacatur of 40 C.F.R. §§ 63.6(f)(1) and (h)(1) immediately and directly affects 40 C.F.R. Part 63 Subpart CCC. See Letter from Adam M. Kushner, at Table 1 (Exhibit 35).

¹²⁴ We question whether the reference to 35 IAC 201.161 was intended to be 35 IAC 201.261.

¹²⁵ Memorandum from Kathleen M. Bennett, Assistant Adm'r for Air, Noise, and Radiation, USEPA, to Reg'l Adm'rs, Regions I-X, USEPA, at 1 (Sept. 28, 1982) (1982 Bennett Memorandum) (Exhibit 36). Since then, USEPA has consistently reaffirmed this position. See Memorandum from Eric Shaeffer, Dir., Office of Regulatory Enforcement and John S. Seitz, Dir., Office of Air Quality Planning and Standards, USEPA, to Reg'l Adm'rs, Regions I-X, USEPA (Dec. 5, 2001); Memorandum from Steven A. Herman, Assistant Adm'r for Enforcement and Compliance Assurance, USEPA, to Reg'l Adm'rs, Regions IX, USEPA (Sept. 20, 1999).

¹²⁶ 1982 Bennett Memorandum (Exhibit 36).

As Region 5 noted in its February 2009 comments on the draft permit, IEPA's Project Summary never mentioned the permit's extensive SSM exemptions or explained why such exemptions are appropriate.¹²⁷ The Region's comment noted that IEPA must discuss why it is appropriate to allow these exemptions. In its response to Region 5's comment, IEPA stated:

Currently, NAAQS for lead and PM_{2.5} emissions are the only standards that could be potentially impacted by SSM. However, SSM impact of each individual emission unit or group of emission units is very different and its actual value could be established only after certain modeling procedures.¹²⁸

Thus, IEPA admits that the SSM exemptions could interfere with maintenance of ambient air quality standards for lead and PM_{2.5} and decided to proceed with the SSM exemptions without first evaluating their impacts.

Beyond the illegality of allowing these broad exemptions from permit requirements during SSM, IEPA's response to comments falls far short of adequately explaining why the specific SSM exemptions contained in the permit are legally or factually justified. IEPA "shall provide a statement that sets forth the legal and factual basis for the draft permit conditions (including references to the applicable statutory or regulatory provisions." 40 C.F.R. § 70.7(a)(5). As noted in Region 5's comments, IEPA has failed to provide the required clear rationale for the exemptions in the permit record.¹²⁹

Therefore, IEPA must either issue a revised permit and project summary adequately explaining why the SSM exemptions under state law are appropriate and provide for further public review and comment or issue a revised permit striking such exemptions.

V. The Permit Fails to Include Compliance Assurance Monitoring Requirements

Federal regulations require certain Title V facilities to develop a compliance assurance monitoring (CAM) plan, as set forth in 40 CFR Part 64, and to submit the plan to IEPA for review and approval. This regulation applies to any facility that files a CAAPP application after April 20, 1998. 40 CFR § 64.5. IEPA's Project Summary claims that the CAM rules do not apply to USS-GCW "due to the fact that initial CAAPP application was submitted prior to April 1998." However, this ignores the CAAPP permitting requirements and the permit application history in this case.

National Steel Corporation submitted a CAAPP application for Granite City Works in March 1996, which was deemed complete by IEPA in May 1996. However, IEPA never issued a permit pursuant to that application. The Illinois CAAPP statute makes clear that IEPA's failure to act on the 1996 completed permit application within 18 months constituted final agency action on that application:

The Agency shall issue or deny the CAAPP permit within 18 months after the date of receipt of the complete CAAPP application Where the Agency does not take final action on the permit within the required time period the permit shall not be deemed issued; rather the failure to act shall be treated as a final permit action.

¹²⁷ E-mail from Genevieve Damico, USEPA, to Michael Reed & Anatoly Belogorsky, IEPA (Feb. 4, 2009) (Exhibit 28).

¹²⁸ Responsiveness Summary at 53 cmt. 1(Exhibit 7).

¹²⁹ *In the Matter of CITGO Refining and Chemicals Company L.P. West Plant, Corpus Christi, Texas*, at 11, Petition No. VI-2007-01 (May 28, 2009) (stating that the permitting authority's rationale for exempting a source from CAA requirements "must be clear and documented in the permit record").

415 ILCS 5/39.5-5(j). Because IEPA did not act on the 1996 application within the required 18 months of its submission, it cannot be considered the application for the draft U.S. Steel Permit that IEPA issued for public review and comment over 12 years later, in 2008.

It is also significant that National Steel Corporation, which owned the Granite City Works, went bankrupt in 2002 and was bought by U.S. Steel in 2003. On May 29, 2007, U.S. Steel submitted a different CAAPP permit application to IEPA, which U.S. Steel designated the "Initial Application" on the cover sheet provided by IEPA. This 2007 application, filed more than nine years after the trigger date for CAM inclusion, initiated the permitting process that led IEPA to publish a draft in October 2008 and its final permit in September 2009.

In addition, the 1996 and 2007 applications are substantially different. A significant amount of new material was added in the 2007 application. For example, U.S. Steel's 2007 application includes a number of plans designed to ensure MACT compliance, including site-specific monitoring plans, startup, shutdown and malfunction plans, and operation and maintenance plans for the entire iron and steel manufacturing facilities. That recent application also first contained a site-specific soaking work practice plan for the coke ovens, encompassing the pushing, quenching, and battery stacks operations. To place the difference in perspective, 68 pages of the 128-page 2007 application contained MACT compliance plans. Not one of these plans was included in the initial 1996 National Steel application.

The eleven years between the two application submissions also must be highlighted. If IEPA had issued a CAAPP permit in response to the 1996 application in the timely manner required by law (i.e., within the required 18 months), Granite City Works would have submitted its (at least) first renewal application since then, as CAAPP permits are only valid "for fixed terms of 5 years" 415 ILCS 5/39.5-3(b). Given the 1996 application date, the earliest a renewal permit would have been issued is 2001, three years after the date the CAM rules were triggered. Thus, had IEPA acted on the 1996 application in a timely manner, the permit for the facility would now undoubtedly be required to include CAM rules.

IEPA's effort to gift USS-GCW with an additional 5-year pass on the CAM rules contrasts startlingly with the public's interest and the purpose of the permitting process. The facility is the primary cause of air pollution in an area that is nonattainment for ozone and PM_{2.5}. The CAM rules are designed to more effectively monitor this pollution and ultimately lead to its abatement. IEPA's purposeful failure to include CAM rules in this permit is disconcerting considering the quantity and severity of pollutants emitted from this facility.

Furthermore, although ABC raised these concerns about the CAM omissions in its comments to IEPA, the agency has not provided an adequate response. In its Responsiveness Summary, IEPA simply stated that the 1996 application "with number of later updates" was "the only one considered" for this permit.¹³⁰ However, IEPA did not address or even acknowledge its failure to act within 18 months of the filing of the 1996 application or the 12 years between the filing of that initial application and the release of the 2008 draft permit. The Responsiveness Summary also made no mention of the extensive additional materials included in the 2007 application, even though all these issues were raised in the comments filed by ABC in February 2009.

Seeking to minimize the effect of its error on the public, IEPA claims in its Responsiveness Summary that "most of the sources that would be subject to CAM are already covered by a MACT standard and therefore CAM would not be applicable as well."¹³¹ This is untrue. According to the permit, of the emissions units that would be subject to CAM, only two (the blast furnace (Condition 7.4.4.c) and basic oxygen furnace (Condition 7.5.4.c)) may be exempt from CAM requirements because they have MACT

¹³⁰ Responsiveness Summary, at 43 cmt. 70 (Exhibit 7).

¹³¹ *Id.*

plans. Seven out of nine emissions units are said by IEPA to be exempt from CAM due solely to the filing date of the initial application. These include the coke by-product recovery plant, continuous casting, slab reheat furnaces, finishing operations, wastewater treatment plant, boilers, and engines in permit Conditions 7.3.4.c, 7.6.4.e, 7.7.4.e, 7.8.4.e, 7.9.4.e, 7.10.4.c, and 7.11.4.b.

Thus, the facts underlying the permit and the law governing the permitting process require that CAM rules must be included in the current Title V permit.

VI. Numerous Permit Provisions Lack Practical Enforceability

A Title V permit must be sufficiently clear and specific to ensure that all applicable requirements contained therein are enforceable as a practical matter. USEPA has described “practical enforceability” in the permitting context:

A permit is enforceable as a practical matter (or practically enforceable) if permit conditions establish a clear legal obligation for the source [and] allow compliance to be verified. Providing the source with clear information goes beyond identifying the applicable requirement. It is also important that permit conditions be unambiguous and do not contain language which may intentionally or unintentionally prevent enforcement.¹³²

To achieve practical enforceability, a Title V permit must accurately describe operational requirements and limitations on emissions for a facility, including any alternative processes that the permitting state has selected. 40 CFR §§ 70.6(a)(1)(iii) & (a)(3). In addition, a Title V permit must include monitoring and related recordkeeping and reporting requirements. 40 CFR § 70.6(a)(3).

The USS-GCW facility is extremely complex, and many provisions of the permit lack one or more of the conditions necessary for practical enforceability. These provisions must be revised.

A. The Permit Fails to Appropriately Incorporate Plans by Reference

USEPA “expects that Title V permits will explicitly state all emission limitations and operational requirements for all applicable emission units at a facility.”¹³³ The obligation to issue clear and meaningful permits must be met despite the potential usefulness of incorporation by reference. USEPA has established that incorporation by reference sufficient to assure compliance with the CAA requires that: “(1) referenced documents be specifically identified; (2) descriptive information such as the title or number of the document and the date of the document be included so that there is no ambiguity as to which version of a document is being reference; and (3) citations, cross references, and incorporations by reference are detailed enough that the manner in which any referenced material applies to a facility is clear and is not reasonably subject to misinterpretation.”¹³⁴ In addition, the USEPA Administrator recently reiterated that the permitting authority must ensure that all emission limits and operational

¹³² USEPA Region 9 Title V Permit Review Guidelines, Sept. 9, 1999, p. III-46 (as quoted in *In the Matter of Midwest Generation, LCC, Fisk Generating Station*, Petition No. V-2004-1; CAAPP No. 95090081 (March 25, 2005), 2005 EPA CAA Title V LEXIS 4; *In the Matter of Midwest Generation, LCC, Joliet Generating Station*, Petition No. V-2004-3; CAAPP No. 95090046 (June 24, 2005), 2005 EPA CAA Title V LEXIS 12; *In the Matter of Midwest Generation, LCC, Romeoville Generating Station*, Petition number V-2004-4; CAAPP No. 95090080 (June 24, 2005), 2005 EPA CAA Title V LEXIS 13).

¹³³ *In the Matter of Tesoro Refining and Marketing*, Petition No. IX-2004-6 at 8 (March 15, 2005).

¹³⁴ *In the Matter of the Premcor Refining Group, Inc., Port Arthur, Texas*, Petition No. VI-2007-02 at 29 (citing *White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program* (March 5, 1996))

requirements “are included *on the face* of the title V permit.”¹³⁵ Where a permit incorporates by reference but does not include the limit or requirement on its face, the permit must be reopened and the deficiency remedied.¹³⁶

IEPA seeks to incorporate by reference several plans into the permit. In its Responsiveness Summary, IEPA attempts to establish its own criteria for proper incorporation by reference: that the incorporated document must (1) exist at the time of incorporation; (2) be described in the incorporating document with enough specificity to be identified; and (3) the main document must clearly identify the intent that the document be incorporated by reference.¹³⁷ This is the first time IEPA has provided identifying information (albeit too limited) for these plans. However, even this limited information is still not in the final permit.

Thus, IEPA has failed to follow its own procedure for incorporating a document by reference, failed to follow USEPA’s procedure for incorporating a document by reference, and rendered it unclear from the permit and to the public which documents have been incorporated and to what extent. Without this information, the permit is not practically enforceable. IEPA must incorporate clearly and on the face of the permit itself, not in a responsiveness summary, the following plans:

- (1) Condition 5.3.3 of the permit requires that USS-GCW submit a fugitive particulate matter operating plan to the IEPA and operate under such plan. This section is not enforceable because it contains no facility-specific information or requirements. The language only restates key requirements in 35 IAC 212.309 through 212.312. The permit does not indicate whether or when GCW submitted the required fugitive particulate matter operating plan or whether it was approved. Additionally, the permit does not indicate that the operating plan, if submitted, was updated as required by 35 IAC 212.312. IEPA notes in its Responsiveness Summary that a plan was last updated in August 2007, but does not provide any identifying information about that plan in the permit. If IEPA seeks to incorporate a plan by reference, it must include in the permit: the title of the operating plan; the date of plan approval; and the dates of any updates or amendments. All information or documents referenced by IEPA throughout the permit also must be readily available to the public at the permitting authority.¹³⁸ The permit must be modified to include the information required to appropriately incorporate the operating plan by reference.
- (2) Condition 5.3.4 requires that USS-GCW submit a PM₁₀ Contingency Measure Plan incorporated by reference. However, the permit does not indicate a title or date that the PM₁₀ Contingency Plan was approved by the IEPA. Also, the permit does not state whether any amendments have been made to the plan and the dates of any such amendments. IEPA states in its Responsiveness Summary that a plan was submitted in November 1994, but does not provide any identifying information about a plan in the permit. The permit must be modified to include the information required to appropriately incorporate the plan by reference.
- (3) Condition 5.3.10 requires that USS-GCW submit an Episode Action Plan for reducing the levels of emissions during yellow alerts, red alerts, and emergencies. However, the permit does not indicate a title or date that an Episode Action Plan was submitted or approved by the IEPA. Also, the permit does not state whether any amendments have been made to a plan and the dates of any such amendments. IEPA states in its Responsiveness Summary that a plan was submitted in September 1987, but does not provide any identifying information about a plan in the permit.

¹³⁵ *In the Matter of CITGO Refining and Chemicals Company L.P., West Plant, Corpus Christi, Texas*, Petition No. VI-2007-01 at 11 (May 28, 2009).

¹³⁶ *Id.*

¹³⁷ Responsiveness Summary, at 25 cmt. 5 (Exhibit 7).

¹³⁸ *White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program* at E.1 (March 5, 1996).

The permit must be modified to include the information required to appropriately incorporate the plan by reference.

- (4) Condition 7.2.5-1.b.i requires that USS-GCW submit a written Soaking Plan. However, the permit does not indicate a title or date that a Soaking Plan was submitted or approved by the IEPA. Also, the permit does not state whether any amendments have been made to a plan and the dates of any such amendments. IEPA states in its Responsiveness Summary that a plan was initially submitted in April 2006 and revised in May 2007, but does not provide any identifying information about a plan in the permit. The permit must be modified to include the information required to appropriately incorporate the plan by reference.
- (5) Condition 7.2.5-2 requires that USS-GCW submit a written work practice plan, and appropriate revisions, to achieve compliance with visible emission limitations. However, the permit does not indicate a title or date that the work practice plan was submitted to or approved by IEPA. Also, the permit does not state whether any amendments have been made to the plan and the dates of such amendments. IEPA's Responsiveness Summary simply incorporates its response to the failure to properly identify any Soaking Plan. The permit must be modified to include the information required to appropriately incorporate the work practice plan by reference.

B. Vague Provisions in the Permit Are Not Practically Enforceable

Permit conditions must contain sufficient detail to ensure that the source and the public clearly understand permit obligations and compliance evaluation procedures. The vague permit provisions below lack specificity, rendering compliance within the discretion of USS-GCW.

Condition 7.7.5.a requires that USS-GCW “demonstrate that all *reasonable steps*” are taken to minimize startup emissions. Condition 9.10.2.a.iv similarly provides that during periods of emergency the permittee must show that it “took all *reasonable steps* to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.” The term “reasonable steps” is not defined in the permit or the SIP and is therefore practically unenforceable. The USEPA Administrator objected to the term “reasonable steps” in *In the Matter of Midwest Generation, LCC, Joliet Generating Station*, ruling that “because the permit condition does not specify criteria, consistent with the SIP, to determine whether a unit can be ‘reasonably’ repaired or what constitutes ‘reasonable’ steps during malfunction or breakdown, the condition is practically unenforceable.”¹³⁹ On this basis, USEPA mandated that “IEPA must remove ‘reasonably’ and ‘reasonable’ . . . define the terms, or provide criteria to determine ‘reasonably’ and ‘reasonable,’ and revise the condition to be consistent with the provisions of the underlying applicable requirement.”¹⁴⁰

In its Responsiveness Summary, IEPA argues that merely citing the unidentified “applicable regulation” wherein the “reasonable steps” language is contained satisfies the burden imposed by USEPA. However, the Administrator’s statement in the *Joliet Generating Station* decision indicates that citation without definition is not sufficient. In addition, 40 C.F.R. § 70.7(a)(5) requires IEPA to set forth the legal and factual basis for permit conditions, including references to the applicable statutory or regulatory provisions. IEPA must, in the statement of basis or permit, set forth the particular regulation on which the operational requirement is based.

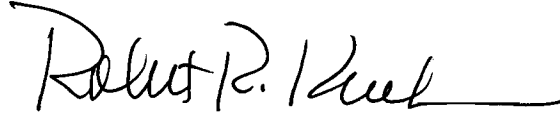
¹³⁹ Petition No. V-2004-3; CAAPP No. 95090046 (June 24, 2005), 2005 EPA CAA Title V LEXIS 12, *59.

¹⁴⁰ *Id.*; see also *In the Matter of Midwest Generation, LCC, Romeoville Generating Station*, 2005 EPA CAA Title V LEXIS 13, *54-55; *In the Matter of Midwest Generation, LCC, Fisk Generating Station*, 2005 EPA CAA Title V LEXIS 4, *44-45. *In the Matter of Midwest Generation, LCC, Crawford Generating Station*, 2005 EPA CAA Title V LEXIS 5, *41-42.

CONCLUSION

For the reasons set forth above, ABC respectfully requests that the Administrator of USEPA grant the Petition to Object to the USS-GCW Title V permit and order IEPA to: (1) modify the permit as requested herein to ensure compliance with the Clean Air Act; (2) prepare a new project summary; and (3) issue the new draft permit for public review and comment.

Respectfully submitted,



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Edwin C. Bakowski, Manager, Permit Section, Division of Air Pollution Control, IEPA
Jill A. Foust, U.S. Steel Corporation, Granite City Works

EXHIBIT LIST

- Exhibit 1: CAAPP Permit for U.S. Steel Corporation Granite City Works (IEPA, Sept. 3, 2009)
- Exhibit 2: Draft CAAPP Permit for U.S. Steel Corporation Granite City Works (IEPA, Oct. 6, 2008)
- Exhibit 3: Project Summary, Draft CAAPP Permit for U.S. Steel Corporation Granite City Works (IEPA, Oct. 15, 2008)
- Exhibit 4: Questions Pending from U.S. Steel Title V Public Hearing (IEPA , Jan. 15, 2009)
- Exhibit 5: Letter from Maxine I. Lipeles & Peter W. Goode, IEC, to Annet Godiksen, Hearing Officer, IEPA (Feb. 27, 2009)
- Exhibit 6: Proposed CAAPP Permit for U.S. Steel Corporation Granite City Works (IEPA, June 15, 2009)
- Exhibit 7: Responsiveness Summary for Public Questions and Comments on the CAAPP Operating Permit Application from U. S. Steel Corporation Granite City Works (IEPA, Sep. 3, 2009)
- Exhibit 8: "Recommended Lead Nonattainment Area Designations in Illinois." IEPA Presentation to East-West Gateway Air Quality Advisory Committee (September 29, 2009)
- Exhibit 9: Consent Order, *Illinois ex rel Madigan v. U.S. Steel Corporation, Inc.*, No. 05-CH-750 (Dec. 18, 2007, Circuit Court, Third Judicial Circuit, Madison County, Ill.)
- Exhibit 10: Second Supplemental Complaint, *Illinois ex rel Madigan v. U.S. Steel Corporation, Inc.*, No. 05-CH-750 (Oct. 17, 2007, Circuit Court, Third Judicial Circuit, Madison County, Ill.)
- Exhibit 11: USEPA, Environmental Justice Graphic Assessment Tool (identifying the demographic profile within 5 miles of the USS-GCW facility)
- Exhibit 12: U.S. Census Bureau, *State & County Quick Facts: Madison County, IL*, updated Sep. 4, 2009
- Exhibit 13: National Center for Education Statistics, Common Core of Data, 2006-2007, available at <http://nces.ed.gov/ccd/>. Custom-built tables for Madison, IL schools
- Exhibit 14: National Center for Education Statistics, Common Core of Data, 2006-2007, available at <http://nces.ed.gov/ccd/>. Custom-built tables for Madison County
- Exhibit 15: United States Steel Corp. Granite City Works Annual Emissions Report, 2007 (IEPA, Mar. 28, 2008)

- Exhibit 16: American Lung Association, State of the Air Report 2009, Madison County, available at <http://www.stateoftheair.org/2009/states/illinois/madison-17119.html>
- Exhibit 17: USEPA, 2002 National-Scale Air Toxics Assessment, "tct_risk_il.kmz" available at <http://www.epa.gov/ttn/atw/nata2002/tables.html> (last accessed September 30, 2009) Screen shots of the Google Earth Risk Map for Census Tracts 400500 and 400300
- Exhibit 18: Permit No. 06070022 – Emission Reduction Credits permit issued January 18, 2007
- Exhibit 19: Permit No. 06070023 – Cogeneration Project permit issued January 30, 2008
- Exhibit 20: Permit No. 06070088 – Coke Conveyance System Permit issued March 13, 2008
- Exhibit 21: Permit No. 06070020 – Coke Plant Permit issued March 13, 2008 to Gateway Energy & Coke Company, c/o SunCoke Company
- Exhibit 22: Letter from Carol Rushin, Acting Regional Administrator, USEPA, Region 8, to Steven M. Pirner, Secretary, South Dakota Department of Environment & Natural Resources (Jan. 22, 2009)
- Exhibit 23: Letter from John Seitz, Director, EPA Office of Air Quality Planning & Standards, to Robert Hodanbosi and Charles Laggors of STAPPA/ALAPCO (May 20, 1999)
- Exhibit 24: USEPA, Office of Air Quality Planning Standards, *Title V Monitoring Technical Reference Document* (April 2001 draft)
- Exhibit 25: USEPA, Region 5, Review of Illinois' Title V Operating Permit Program, United States Environmental Protection Agency (Aug. 2004)
- Exhibit 26: Letter from Raymond E. Pilapil, Compliance Section Bureau of Air, IEPA, to Sharon K. Owen, USS-GCW, Violation Notice A-2008-00223 (Jan. 29, 2009)
- Exhibit 27: Letter from Raymond E. Pilapil, Compliance Section Bureau of Air, IEPA, to Richard Veitch, USS-GCW, Violation Notice A-2009-00034 (Mar. 12, 2009)
- Exhibit 28: E-mail from Genevieve Damico, USEPA, to Michael Reed & Anatoly Belogorsky, IEPA (Feb. 4, 2009)
- Exhibit 29: Shaw Stone & Webster, *Particulate Monitoring in Wet Scrubbed Stacks: New Rules/New Opportunities* (Oct. 26, 2006)
- Exhibit 30: USEPA, Region 7, *Guidance on Periodic Monitoring for Opacity* (April 18, 1997)
- Exhibit 31: U.S. Environmental Protection Agency, Region 9, *Guidelines: Periodic Monitoring* (Sept. 09, 1999)
- Exhibit 32: *In the Matter of Tesoro Refining and Marketing Co.*, Petition No. IX-2004-6 (Dec. 19 2003)

- Exhibit 33: *In the Matter of Fort James Camas Mill*, Petition No. X-1999-1 (Dec. 22, 2000)
- Exhibit 34: Letter from USEPA to Florida Department of Environmental Protection (Dec. 11, 1997)
- Exhibit 35: Letter from Adam M. Kushner, Dir. Office of Civil Enforcement, USEPA, to Charles H. Knauss et al. (July 22, 2009)
- Exhibit 36: Memorandum from Kathleen M. Bennett, Assistant Adm'r for Air, Noise, and Radiation, USEPA, to Reg'l Adm'rs, Regions I-X, USEPA (Sept. 28, 1982)