

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

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

**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.<sup>1</sup> 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.<sup>2</sup>

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.<sup>3</sup> A public hearing regarding the new draft permit occurred on December 2, 2008, after which IEPA provided follow-up answers in

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<sup>1</sup> 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)).

<sup>2</sup> 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.").

<sup>3</sup> 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.<sup>4</sup> Subsequently, on February 27, 2009, ABC submitted substantial written comments.<sup>5</sup>

IEPA issued a Proposed CAAPP Permit on June 15, 2009,<sup>6</sup> 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.<sup>7</sup> 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.<sup>8</sup> 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<sub>2.5</sub>)<sup>9</sup> and ground-level ozone.<sup>10</sup> 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.<sup>11</sup>

USS-GCW, located in a residential community and adjacent to a state park, is the primary source of fine particle pollution in the region,<sup>12</sup> 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.<sup>13</sup> However,

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

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

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

<sup>7</sup> 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).

<sup>8</sup> IEPA, *Technical Support Document for the Recommended Nonattainment Boundaries in Illinois for the 24-Hour PM<sub>2.5</sub> 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>.

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

<sup>10</sup> 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/qnea.html#7040>.

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

<sup>12</sup> USS-GCW has the highest annual mean values of PM<sub>2.5</sub> emissions. *Id.* at 9, table 2. IEPA, *Technical Support Document for the Recommended Nonattainment Boundaries in Illinois for the 24-Hour PM<sub>2.5</sub> 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>.

<sup>13</sup> 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.<sup>14</sup> 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.<sup>15</sup>

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.<sup>16</sup>

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,<sup>17</sup> 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.<sup>18</sup> 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.<sup>19</sup>

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.<sup>20</sup> Within just one mile, the city of Madison has

<sup>14</sup> 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).

<sup>15</sup> *Id.*

<sup>16</sup> Exec. Order No. 12898, 59 Fed. Reg. 7629 (Feb. 16, 1994)

<sup>17</sup> Responsiveness Summary at 23 (Exhibit 7).

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

<sup>19</sup> 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);

<sup>20</sup> <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.<sup>21</sup> 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.<sup>22</sup> 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.<sup>23</sup>

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.<sup>24</sup> The Madison County Transit Schoolhouse Trail goes through USS-GCW facility grounds behind the coke plant.<sup>25</sup>

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 PM<sub>10</sub> and PM<sub>2.5</sub>, respectively); 16,410.52 tons per year of ozone precursors (CO, NO<sub>x</sub>, and VOCs); and 1.33 tons per year of lead.<sup>26</sup> 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.<sup>27</sup> 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<sub>2.5</sub>).<sup>28</sup>

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.<sup>29</sup>

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

<sup>21</sup> <http://www.madisoncusd12.org/>

<sup>22</sup> National Center for Education Statistics, *Common Core of Data, 2006-2007*, available at [http://nces.ed.gov/ipeds/data/ipeds\\_datacenter/ipeds\\_datacenter.asp](http://nces.ed.gov/ipeds/data/ipeds_datacenter/ipeds_datacenter.asp). Custom-built tables for Madison City schools (Exhibit 13) and Madison County schools (Exhibit 14).

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

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

<sup>25</sup> <http://www.mctrails.org/viewer.htm>; [http://www.trailnet.org/trail\\_main.php](http://www.trailnet.org/trail_main.php).

<sup>26</sup> 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 (EPA, Mar. 28, 2008) ("2007 Annual Emissions Report") (Exhibit 15).

<sup>27</sup> 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).

<sup>28</sup> American Lung Association, *State of the Air Report 2009*, People at Risk in 25 Counties Most Polluted by Long-term Particle Pollution (Annual PM<sub>2.5</sub>), available at [http://www.stateoftheair.org/2009/sota-tables/People\\_at\\_Risk\\_in\\_25\\_Counties\\_Most\\_Polluted\\_Long-Term.pdf](http://www.stateoftheair.org/2009/sota-tables/People_at_Risk_in_25_Counties_Most_Polluted_Long-Term.pdf) (last accessed October 1, 2009).

<sup>29</sup> 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.<sup>30</sup> This is more than 30 times higher than the national average risk of 36 in one million.<sup>31</sup> According to NATA data, USS-GCW's coke oven emissions account for 95% of the pollutant contributions responsible for this increased cancer risk.<sup>32</sup> 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.<sup>33</sup> In this census tract, USS-GCW's coke oven emissions account for 91% of the pollutant contributions responsible for the increased cancer risk.<sup>34</sup>

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."<sup>35</sup>

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

<sup>30</sup> 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).

<sup>31</sup> 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).

<sup>32</sup> USEPA, *2002 National-Scale Air Toxics Assessment*, "tet\_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).

<sup>33</sup> "2002\_NATA\_US\_Cancer\_Risk\_Tract\_081409.mdb", available at <http://www.epa.gov/ttn/atw/nata2002/tables.html> (last accessed September 30, 2009).

<sup>34</sup> Google Earth Risk Map (Exhibit 17).

<sup>35</sup> *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.<sup>36</sup>

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 renoficed 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)<sup>37</sup>

#### 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.

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

<sup>37</sup> 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."<sup>38</sup> 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.<sup>39</sup>

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.<sup>40</sup>

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.<sup>41</sup> Because the coke plant project constitutes a major source of nonattainment pollution (PM<sub>2.5</sub>) in the region, the coke plant project could not proceed without "offsets" of other PM<sub>2.5</sub> 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.<sup>42</sup>

In addition, IEPA permitted the coke plant project on the basis that while emissions of PM and PM<sub>10</sub> were subject to PSD requirements and emissions of PM<sub>2.5</sub> 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).<sup>43</sup> 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

<sup>38</sup> 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 Lagers of STAPPA/ALAPCO (May 20, 1999) ("1999 Seitz Letter") (Exhibit 23)).

<sup>39</sup> 1999 Seitz Letter, at Enclosure A, p. 1 (Exhibit 23).

<sup>40</sup> *In the Matter of Midwest Generation, LLC, 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).

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

<sup>42</sup> See section 3.1.1 of permit 06070088 and section 3.1.3 of permit 06070020.

<sup>43</sup> 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.<sup>44</sup>

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:<sup>45</sup>

<sup>44</sup> Rushin Letter, Enclosure at p. 2 (emphasis added) (Exhibit 22).

<sup>45</sup> 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.<sup>46</sup>

The Clean Air Act requires periodic monitoring sufficient to assure compliance with applicable emission limits in Title V/CAAAPP permits.<sup>47</sup> 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:<sup>48</sup>

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.

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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)).

<sup>46</sup> 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).

<sup>47</sup> 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).

<sup>48</sup> 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.*”<sup>49</sup>

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.<sup>50</sup>

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).”<sup>51</sup> 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.”<sup>52</sup>

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.<sup>53</sup> 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.<sup>54</sup> 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.<sup>55</sup>

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

<sup>50</sup> 415 ILL. COMP. STAT. 5/39.5(7)(b).

<sup>51</sup> 40 C.F.R. § 70.7(a)(5) (emphasis added).

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

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

<sup>54</sup> *Id.*

<sup>55</sup> *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.<sup>56</sup>

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."<sup>57</sup>

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.<sup>58</sup>

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.<sup>59</sup> 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."<sup>60</sup> 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.<sup>61</sup>

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

<sup>56</sup> *Id.* at 7-8.

<sup>57</sup> 42 U.S.C. § 7661(c).

<sup>58</sup> 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).

<sup>59</sup> Project Summary at 82 (Exhibit 3).

<sup>60</sup> *Id.* at 83.

<sup>61</sup> 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 PM<sub>10</sub> 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 PM<sub>10</sub> emissions from the facility's coal handling operations. The lack of adequate monitoring is particularly concerning because a testing requirement for PM<sub>10</sub> 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 7.2.3-3(a) pursuant to 40 CFR Part 63, Subpart L."<sup>67</sup> 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

<sup>67</sup> 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.<sup>63</sup>

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."<sup>64</sup> 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.<sup>65</sup> In addition, PM CEMS have become commonplace in multiple industrial applications including utilities, pulp mills, copper smelters, and refineries.<sup>66</sup> 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.<sup>67</sup>

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

<sup>63</sup> E-mail from Genevieve Damico at cmt. 12 (Exhibit 28).

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

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

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

<sup>67</sup> 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."<sup>68</sup> 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."<sup>69</sup> 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."<sup>70</sup> 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.<sup>71</sup> 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.

<sup>68</sup> USEPA Title V Monitoring Technical Reference Document at 16-1viii (Exhibit 24).

<sup>69</sup> Responsiveness Summary, at 27 cmt. 14 (Exhibit 7).

<sup>70</sup> *Id.* at 28 cmt. 17.

<sup>71</sup> 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."<sup>72</sup> 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."<sup>73</sup> 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.<sup>74</sup> 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

<sup>72</sup> Responsiveness Summary, at 29 cmt. 20 (Exhibit 7).

<sup>73</sup> *Id.* at 33 cmt. 35.

<sup>74</sup> "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.<sup>75</sup> 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."<sup>76</sup> Significant inter-facility variation may result in emissions that differ by an order of magnitude or more.<sup>77</sup> 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."<sup>78</sup> 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<sub>x</sub> 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<sub>x</sub> standard."<sup>79</sup> 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."<sup>80</sup> 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.

<sup>75</sup> USEPA, Region 9, *Guidelines - Periodic Monitoring* (Sept. 09, 1999) (Exhibit 31).

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

<sup>77</sup> *Id.* at 3.

<sup>78</sup> *Id.* at 2.

<sup>79</sup> *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)

<sup>80</sup> *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<sub>x</sub> 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<sub>x</sub> emissions would not change over the life of the permit."<sup>81</sup> 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<sub>x</sub> standard during the anticipated range of operations.<sup>82</sup>

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) – PM<sub>10</sub> Emission Limit*

Condition 7.4.6(b) sets a PM<sub>10</sub> 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 PM<sub>10</sub> emission limit in Condition 7.4.6(b).<sup>83</sup> 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 PM<sub>10</sub> limit.

*ii. Condition 7.4.6(b) – SO<sub>2</sub> Emission Limit*

Condition 7.4.6(b) sets an SO<sub>2</sub> 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: "SO<sub>2</sub> 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."<sup>84</sup> 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 SO<sub>2</sub> 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 SO<sub>2</sub> limit.

<sup>81</sup> *Id.*

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

<sup>83</sup> Responsiveness Summary, at 32 cmt. 29 (Exhibit 7).

<sup>84</sup> *Id.* at 29 cmt 21.

### iii. Condition 7.4.6(b) -- NO<sub>x</sub> Emission Limit

Condition 7.4.6(b) sets a NO<sub>x</sub> 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<sub>x</sub> 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."<sup>85</sup> 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<sub>x</sub> 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<sub>x</sub> 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."<sup>86</sup> 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<sub>x</sub> 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<sub>x</sub> 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."<sup>87</sup> 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

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<sup>85</sup> *Id.* at 30 cmt. 22.

<sup>86</sup> *Id.*

<sup>87</sup> *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) – SO<sub>2</sub> Emission Limit

Condition 7.4.6(c) sets an SO<sub>2</sub> 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.”<sup>88</sup> 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<sub>x</sub> Emission Limit

Condition 7.4.6(c) sets a NO<sub>x</sub> 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.”<sup>89</sup> 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.”<sup>90</sup> 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 PM<sub>10</sub> 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.

<sup>88</sup> *Id.* at 30 cmt. 24.

<sup>89</sup> *Id.* at 30 cmt. 25.

<sup>90</sup> *Id.* at 31 cmt. 26.

*d Slag Pits Emissions*

i. Condition 7.4.6(e) – PM<sub>10</sub> Emission Limit

Condition 7.4.6(e) sets a PM<sub>10</sub> 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) – SO<sub>2</sub> Emission Limit

Condition 7.4.6(e) sets an SO<sub>2</sub> 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."<sup>91</sup> 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) – PM<sub>10</sub> Emission Limit

Condition 7.4.6(f) sets a PM<sub>10</sub> 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.<sup>92</sup> 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 PM<sub>10</sub> 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 PM<sub>10</sub> limit.

ii. Condition 7.4.6(f) – SO<sub>2</sub> Emission Limit

Condition 7.4.6(f) sets an SO<sub>2</sub> 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 SO<sub>2</sub> 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

<sup>91</sup> *Id.* at 31 cmt. 27.

<sup>92</sup> *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 SO<sub>2</sub> limit.

*f. Iron Pellet Screen Emissions*

Condition 7.4.6(g) sets a PM<sub>10</sub> 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."<sup>93</sup> 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 EFFF 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)."<sup>94</sup> 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**

<sup>93</sup> *Id.* at 37 cmt 46.

<sup>94</sup> *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<sub>x</sub> Emission Limit*

Condition 7.5.6(c) sets a NO<sub>x</sub> 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<sub>x</sub> emission factor to assure compliance with the limit. According to IEPA, the emission factor is based on the testing of NO<sub>x</sub> emissions performed by the source.<sup>95</sup> 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<sub>x</sub> emissions are substantially lower during periods of oxygen blow than during periods of non-oxygen blow.<sup>96</sup> Given this information, a NO<sub>x</sub> emission factor based on testing during periods of oxygen blow would be inappropriate for use to assure compliance with a NO<sub>x</sub> 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<sub>x</sub> 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

<sup>95</sup> *Id.* at 33 *em.* 36.

<sup>96</sup> USEPA, *Alternative Control Techniques - NO<sub>x</sub> Emissions from Iron and Steel Mills*, p. 15 (EPA-453/R-94-065), available at [http://www.epa.gov/ttn/cate/dir1/iron\\_act.pdf](http://www.epa.gov/ttn/cate/dir1/iron_act.pdf).

based on the testing of VOM emissions performed by the source.<sup>97</sup> 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.<sup>98</sup> 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.<sup>99</sup> 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.<sup>100</sup> Approximately 95% of annual facility lead emissions are released from the BOF ESP stack.<sup>101</sup> 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.”

<sup>97</sup> Responsiveness Summary at 34 cmt. 37 (Exhibit 7).

<sup>98</sup> *Id.* at 34 cmt. 38.

<sup>99</sup> *Id.*

<sup>100</sup> 2007 Annual Emissions Report at 3 (Exhibit 15).

<sup>101</sup> *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.<sup>102</sup> 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."<sup>103</sup> 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.<sup>104</sup> 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."<sup>105</sup> 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*

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<sup>102</sup> Responsiveness Summary, at 35 cmt. 40 (Exhibit 7).

<sup>103</sup> *Id.*

<sup>104</sup> *Id.* at 34 cmt. 39.

<sup>105</sup> *Id.* at 35 cmt. 40.

Condition 7.5.6(f) sets a PM<sub>10</sub> 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 PM<sub>10</sub> limit.

*e. Flux Conveyor, Transfer Pits, and Binfloor Emissions*

Condition 7.5.6(g) sets a PM<sub>10</sub> 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 PM<sub>10</sub> limit.

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

Condition 7.5.6(i) sets a PM<sub>10</sub> 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 PM<sub>10</sub> 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)-(c) 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<sub>x</sub> Emission Limit*

Condition 7.6.7(b) sets a NO<sub>x</sub> 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) PM<sub>10</sub> Emission Limits*

Conditions 7.6.7(a)-(e) set PM<sub>10</sub> 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 PM<sub>10</sub> 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.<sup>166</sup>

## **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. PM<sub>10</sub> Emission Limit**

Condition 7.10.3(b)(ii) sets a PM<sub>10</sub> 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."<sup>167</sup> 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**

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<sup>166</sup> 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/titl5/t5memos/lp&11997.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.

<sup>167</sup> Responsiveness Summary at 40 cmt. 58 (Exhibit 7).

Condition 7.11.7(b) sets PM, CO, NO<sub>x</sub>, and SO<sub>2</sub> 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 IAC 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."<sup>108</sup> 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."<sup>109</sup> 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.<sup>110</sup>

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.<sup>111</sup> 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**

<sup>108</sup> *Id.* at 41 cmt. 64.

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

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

<sup>111</sup> <http://www.epa-echo.gov/cgi-bin/getReport.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.<sup>112</sup> 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.<sup>113</sup>

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.<sup>114</sup>

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.<sup>115</sup>

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

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

<sup>113</sup> *Id.* at paragraphs D.3.d. and e.

<sup>114</sup> 42 U.S.C. § 7661b(e).

<sup>115</sup> 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.<sup>116</sup>

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.<sup>117</sup> 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.<sup>118</sup> 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).

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

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

<sup>118</sup> 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.<sup>119</sup>

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.<sup>120</sup> IEPA bases its conclusion on a July 22, 2009 USEPA letter addressing industry concerns regarding the impact of the *Sierra Club* decision.<sup>121</sup> 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.b<sup>122</sup> - exempt USS-GCW from complying with the MACT emission limits in 40 C.F.R. Part 63 Subpart ZZZZ;

<sup>119</sup> *Id.* at 1028.

<sup>120</sup> Responsive Summary, at 42-43 cmt. 69 (Exhibit 7).

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

<sup>122</sup> 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 I to Subpart CCC of Part 63.<sup>123</sup>

**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,<sup>124</sup> 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.<sup>125</sup> Furthermore, EPA has stated that automatic exemptions from emissions limits are not allowed.<sup>126</sup> 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.

<sup>123</sup> 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 I (Exhibit 35).

<sup>124</sup> We question whether the reference to 35 IAC 201.161 was intended to be 35 IAC 201.261.

<sup>125</sup> 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).

<sup>126</sup> 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.<sup>127</sup> 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<sub>2.5</sub> 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.<sup>128</sup>

Thus, IEPA admits that the SSM exemptions could interfere with maintenance of ambient air quality standards for lead and PM<sub>2.5</sub> 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.<sup>129</sup>

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.

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

<sup>128</sup> Responsiveness Summary at 53 cmt. 1 (Exhibit 7).

<sup>129</sup> *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<sub>2.5</sub>. 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.<sup>130</sup> 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."<sup>131</sup> 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

<sup>130</sup> Responsiveness Summary, at 43 cmt. 70 (Exhibit 7).

<sup>131</sup> *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.<sup>132</sup>

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."<sup>133</sup> 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."<sup>134</sup> In addition, the USEPA Administrator recently reiterated that the permitting authority must ensure that all emission limits and operational

<sup>132</sup> 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).

<sup>133</sup> *In the Matter of Tesoro Refining and Marketing*, Petition No. IX-2004-6 at 8 (March 15, 2005).

<sup>134</sup> *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."<sup>135</sup> 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.<sup>136</sup>

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.<sup>137</sup> 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.<sup>138</sup> 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 PM<sub>10</sub> Contingency Measure Plan incorporated by reference. However, the permit does not indicate a title or date that the PM<sub>10</sub> 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.

<sup>135</sup> *In the Matter of UTGCO Refining and Chemicals Company L.P., West Plant, Corpus Christi, Texas*, Petition No. VI-2007-01 at 11 (May 28, 2009).

<sup>136</sup> *Id.*

<sup>137</sup> Responsiveness Summary, at 25 emt. 5 (Exhibit 7).

<sup>138</sup> *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."<sup>139</sup> 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."<sup>140</sup>

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.

<sup>139</sup> Petition No. V-2004-3; CAAPP No. 95090046 (June 24, 2005), 2005 EPA CAA Title V LEXIS 12, \*59.

<sup>140</sup> *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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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 Lagers 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 Cumas 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)