UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF: C-14J

October 12, 2012

The Honorable Susan L. Biro, Chief Administrative Law Judge
U.S. EPA Office of the Hearing Clerk
1099 14th St. NW
Suite 350, Franklin Court
Washington, DC 20005

RE: In the Matter of Carbon Injection Systems LLC, Scott Forster, and Eric Lofquist; Docket No. RCRA-05-2011-0009

Dear Chief Judge Biro:

Please find enclosed a copy of Complainant's Initial Post-Hearing Brief, filed on October 12, 2012, in the above-captioned matter. Please note that due to Confidential Business Information issues, Complainant is filing a full copy under seal and a redacted copy. Because the hearing transcript has not yet been released in redacted form by the Court, Complainant has redacted most quotations from the transcript. By redacting its filing in this manner, Complainant does not concede that all information redacted is entitled to confidential treatment as Confidential Business Information pursuant to 40 C.F.R. Part 2 or this Court's October 26, 2011 Order on Joint Motion for Entry of Stipulation and Protective Order Regarding Confidentiality.

Sincerely yours,

Catherine Garypie
Associate Regional Counsel

Enclosures

cc: Keven D. Eiber (w/ enclosures)
Lawrence M. Falbe (w/ enclosures)

CONTAINS CONFIDENTIAL INFORMATION – SUBJECT TO PROTECTIVE ORDER

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

BEFORE THE ADMINISTRATOR

In the Matter of:	)	
	)	
Carbon Injection Systems LLC,	)	
Scott Forster,	)	**Docket No. RCRA-05-2011-0009**
and Eric Lofquist,	)	
	)	
	)	
Respondents.	)	
	)	

COMPLAINANT'S INITIAL POST-HEARING BRIEF

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CONTAINS CONFIDENTIAL INFORMATION – SUBJECT TO PROTECTIVE ORDER

I. INTRODUCTION

The United States Environmental Protection Agency ("EPA" or "Complainant") submits this post-hearing brief ("Brief") pursuant to the Presiding Officer's August 6, 2012 Order setting the briefing schedule, and in accordance with EPA's Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation or Suspension of Permits ("Consolidated Rules"), 40 C.F.R. Part 22. As explained in this Brief, the record from the hearing in this matter held June 16-23, June 25-29, and July 16, 2012 establishes that Respondents Carbon Injection System LLC ("CIS"), Scott Forster ("Forster"), and Eric Lofquist ("Lofquist") are, as described in the Second Amended Complaint, liable for a variety of RCRA violations which occurred when the Respondents managed hazardous waste at the CIS facility. The record supports the issuance of a Compliance Order and assessment of at least the $1,579,173 penalty requested by EPA in the Complaint, pursuant to Section 3008 of RCRA, 42 U.S.C. § 6928, and Section 22.37(b) of the Consolidated Rules.

Specifically, the record shows that Respondents had the following violations:

1. failing to have a permit to store and treat hazardous waste, in violation of Section 3005 of RCRA, 42 U.S.C. § 6925(a) and the requirements of Ohio Administrative Code ("OAC") §§ 3745-50-40 to 3745-50-66 [40 C.F.R. §§ 270.1(c) and 270.10(a) and (d), and 270.13] (Count 1 of the Complaint);
2. failing to hold a public meeting, in violation of OAC §§ 3745-50-39(A)(2), 3745-50-40(A)(2)(a) [40 C.F.R. § 124.31(b)] (Count 2 of the Complaint);
3. failing to develop and follow a sufficient written waste analysis plan, in violation of OAC § 3745-54-13(B) and (C) [40 C.F.R. § 264.13(b) and (c)] (Count 3 of the Complaint);
4. failing to train facility personnel with a program of classroom instruction or on-the-job training, to teach them to perform their duties in a way that ensured the facility's compliance with the requirements of the standards for owners and operators of hazardous waste, treatment, storage and disposal facilities, in violation of OAC § 3745-54-16(A)(1) [40 CFR § 264.16(a)(1)], and failing to maintain documents and records related to this training, in violation of OAC § 3745-54-16(D) [40 CFR § 264.16(d)] (Count 4 of the Complaint);
5. failing to attempt to make: (a) arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would

normally be working, entrances to and roads inside the facility, and possible evacuation routes; (b) where more than one police and fire department may respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department and agreements with any others to provide support to the primary emergency authority; (c) arrangements with Ohio Environmental Protection Agency ("OEPA") emergency response teams, emergency response contractors, and equipment suppliers; and (d) arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and types of injuries or illnesses which could result from fires, explosions, or releases at the facility, in violation of OAC § 3745-54-37(A) [40 C.F.R. § 264.37(a)] (Count 5 of the Complaint);

6. failing to require a hazardous waste manifest for:
   - hazardous waste (K022) accepted on November 21, 2005;
   - hazardous waste (D001) accepted on forty (40) occasions between August 9, 2006 and February 27, 2009; and
   - hazardous waste (D001, D035, F003 and F005) accepted on one hundred forty nine (149) occasions between November 16, 2006 and February 10, 2009

   in violation of OAC § 3745-54-76 [40 CFR § 264.76], and failing to prepare and submit an unmanifested waste report in the form of a letter to the director of the OEPA within fifteen days after receiving the waste (Count 6 of the Complaint);
7. failing to have a written closure plan that identifies the steps necessary to perform partial or final closure of the facility, in violation of OAC §§ 3745-55-10 through 3745-55-20 [40 C.F.R. §§ 264.110-120] (Count 7 of the Complaint);
8. failing to have and maintain a detailed written estimate, in current dollars, of the cost of closing hazardous waste management units in violation of OAC 3745-55-42 [40 C.F.R. § 264.142], and failing to comply with applicable financial assurance requirements, in violation of OAC § 3745-55-43 [40 C.F.R. § 264.143] (Count 8 of the Complaint);
9. failing to obtain and keep on file at the facility a written hazardous waste tank assessment, in violation of OAC § 3745-55-92 [40 C.F.R. § 264.192] (Count 6 of the Complaint); and
10. failing to determine and provide land disposal notification and certification pursuant to the land disposal requirements of OAC § 3745-270-07 [40 C.F.R. § 268.7] (Count 10 of the Complaint).

Additionally, the record establishes that a minimum $1,579,173 penalty is appropriate, and that an Order requiring Respondents to comply with all closure, post-closure, and financial assurance requirements of RCRA is necessary to protect human health and the environment.

II. RELEVANT STATUTORY, REGULATORY AND POLICY BACKGROUND

A. RCRA Subtitle C and its Implementing Regulations

RCRA is a comprehensive environmental statute that authorizes EPA to regulate hazardous wastes from cradle to grave, in accordance with the safeguards and waste management

procedures of Subtitle C, 42 U.S.C. §§ 6921-6939. *See Chicago v. Envtl. Defense Fund*, 511 U.S. 328, 331 (1994); *C & A Carbone, Inc., et al. v. Town of Clarkston*, 511 U.S. 383, 408 (1994) (O'Connor concurring); *Town & Country Co-op, Inc.*, 2012 U.S. Dist. LEXIS 66128, at *7 (N.D. Ohio May 11, 2012); *AlliedSignal, Inc.*, 177 F.Supp.2d 713, 730 (S.D. Ohio 2001); *In re: Pyramid Chemical Co.*, RCRA Appeal No. RCRA-HQ-2003-001, 2004 EPA App. LEXIS 32, at *39 (Sept. 16, 2004); *In re: Leed Foundary, Inc.*, RCRA Appeal No. RCRA-03-2004-0061, 2008 EPA App. LEXIS 9 (Feb. 20, 2008); *In re: Mercury Vapor Processing Technologies, Inc., et al.*, RCRA Docket No. RCRA-05-2010-0015, 2011 EPA ALJ LEXIS 4, at *15 (May 5, 2011). The standards established by EPA to regulate hazardous wastes are found at 40 C.F.R. Parts 260 through 279, and contain requirements for the generation, storage, treatment, transportation, and disposal of hazardous wastes. Section 3005(a) of RCRA, 42 U.S.C. § 6925(a), and its implementing regulations at 40 C.F.R. Part 270, require each person owning or operating a facility for the treatment, storage, or disposal of hazardous waste to obtain a RCRA permit for its operation. Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), authorizes EPA to assess a civil penalty and issue orders requiring compliance immediately or within a specified time period for violations of any requirement of RCRA Subtitle C and its implementing regulations.

B. Applicability of Federal RCRA Regulations in Authorized States

RCRA allows a state to apply for EPA authorization of the state's hazardous waste program, and for revisions to the program. 42 U.S.C. § 6926(b). A state authorized hazardous waste program consists of state statutes or regulations authorized by EPA. Following its authorization of a state's regulatory program, EPA enforces the authorized state regulations in lieu of the federal regulations within that state. *See* 42 U.S.C. § 6926(a). Among other things, to

become authorized, a state hazardous waste program must be as stringent as the federal Subtitle C program established by EPA, must be consistent with the federal and state programs applicable in other states, and must provide for adequate enforcement of compliance with the requirements of RCRA. *See South Carolina Dept. of Health and Envt'l Control et al. v. Commerce and Industry Ins. Co.*, 372 F.3d 245, 252 (4th Cir. 2004); *Florida Power & Light Co. v. EPA*, 145 F.3d 1414, 1416-17 (D.C. Cir. 1998); *In re: General Motors Automotive - North America*, RCRA App. 06-02, 2008 EPA App. LEXIS 30, at *19 (June 20, 2008); *In re: Mercury Vapor Processing Technologies, Inc., et al.*, RCRA Docket No. RCRA-05-2010-0015, 2011 EPA ALJ LEXIS 4, at *16 (May 5, 2011). Under RCRA, states must seek authorization of programs and program revisions in accordance with the procedures outlined in 40 C.F.R. Part 271. When EPA authorizes a state program or program revision, such authorization is published in the Federal Register and is codified at 40 C.F.R. Part 272. A state program and program revisions become effective when final approval is published in the Federal Register. 40 C.F.R. § 272.21(b)(4)(iii). Once the state program (or revisions to the state program) are effective, the state regulations become the operative requirements of those aspects of RCRA for which the state program is authorized and EPA may enforce the state regulations as requirements of RCRA pursuant to Section 3008(a), 42 U.S.C. § 6928(a). *See* May 31, 2012 Order on Motions for Accelerated Decision at p. 5, fn. 7.

C. Ohio's Authorized Subtitle C Hazardous Waste Program

Pursuant to Section 3006(b) of RCRA, 42 U.S.C. § 6926(b), the Administrator of EPA granted the State of Ohio final authorization to administer a state hazardous waste program in lieu of the federal government's base RCRA program effective June 30, 1989. 54 Fed. Reg. 27170 (June 28, 1989). EPA has granted authorization for several changes to the Ohio RCRA

program since 1989. 56 Fed. Reg 14,203 (Apr. 8, 1991); 56 Fed. Reg. 28,088 (June 19, 1991); 60 Fed. Reg. 38,502 (July 27, 1995); 61 Fed. Reg. 54,950 (Oct. 23, 1996); 68 Fed. Reg. 3,429 (Jan. 24, 2003); 71 Fed. Reg. 3,220 (Jan. 20, 2006); 72 Fed. Reg. 61,063 (Oct. 29, 2007), and; 77 Fed. Reg. 15,966 (Mar. 19, 2012). *See* May 31, 2012 Order on Motions for Accelerated Decision at p. 5, fn. 7.

III. RELEVANT FACTUAL BACKGROUND

At hearing in this matter held June 16-23, June 25-29, and July 16, 2012, EPA presented the testimony of nine witnesses (Beedle, Fruehan, Clark, Awanya, Forster, Lofquist, Coad, Shepherd, and Guido). Respondents presented twelve witnesses (Sass, Charpia, Willis, Osiecki, Lofquist, Murray, Dzugan, Malecki, Forster, Bentfield, Rorick, and Poveromo).

The record establishes that Respondents operated the Facility located at Gate #4 Blast Furnace Main Avenue, Warren Township, Ohio (the "CIS Facility") from May 2005 to March 2010. CX2 at EPA29; CX5 at EPA6047; CX2 at EPA13130. Respondents installed a Fuel Oil Storage Facility at property located adjacent to the blast furnace at the RG Steel LLC facility (formerly known as Severstal Warren, Inc., Warren Consolidated Industries, Inc., and WCI Steel, Inc.) in Warren, Ohio (hereinafter "WCI" or "WCI Steel"). CX24 at EPA13130. The CIS Facility provided notification to OEPA that it was a used oil processor and marketer on February 25, 2005. CX45 at EPA17139. Thereafter, the CIS Facility received material from third party generators, blended it, and the blended material was sent from the CIS Facility to the blast furnace at WCI Steel on May 11, 2005. CX24 at EPA13130. The CIS Facility consisted of ten storage tanks, one day tank, and one oil spill/rain water collection tank. CX24 at EPA13156. The CIS Facility operated until March 2010. The WCI Steel blast furnace was idled in October 2008, and materials were stored in the CIS tanks at that time. WCI Steel blast furnace operations

resumed in March 2010. CX5 at EPA6047 and EPA6050. [redacted]

Activities conducted by Respondents at the CIS Facility included: blending used oil streams; blending used oil (both on-specification used oil and off-specification) with virgin fuel products; blending used oil to meet fuel specifications; and marketing on-specification used oil fuel to a consumer. CX5 at EPA6063; CX29 at EPA16814. Respondents stored K022, D001, D035, F003 and F005 (discarded materials) in 20,000 gallon tanks before those materials were transferred from the CIS Facility for treatment, storage, disposal, burning or incineration elsewhere. CX2 at EPA33; CX24 at EPA13130; CX46 at EPA17145. These materials were unloaded into storage tanks for sequencing into the Respondents' day tank. The Respondents' day tank fed the blast furnace at WCI Steel, where energy was recovered from the materials. On August 27, 2008, EPA conducted a Compliance Evaluation Inspection of the CIS Facility. CX29. On February 8, 2008, EPA issued a Notice of Violation to Respondent CIS, alleging certain violations of RCRA. CX30. On April 28, 2008, Respondent CIS submitted to EPA a written response to the Notice of Violation. CX31.

On February 8, 2008, EPA issued a RCRA Information Request to Respondent CIS. CX1. EPA received responses on March 27, 2008, and April 28, 2008. CX2 and CX4. On April 28, 2010, EPA issued a second RCRA Information Request to Respondent CIS. CX4. EPA received a response on June 15, 2010. CX5.

On August 31, 2010, EPA issued a Notice of Intent to File Administrative Complaint to Respondent CIS. CX35. On September 21, 2010, Respondent CIS submitted a response to the August 31, 2010, Notice of Intent to File Administrative Complaint. CX39. On October 26, 2010, EPA issued a Notice of Intent to File Administrative Complaint to Respondent Scott Forster. CX36. On November 9, 2010, EPA issued a Notice of Intent to File Administrative Complaint to Respondent Eric Lofquist. CX37. On February 8, 2011, EPA and all three Respondents met for a prefiling conference. EPA filed an Administrative Complaint on May 13, 2011.[1] CX40. Respondents filed an Answer on July 14, 2011. CX41. The parties submitted prehearing exchange documents in Fall 2011, and conducted depositions in early 2012. Both EPA and Respondents submitted motions for accelerated decision in Spring 2012, but all motions were denied. May 31, 2012 Order on Motions for Accelerated Decision. The hearing in this matter was held June 16-23, June 25-29, and July 16, 2012.

IV. STANDARD OF REVIEW

In an administrative action initiated under the Consolidated Rules, the Complainant has the burdens of presentation and persuasion that the violation occurred as alleged in the complaint, and the relief sought is appropriate. 40 C.F.R. § 22.24(a). *See In Re: Euclid of Virginia, Inc.*, RCRA (9006) Appeal No. 06-05 & 06-06, 2008 EPA App. LEXIS 13, at *19 (Mar. 11, 2008) (citing 40 C.F.R. § 22.24(a)); *In re: General Motors Automotive - North America*, RCRA App. 06-02, 2008 EPA App. LEXIS 30, at **133-34 (June 20, 2008) (citing 40 C.F.R. § 22.24(a)); *In re: Aguakem Caribe, Inc.*, Docket No. RCRA-02-2009-7110, 2011 EPA ALJ LEXIS 24, at *41(Dec. 22, 2011) (citing 40 C.F.R. § 22.24(a)).

[1] Amendments to the Complaint were allowed by this Court on March 26, 2012 and June 11, 2012.

As for liability, following Complainant's establishment of a prime facie liability case, Respondents have the burden of presenting any affirmative defenses. 40 C.F.R. § 22.24(a). *See In Re: Euclid of Virginia, Inc.*, RCRA (9006) Appeal No. 06-05 & 06-06, 2008 EPA App. LEXIS 13, at **19-20 (Mar. 11, 2008); *In re: Aguakem Caribe, Inc.*, Docket No. RCRA-02-2009-7110, 2011 EPA ALJ LEXIS 24, at *41(Dec. 22, 2011).

In addition, when the issue is whether or not a material is "solid waste" under RCRA (or, in the case of the Ohio regulations, whether or not a material is "waste" under the state program), it is critical to note that once EPA has met its burden that the material is a "solid waste", if an exemption to the definition of "solid waste" is claimed, the burden shifts to the Respondent to show that the material is not "solid waste" or is conditionally exempt from regulation:

> (F) Documentation of claims that materials are not wastes or are conditionally exempt from regulation. Respondents in actions to enforce regulations adopted under Chapter 3734 of the Revised Code who raise a claim that a certain material is not a waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

OAC 3745-51-02(F) [40 C.F.R. § 261.2(f)]. *See In re: General Motors Automotive-North America*, RCRA Appeal No. 06-02, 2008 EPA App. LEXIS 30, at **135-38 (June 20, 2008)(RCRA matter involving "spent" material regulated under 40 C.F.R. § 261.2(a)(2)(ii), (c) and Table 1, where EAB analyzed the continued use policy "which is conceptually similar" to underlying the RCRA provisions which exempt certain material from categorization as "solid waste" under 40 C.F.R. § 261.2(a)(2)(e)(1)(i-iii)); *In re: Aguakem Caribe, Inc.*, Docket No. RCRA-02-2009-7110, 2011 EPA ALJ LEXIS 24, at **41-44, 81-82, 85-87 (Dec. 22, 2011)

(finding that EPA met its prime facie burden of demonstrating that materials were "solid waste" by virtue of being "abandoned" and the burden then shifted to Respondents to demonstrate that the materials were excluded or exempt from regulation); *In re: Zaclon, Inc., et al.*, Docket No. RCRA-05-2004-0019, 2007 EPA ALJ LEXIS 20, at **14-15 (June 4, 2007) (citing to 40 C.F.R. § 261.2(f) and OAC 3745-51-02(F) for the proposition that "the burden of proof as to establishing an exception to the definition of "solid waste" is set out in the regulations"); *In re: Ashland Chemical Co.*, Docket No. RCRA V-W-86-R-13, 1987 EPA ALJ LEXIS 19, at *47 (June 22, 1987) (citing to 40 C.F.R. § 261.2(f) and stating that the burden of proof was on the respondent to prove that its solid waste fell under an exemption).

As for the proposed penalty, EPA "has the burden of proof on the appropriateness of the penalty", *In re: John A. Capozzi*, RCRA (3008) Appeal No. 02-01, 2003 EPA App. LEXIS 2, at *47 (Mar. 25, 2003) (citations omitted); *In re: Titan Wheel Corp. of Iowa*, RCRA (3008) Appeal No. 01-3, 2002 EPA App. LEXIS 10, at *12, n. 10 (June 6, 2002). *See also* May 31, 2012 Order on Respondents' Motion *In Limine* to Bar Certain Testimony and/or Opinions of U.S. EPA's Fact Witness Michael Beedle, at p. 4. EPA does not bear the "burden of proof with respect to any individual factor; rather the burden of proof goes to [EPA's] consideration of all the factors." *In re: FRM Chem, Inc.*, FIFRA Appeal No. 05-01, 2006 EPA App. LEXIS 28, at **30-31 (June 13, 2006) (quoting *In re: New Waterbury, Ltd.*, TSCA Appeal No. 93-2, 1994 EPA App. LEXIS 15 (Oct. 20, 1994)). Furthermore, "an 'appropriate' penalty is one which reflects a consideration of each factor the governing statute requires to be considered, and which is supported by an analysis of those factors." *In re: B.J. Carney Industries, Inc.*, CWA Appeal No. 96-2, 1997 EPA App. LEXIS 7, at **110-111 (June 9, 1997) (citations omitted), *appeal dismissed as moot*, 200 F.3d 1222 (9th Cir. 2000). Once the complainant establishes a prima facie case of the appropriateness

of the relief sought, "respondent shall have the burden of presenting any . . . response or evidence with respect to the appropriate relief." 40 C.F.R. § 22.24(a). *See In re: Century Oil Acquisition Corp.*, Docket No. RCRA-03-2006-0088, 2007 EPA ALJ LEXIS 22, at *33 (Sept. 17, 2007).

Finally, each matter of controversy is decided by the Presiding Officer upon a preponderance of the evidence. 40 C.F.R. § 22.24(b). *In Re: Euclid of Virginia, Inc.*, RCRA (9006) Appeal No. 06-05 & 06-06, 2008 EPA App. LEXIS 13, at **20-21 (Mar. 11, 2008). As one court explained:

> "Preponderance of evidence" is the degree of relevant evidence which a reasonable mind, considering the record as a whole, might accept as sufficient to support a conclusion that the matter asserted is more likely to be true than not true.

In re: Harmon Electronics, Inc., Docket No. RCRA-VII-91-H-0037, 1994 EPA ALJ LEXIS 25, at *4-5 (Dec. 12, 1994), *rev'd on other grounds, Harmon Industries, Inc. v. Carol M. Browner, et al.*, 19 F. Supp.2d 988 (1998). It is well settled that "[t]o establish a fact by a preponderance of the evidence means to prove that the fact is more likely true than not true." *Fischi v. Armitage*, 128 F.3d 50, 55 (2d Cir. 1997).

The record establishes that EPA has met its burdens of proving that the violations alleged in the Complaint occurred, that the assessment of a penalty of at least $1,579,173 against Respondents is appropriate, and that the issuance of the Compliance Order to Respondents is appropriate. Moreover, the record demonstrates that Respondents have not proven that the material at issue was subject to any regulatory exemption to "waste" or "hazardous waste". Similarly, Respondents have not proven any defenses or affirmative defenses, and no evidence presented by Respondents supports a reduction in the penalty amount or a change in the Compliance Order requested by EPA. Accordingly, this Court should hold Respondents liable

for all ten counts listed in the Complaint, and should assess a civil penalty in the amount of at least $1,579,173 against, and issue a Compliance Order to, Respondents as requested by EPA.

V. ARGUMENT

A. Respondents Are Liable For Operating a Hazardous Waste Storage and Treatment Facility without a RCRA Permit

As discussed below, Respondents are liable for operating a hazardous waste storage and treatment facility without a RCRA Subtitle C permit. First, the Respondents (CIS, Scott Forster, and Eric Lofquist) are each a "person" under the EPA-authorized Ohio Subtitle C program. Second, CIS was a "facility" under the EPA-authorized Ohio Subtitle C program. Third, hazardous wastes were stored and treated at the CIS Facility. Fourth, Respondents did not have a RCRA Subtitle C permit for the hazardous waste management facility. Finally, Respondents Forster and Lofquist are directly liable as operators.

1. Respondents CIS, Scott Forster, and Eric Lofquist Are Each A "Person" Under the EPA-Authorized Ohio Subtitle C Program

Respondents CIS, Scott Forster, and Eric Lofquist are each a "person" under the EPA-authorized Ohio Subtitle C program. *See* April 9, 2012 Joint Stipulations as to Facts, Exhibits and Testimony, at Schedule A, fact 4.

2. CIS Was A "Facility" Under the EPA-Authorized Ohio Subtitle C Program

The relevant section of the EPA-authorized Ohio RCRA Subtitle C program defines "facility" as:

> (a) all contiguous land and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage or disposal operational units (e.g., one or more landfill, surface impoundments, or combinations of them).

OAC § 3745-50-10(A)(39). CX116 at EPA22044.

The evidence establishes that the CIS Facility was a parcel of land containing ten storage tanks, one day tank and one oil spill/rain water collection tank. CX24 at EPA13156. As discussed in Section V.A.3., below, the CIS Facility was used to store or treat materials. In addition, Section V.A.3.a., below, explains the evidence showing that the materials were hazardous wastes. Therefore, the CIS Facility was a "facility" within the meaning of Ohio's authorized Subtitle C program.

3. Hazardous Wastes Were Stored and Treated At the CIS Facility

Materials were shipped to the CIS Facility from JLM Chemicals, Inc. ("JLM") and International Flavors and Fragrances ("IFF"). [redacted] As discussed below, the JLM and IFF wastes were hazardous wastes which were stored and treated at the CIS Facility.

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[2] It is important to note that JLM also sent shipments of K022 to a separate facility owned and operated by Respondents, General Environmental Management LLC ("GEM"), on over one-hundred occasions. CX19 at 12170-12351. [redacted]

a) The JLM and IFF Materials Were "Hazardous Waste"

The authorized RCRA regulations in Ohio define "hazardous waste" at OAC § 3745-51-03. CX160. In order for a material to be classified as a "hazardous waste", it must: (1) be found to be a "waste", OAC § 3745-51-03(A) (CX160); (2) not be exempt from the definition of "waste" under OAC § 3745-51-02; (3) be a listed or characteristic "hazardous waste"; and (4) not be excluded from the definition of "hazardous waste" under OAC § 3745-51-04.

(1) The JLM and IFF Materials Were "Wastes"

In the present case, Respondents assert that the JLM and IFF materials are not regulated because they are not "wastes".[3]

The Ohio Administrative Code defines "waste" as follows:

> A "waste" is any *discarded material* that is not excluded by paragraph (A) of rule 3745-51-04 of the Administrative Code or that is not excluded by variance granted under rules 3745-50-23 and 3745-50-24 of the Administrative Code.

OAC § 3745-51-02(A)(1) (emphasis added). Therefore, in order to be a "waste", each of the materials at issue must be found to be a "discarded material". In turn, the Ohio regulations define "discarded material" as follows:

> A discarded material is any material which is:
> (a) Abandoned, as explained in paragraph (B) of this rule; or
> (b) *Recycled*, as explained in paragraph (C) of this rule; or
> (c) Considered inherently waste-like, as explained in paragraph (D) of this rule; or
> (d) A military munition identified as a waste in rule 3745-266-202 of the Administrative Code.

OAC § 3745-51-02(A)(2) (emphasis added) . Thus, a material may be a "waste" if it is "recycled", but not all recycled material is a "waste."

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[3] The Ohio regulations use the term "waste", while the federal regulations use the term "solid waste". *See* 40 C.F.R. § 261.2.

> Materials are wastes if they are recycled or accumulated, stored, or treated before recycling, as specified in paragraphs (C)(1) to (C)(4) of this rule.
>
> . . . (2) Burning for energy recovery.
>
> (a) Materials noted *with an asterisk in column 2 of table 1* of this rule are wastes when they are:
>
> (i) *Burned for energy recovery*; or
>
> (ii) Used to *produce a fuel, or are otherwise contained in fuels* (in which cases the fuel itself remains a waste).
>
> (b) However, commercial chemical products listed in rule 3745-51-33 of the Administrative Code are not wastes if *they themselves are fuels*.

OAC § 3745-51-02(C).

In the instant case, the record shows that the JLM and IFF materials handled by Respondents were recycled. First, the materials fall within column 2 of Table 1 (Table 1 is set forth in the regulations at OAC § 3745-51-02 [40 C.F.R. § 261.2]):

	[column 1 omitted]	Energy Recovery/Fuel [paragraph (C)(2) of rule 3745-51-02 of the Administrative Code]	[column 3 omitted]	[column 4 omitted]
		(2)		
Spent materials		(*)		
Sludges (listed in rule 3745-51-31 or 3745-51-32 of the Administrative Code)		(*)		
Sludges exhibiting a characteristic of hazardous waste		(*)		
By-products (listed in rule 3745-51-31 or 3745-51-32 of the Administrative Code)		(*)		
Commercial chemical products listed in rule 3745-51-33 of the Administrative Code		(*)		
Scrap Metal other an excluded scrap metal [*See* paragraph (C)(9) of rule 3745-51-01 of the Administrative Code]		(*)		

Note: The terms "spent material," "sludge," "by-product," "scrap metal," and "excluded scrap metal" are defined in rule 3745-51-01 of the Administrative Code.

OAC § 3745-51-02 [40 C.F.R. § 261.2].

With respect to the JLM material, EPA alleges that it falls into Table 1 as a by-product (listed). Tr. 189-223. With respect to the IFF materials, EPA alleges that they fall into Table 1 as by-products (Unitene LE and AGR), spent material (AGR), and sludges (AGR). Tr. 181-87, 187-9, 189-223. Alternatively, they fall into Table 1 as commercial chemical products (LE and AGR). Tr. 224-57.

Second, as explained in Section V.A.3.a.1.b.iv, below, the JLM and IFF materials were in fact burned for energy recovery in the WCI blast furnace or were used to produce a fuel, or were otherwise contained in fuel.

(a) JLM Material

The JLM material is a by-product (listed) under Table 1 because it carries the K022 waste code, which is listed in OAC § 3745-51-32. This has essentially been admitted by Respondents. *See* Respondents' Motions for Accelerated Decision (Mar. 16, 2012) (Respondents challenge the designation of the JLM material as a waste only because Respondents do not believe it was burned for energy recovery). In addition, as explained in Section V.A.3.a.1.b.iv, below, the JLM material was burned for energy recovery in the WCI blast furnace.

(b) IFF Material

The IFF materials also fall under column 2 of Table 1. LE is a by-product. AGR is a by-product, spent material and sludge. In the alternative, LE and AGR are commercial chemical products.

Before analyzing and applying regulatory definitions to the IFF materials, a description of the IFF Augusta facility and its processes will help this Court understand the generation of the materials at issue and provide context for the necessary regulatory determination. IFF is in the business of creating flavors and fragrances used in a variety of consumer products. [redacted]

[redacted], a trademark name for the aromachemical 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2- naphthalenyl)- ethan-1-one, CX191. Iso E Super is sold for use in perfumes and soaps, and is described as having a "smooth, woody, amber" smell. CX143. [redacted]. In most chemical manufacturing processes, washes and distillation are necessary after a reaction, because organic chemical reactions are not exact. Tr. 1247-1248. In any reaction, a range of isomers will form that will satisfy the objective of the manufacturer, and a range of isomers will form that do not satisfy the objective of the manufacturer. Tr. 1247-1248. Manufacturers wash and distill a crude product to isolate the desired product from other isomers that are undesirable in the creation of that product. [redacted]

[redacted]

[4] [redacted]

[redacted]

[redacted] IFF sells several other chemical materials as well. Two of those materials are the subject of this case. [redacted]

(i) Unitene LE

[redacted]

[5] [redacted]

[redacted]

(A) Unitene LE is a By-product Found in Table 1

Unitene LE is a by-product exhibiting a characteristic of hazardous waste (D001). Unitene LE's status as a by-product is evident from a plain reading of the regulatory definition of "by-product". A by-product is

> [A] material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillations column bottoms. By-product does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

OAC § 3745-51-01(C)(3). The regulatory definition of "by-product" provides examples of materials that constitute "by-products", including distillation column bottoms. OAC § 3745-51-01(C)(3). [redacted]

[redacted]

Should this Court decide that it cannot make a determination based on a plain reading of the definition of "by-product" alone, the relevant regulatory factors also demonstrate that Unitene LE is a by-product. In the preamble to 40 C.F.R. §261.2(c)(2), the federal regulation analogous to the Ohio regulatory definition of "waste", three factors were established to help determine if a material is a by-product: (1) whether the material is "generally of a residual character"; (2) whether the material was "produced intentionally or separately"; and (3) whether the material is "unfit for end use without substantial processing." Definition of Solid Waste, 50 Fed. Reg. 614, 625 (Jan. 4, 1985). Unitene LE is a by-product because it not only falls within the plain meaning of the definition of "by-product", but it also satisfies each of these three factors.

1) Unitene LE is "of a residual character"

Unitene LE satisfies the first "by-product" factor because it is of a residual character. "Residue" is defined as "something that remains after a part is taken, separated, or designated or after completion of a process." "Residue". Merriam-Webster Online Dictionary, 2012. hhtp://www.merriam-webster.com (Sep 13, 2012). Similarly, with his experience in the chemical manufacturing industry, David Clark defined "residual" as follows:

> Well, when a product is being produced and refined and purified to meet a particular specification, those materials that are left behind – or removed to ensure . . . that material . . . meets a requirement or specification, those materials left behind are in my mind considered residual.

Tr. 1400-1401. [redacted]

[redacted]

[redacted]

Therefore, Unitene LE is a residue.

The Environmental Health and Safety Manager of IFF, David Shepherd, best explained why Unitene LE is residual in nature when he said:

[redacted] This is not the only time that IFF has indicated that Unitene LE is "the remaining material" or "the material left behind" after a distillation. [redacted] Unitene LE is simply the material that is "left over" in the production of the fragrance product or in the recovery of other useful ingredients. Therefore, Unitene LE is residual.

2) Unitene LE is Not "produced intentionally or separately"

Unitene LE also satisfies the second "by-product" factor that was outlined in the preamble, because it is not produced intentionally or separately. [redacted] Therefore, Unitene LE is not produced separately.

Unitene LE was also not produced intentionally. [redacted]

The purchase of new equipment or the implementation of process changes could indicate that IFF intended to develop a product that differed from these historical waste streams.

[redacted]

Perhaps the most persuasive evidence demonstrating that Unitene LE was not intentionally produced is Unitene LE's price. [redacted]

[redacted]

As for specification, it is true that IFF applied specifications to Unitene LE and tested Unitene LE to assure compliance, but these specifications do not demonstrate IFF's intention to produce Unitene LE because they were not developed per customer demands and did not effectively assure a material of consistent composition. [redacted] Accordingly, David Clark opined [redacted] Therefore, the specifications do not demonstrate IFF's intention to produce Unitene LE.

IFF's lack of intention to produce Unitene LE is further demonstrated by its own characterization of Unitene LE. [redacted][6] Even as late as June 6, 2011, after IFF had received two information requests from EPA, had the opportunity to communicate with Respondents, and knew that EPA was investigating the regulatory status of its Unitene products, [redacted]

3) Unitene LE is "unfit for end use without substantial processing"

Finally, Unitene LE satisfies the third regulatory factor in the definition of "by-product", because Unitene LE is "unfit for end use without substantial processing". [redacted]

[6] *See also* [redacted]

[redacted] CX41 at EPA17104 (Respondents' Answer in which they specifically state that "[a]ctivities conducted by Respondents at the Facility include . . . blending used oil to meet fuel specifications . . . ."); [redacted] These shipments of Unitene could not be used as is. Robert

[7] *See also* CX9 at EPA7235 (an internal memorandum from IFF explaining that Unitene LE is qualified for sale with a water content less than 2% - not less than 1% as WCI requires by contract); CX9 at EPA7190 (a Certificate of Analysis for Unitene LE, which failed to test for the majority of specifications required by WCI. Accordingly, IFF is unable to know whether its "product" satisfies the needs of its end-use customer).

Malecki [redacted]

Based on the foregoing, Unitene LE is residual; not separately or intentionally produced; and unfit for end use without substantial processing. Therefore, Unitene LE is a by-product.

(ii) Unitene AGR

[redacted]

[redacted]

[8] In EPA's February 12, 2010 Request for Information to IFF, EPA requested that IFF provide a

[redacted]

Accordingly, the constituents of Unitene AGR can vary greatly and its exact composition at any given time is uncertain at best.

[redacted]

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list of the raw materials used to produce Unitene AGR. In IFF's March 30, 2010 Information Request Response, IFF [redacted]

(A) Unitene AGR is a By-Product Found in Table 1

The above description of the processes in which each component is generated demonstrates Unitene AGR's regulatory status as a "by-product." Similar to Unitene LE, Unitene AGR's status as a by-product is evident from a plain reading of the regulatory definition of "by-product". A by-product is

> [A] material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillations column bottoms. By-product does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

OAC § 3745-51-01(C)(3). The regulatory definition of "by-product" provides examples of materials that constitute "by-products", including distillation column bottoms. OAC § 3745-51-01(C)(3). [redacted]

[redacted]

Should this Court find that it cannot make a determination based on a plain reading of the definition of "by-product", the relevant regulatory factors also demonstrate that Unitene AGR is a by-product. Unitene AGR exhibits the defining characteristics of a by-product, as outlined in the preamble to 40 C.F.R. §261.2(c)(2). Unitene AGR is "generally of a residual character"; (2) it was not "produced intentionally or separately"; and (3) it is "unfit for end use without substantial processing." *See* Definition of Solid Waste, 50 Fed. Reg. at 625. Because Unitene AGR satisfies each of the preamble's three factors, the material is a by-product.

1) Unitene AGR is "of a residual character"

First, Unitene AGR is of a residual character. As explained above, a material is residual if it is the segment that remains after the useful parts have been taken away or separated. *See* Tr. 1400-1401; Merriam-Webster Online Dictionary, 2012. http://www.merriam-webster.com (Sep. 13, 2012). [redacted]

[redacted]

Therefore, the components are merely the remaining or left over material, and collectively, Unitene AGR is residual in nature.

2) Unitene AGR is Not "produced intentionally or separately"

Unitene AGR also satisfies the second "by-product" factor, because it is not produced intentionally or separately. [redacted] Therefore, Unitene AGR is not produced separately.

Unitene AGR is also not produced intentionally. [redacted]

[9] [redacted]

[redacted]

In the February 12, 2010 Information Request from EPA to IFF, EPA requested "all records related to the Unitene AGR (or waste stream from the same generation point identified by a different name) sent offsite as hazardous waste in the past 5 years." CX10 at EPA7916. In response, IFF [redacted] RCRA does not allow IFF to simply decide when Unitene AGR is a hazardous waste and when it is a product.

[redacted] David Shepherd explained:

[redacted]

[10] IFF's continued handling of Unitene AGR as a hazardous waste even after it had been sold is further evidenced by IFF's 2007 Hazardous Waste Reduction Plan. CX186. Although that plan was submitted almost two years after Unitene AGR was first sold, it indicates that the materials in tank 700V210 were disposed as hazardous waste. *Id.* at 026496.

[redacted] Therefore, long after the violations at issue began and IFF had the opportunity to develop a market demand for Unitene, IFF's handling of Unitene AGR still indicates that it was produced unintentionally.

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[11] EPA converted the price of $0.03 per kilogram to $0.10 per gallon by assuming that Unitene AGR had a relative density of 0.9073gm/ml. 0.9073gm/ml is the midpoint of Unitene AGR's documented relative densities. *See* RX99.

[12] EPA converted the price of $0.07 per pound to $0.53 per gallon by assuming that Unitene AGR had a relative density of 0.9073gm/ml. 0.9073gm/ml is the midpoint of Unitene AGR's documented relative densities. *See* RX99.

Also, the evidence demonstrates that the technical specifications that IFF applied to Unitene AGR are not indicative of IFF's intention to produce the material; rather, the specifications were simply built to accommodate whatever material may end up in the Unitene AGR stream. [redacted] David Clark best explained the consequences of this practice:

[redacted]

Overall, IFF's specifications indicate that they were not tailored to ensure product

quality; rather, they were written down to simply accommodate the material that was already being generated.

Finally, as explained in relation to Unitene LE, above, IFF's own characterization of Unitene AGR establishes that it was not intentionally produced. Much like Unitene LE, Unitene AGR was, and continues to be, consistently described as a by-product by IFF and waste brokers.

[redacted]

[13] [redacted]

3) Unitene AGR is "unfit for end use without substantial processing"

Unitene AGR also satisfies the third "by-product" factor because it is unfit for end use without substantial processing. As explained in detail above, [redacted] Therefore, CIS was unable to sell the material to the blast furnace "as-is." [redacted] *See* CX41 at EPA17104 (Respondents' Answer in which they state that "[a]ctivites conducted by Respondents at the Facility include . . . blending used oil to meet fuel specification . . . ."). [redacted]

[14] *See also* CX26 at EPA15397 (explaining that the employees who sampled incoming trucks through December 2005 at CIS *never* tested a material that satisfied all of the WCI specifications); CX9 at EPA7235 (an IFF internal memorandum explaining that Unitene AGR is qualified for sale with a water content less than 2% - not less than 1% as WCI requires by contract); CX9 at EPA7243 (an analysis report provided by CSRA Analytical Laboratories for IFF which shows that in each of three separate tests, Unitene AGR failed to meet the agreed BTU requirements).

[redacted]

Based on the foregoing, Unitene AGR is residual; not separately or intentionally produced; and unfit for end use without substantial processing. Therefore, Unitene AGR is a by-product.

(B) Unitene AGR is a Spent Material Found in Table 1

[redacted] Therefore, Unitene AGR is a spent material found in Table 1. Tr. 175.

(C) Unitene AGR is a Sludge Found in Table 1

[redacted]

[15] Despite CIS' blending processes, WCI representatives contacted Respondent Forster on several occasions with concerns that the CIS fuel differed considerably from WCI's specifications. Each time he was contacted, Respondent Forster assured WCI that CIS would satisfy their requirements. CX26 at EPA15385-15391.

[redacted] As such, Unitene AGR is a sludge "exhibiting a characteristic of hazardous waste", found in Table 1. Tr. 176.

(iii) Even if Deemed a Product, the IFF Materials are Commercial Chemical Products

Should this Court find that Unitene LE and Unitene AGR are either co-products or products (and not by-products), then this Court must also conclude that these two materials are commercial chemical products which are wastes. Tr. 177-78, 224, 244-45. Pursuant to OAC § 3745-51-02(C)(2), commercial chemical products listed in 3745-51-33 are wastes when burned for energy recovery.[16] Furthermore, OAC § 3745-51-33 explains that commercial chemical products are hazardous wastes "when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel."

Unitene LE and Unitene AGR are not listed in OAC § 3745-51-33.[17] However, in the technical corrections to the equivalent federal rule, EPA clarified the regulatory status of commercial chemical products that are not listed but exhibit one or more of the hazardous waste characteristics (i.e., ignitability, corrosivity, reactivity, and extraction procedure (EP) toxicity).

> Although we do not address non-listed commercial chemical products in the rules, their status would be the same as those that are listed in § 261.33 – That is, they are not considered wastes when recycled except when they are recycled in ways that differ from their normal manner of use.

Hazardous Waste Management System; Definition of Solid Waste; Corrections, 50 Fed. Reg. 14,216, 14,219 (Apr. 11, 1985). Therefore, non-listed but characteristic commercial chemical

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[16] *See also* 40 C.F.R § 261.2(c)(2)(A) (the federal equivalent to the Ohio regulation).

[17] *See also* 40 C.F.R. § 261.33 (the federal equivalent to the Ohio list of commercial chemical products).

products are considered solid wastes only when "recycled in ways that differ from their normal manner of use." *Id.* A material is recycled in ways that differ from its normal manner of use when it is burned for energy recovery. *Id.* As explained in Section V.A.3.a.3, Unitene LE and Unitene AGR both exhibit a characteristic of hazardous waste, specifically ignitability. Therefore, the Unitene materials constitute non-listed commercial chemical products. Also, as explained in Section V.A.3.a.1.b.iv, Unitene LE and Unitene AGR were burned for energy recovery in the WCI Steel blast furnace. Accordingly, if Unitene LE and Unitene AGR are not wastes by virtue of being by-products burned for energy recovery, both Unitenes are non-listed commercial chemical products burned for energy. Therefore, Unitene LE and Unitene AGR still fall under column 2 of Table 1 of OAC § 3745-51-02.

When looking at a commercial chemical product and its status as a "waste" under OAC § 3745-51-02, consideration must also be given to OAC § 3745-51-02(C)(2)(b), which provides that "commercial chemical products listed in rule 3745-51-33 of the Administrative Code are not wastes if they are themselves fuels." OAC § 3745-51-02(C)(2). While Unitene LE and Unitene AGR are able to provide energy through combustion, they are not themselves fuels.[18] As stated

[18] In its May 31, 2012 Order on Motions for Accelerated Decision, this Court noted that EPA is forced into the awkward position "of arguing that Unitene is, by its very nature, used in a blast furnace in order to recover energy but it is also unlike any other type of recognized 'fuel' and therefore burning it is not a normal use." Order at 30. EPA respectfully asserts that this position is not awkward as this Court suggested. The fact that a material is combustible is not conclusive in determining that the material is a recognized fuel. For example, Dr. Sass explained that lemon juice is combustible, Tr. 1637-1638, but no one would assert earnestly that lemon juice is a recognized fuel. More so, no one would argue that burning for energy recovery is a lemon's

above, a commercial chemical product is a waste when recycled in a way that differs from its normal manner of use. Hazardous Waste Management System; Definition of Solid Waste; Corrections, 50 Fed. Reg. at 14,219. Burning for energy recovery is not Unitene's normal manner of use; therefore, the exemption is inapplicable. The record demonstrates that Unitene's only intended use was as a solvent. [redacted]

Therefore, Unitene LE and Unitene AGR are not fuels themselves.

In this case, further consideration must be given to the fact that Unitene is derived from turpentine. However, Unitene is not turpentine. [redacted]

"normal use". Much like Dr. Sass' lemon, Unitene is combustible but burning for energy recovery is not its normal use. Rather, Unitene was used as a fuel *in this instance only*. Specifically, CIS used the material to produce a fuel under OAC § 3745-51-02(C)(2)(a)(ii) [40 C.F.R. § 261.2(c)(2)(i)(B)]. Tr. 270-324. Further, WCI Steel used the material as a fuel from which energy was recovered in the blast furnace under OAC § 3745-51-02(C)(2)(a)(i) [40 C.F.R. § 261.2(c)(2)(i)(B)]. Tr. 257-59. *See also* Section 1.A.3.iv, below.

[redacted] Therefore, Unitene's connection to turpentine is significantly remote. [redacted] Therefore, Unitene cannot be equated to turpentine for purposes of concluding that Unitene is a fuel itself.

In addition, turpentine is not a "fuel" under OAC § 3745-51-02(C)(2)(b). There is some evidence that turpentine was used, generally at paper production facilities, as a commercial fuel as early as the 1700s. *See* RX130 at p12. However, burning for energy recovery is not turpentine's "normal use", as the regulations require to satisfy the exemption. *See* Hazardous Waste Management System; Definition of Solid Waste Corrections, 50 Fed. Reg. at 14,219. During his cross examination, Respondents' expert on terpenes, Dr. Bruce Sass, admitted that turpentine is "no longer a commercial fuel", equating its antiquity to that of buggy whips. Tr. 1698.

Additionally, EPA has commented on whether burning for energy recovery is turpentine's "normal use". In the preamble to the final rule, titled RCRA Comparable Fuels Exclusion, EPA noted:

> While EPA is interested in establishing a broad-based benchmark of liquid fuels, EPA disagrees that turpentine should be included in the benchmark specification. Turpentine is not a widely used commercial fuel. There are no [American Society of Testing Materials (ASTM)] standards for turpentine fuel which specify the minimum properties which must be met for the product to be considered a

> commercial fuel. By contrast there are ASTM specifications for each of the petroleum fossil fuels EPA is using as a benchmark.

Hazardous Waste Combusters; Revised Standards; Final Rule – Part 1: RCRA Comparable Fuel Exclusion, 63 Fed. Reg. 33,782, 33,785 (June 19, 1998). David Clark helped to explain the meaning and significance of ASTM standards for fuels. Tr. 1457.

> It is a very well-known, well-established standards development organization that establishes parameters for fuels and other chemicals as well as the test methods that you would use to obtain data in support of those specifications and any other.
>
> . . . any time you're going to use a fuel in a combustion device, it is very important to know that that material will perform correctly and most importantly will be safe and the applications and standards ensure a certain level of risk assessment and safety evaluation has gone into the use of that fuel; and without those particular evaluations and standards, I will be hesitant to use it.

Tr. 1457, 1460. Because turpentine does not have the quality and safety assurances that ASTM standards provide, burning it for energy recovery is not a safe use, let alone a "normal use". Therefore, turpentine is not a fuel itself. The Unitene materials, as a turpentine derivative, are also not fuels themselves.

(iv) The IFF Materials Were Burned for Energy Recovery

In this case, EPA alleges that the IFF and JLM materials were burned for energy recovery. OAC § 3745-51-02(C)(2). Tr. 257-69. The facts, as established at hearing, support the conclusion that when the IFF and JLM materials were combusted in WCI's iron-making blast furnace, those materials were burned for energy recovery. Therefore, the IFF and JLM materials constitute a waste in accordance with OAC § 3745-51-02(C)(1)-(4) and OAC § 3745-51-02(C)(2)(a)-(b). Even if this Court concludes that the IFF materials provided an ingredient in making iron, because the IFF materials provided *both* an ingredient *and* energy, the materials remain RCRA Subtitle C regulated wastes.

Before this Court is able to make a determination on whether the materials at issue were burned for energy recovery, it is important to understand the role of these materials in blast furnace operation. The trial record contains extensive evidence regarding how a blast furnace generally works. Blast furnaces convert iron ore to liquid iron. Tr. 1068-69; *see* CX86 at EPA18464. To begin the process, raw materials, primarily coke, limestone, and iron ore (Fe_2O_3), are weighed according to a certain recipe and loaded into the blast furnace. Tr. 1073-1076; 2370-77. The conveyor belt carries the raw materials to the top of the blast furnace where they are then fed into the blast furnace column, a large shaft reactor. Tr. 1073-1076; 2370-77; Burning of Waste Fuel and Used Oil Fuel in Boilers and Industrial Furnaces, 50 Fed. Reg. 49164, 49171 (Nov. 29, 1985). Once inside, these raw materials descend through zones of the blast furnace column and a different reaction occurs within each zone. Tr. 1073-1076; 2370-77.

The temperature of the raw materials is raised in the preheating zone. Tr. 1079. When the raw materials reach the appropriate temperature, reactions begin and carbon monoxide (CO) and hydrogen (H_2), which are "reducing gases" released by the burning coke and injectants, convert iron ore (Fe_2O_3) to iron oxide (FeO) and, ultimately, then to iron (Fe). Tr. 1077-1084; 2370-77; 2541-2542. These processes are fueled by a large volume of air preheated to 2000° F, which is injected near the bottom of the column, in the tuyere zone. Tr. 1074-75; 1080-1081; 2378; 2384-2388; Burning of Waste Fuel and Used Oil Fuel in Boilers and Industrial Furnaces, 50 Fed. Reg. at 49,172. The hot air blast burns the coke to produce heat energy and the reducing gases (CO and H_2) needed to drive the reactions that convert iron ore into iron. Tr. 1074-76; 1079-80; 1082-84.

In the tuyere zone of most blast furnaces, oil, natural gas, or powdered coal (injectants) is injected into the column along with the hot air. Tr. 1075-76; 1080-1086; 1091-92; 2388-90. Just

like coke, these injectants consist of hydrocarbons. Tr. 1080-81; 2395-2400. The injectants serve two functions. First, they are combusted to provide energy, which replaces the energy of the coke it displaces. Tr. 1080-1084; 1096-98; 2389-90; 2489-90. This energy is necessary to raise the temperature of the materials in the furnace, as well as fuel the chemical reactions that reduce iron ore to iron. *Id.* Second, the injectants provide chemical energy in the form of reducing gases (CO and H_2) to the blast furnace column. Tr. 1080-1084; 1096-1100; 1132-1133; 1147-1149; 1153-1156. By providing reducing gases, the injectants lower the amount of energy required to remove oxygen from iron ore (Fe2O3) and FeO, and create iron. Tr. 1080-1084.

Essentially, these injectants serve several of the same functions as, and are used as a supplement for coke. Tr. 1080-1084; 1096-98; 1108; 2389-90; 2489-90. Blast furnace operators seek coke supplements because coke has become increasingly expensive since the 1960s and furnace productivity is increased by increasing the iron ore to coke volume ratio. Tr. 1086-87; 1108; 2389-90; Burning of Waste Fuel and Used Oil Fuel in Boilers and Industrial Furnaces, 50 Fed. Reg. at 49,172. By using more injectants, blast furnace operators are able to reduce the amount of coke added to the column. *Id.*

In the final stage of the iron-making process, materials descend to the base of the blast furnace column. Here, liquid iron is tapped out of the furnace and the liquid iron separated from iron slag -- the by-product of iron production. Tr. 1080; 1190; 2416-19. At most blast foundries, the liquid iron is then converted into steel. In the steel-making process, virtually all of the 4-5% carbon in the iron is combusted as an energy source and is removed from the steel. Tr. 1070-71; 2502-03.

This Court has heard extensive testimony on this issue, and the mass weight of the evidence supports the conclusion that the IFF and JLM materials were burned for energy recovery. The following analysis explains how in detail.

(A) All Experts Agree That Injectants Produce Energy in Blast Furnaces

In analyzing an issue that is the subject of several experts' opinions, it is instructive to first identify the concepts on which competing experts agree. This exercise is especially helpful in this case, because Respondents' expert witnesses, Frederick Rorick and Dr. Joseph Poveromo, agree with EPA's blast furnace expert, Professor Fruehan, on several fundamental and contentious issues. First, all three expert witnesses agreed that oil injected and combusted (or burned[19]) in an iron-making blast furnace produces chemical energy that is used to convert iron ore into iron. Tr. 1067-1072; 1079-1084; 1092-1094; 1097-98; 1098-1103 and 1122-1123; 1147-1149; 1155-1156; 1192; 2489-90; 2483-85; 2554; 2571-2572. This concept alone demonstrates that the IFF and JLM materials were burned for energy recovery. Second, both Professor Fruehan and Respondents' Dr. Joseph Poveromo agreed that, when injectants are combusted (or burned) in a blast furnace, at least some sensible heat energy is produced. Tr. 1082-1084; 1091-1092; 1133; 1148-49; 1155-56; 1177-1183; 1191; 2570-2571; 2573. Third, Professor Fruehan and Respondents' Frederick Rorick both agreed that any carbon[20] entering the

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[19] "Burning" is not a scientific term but is related to combustion in that burning is the "conversion of an element from its elemental state to an oxidized state or one oxidized state to a more oxidized state." Tr. 1152-1153. Both injectants and coke are combusted in the raceway of a blast furnace. Tr. 1151; 1153-1155. *See also* Tr. 2554.

[20] Professor Fruehan and Frederick Rorick agreed that iron could be produced from iron oxide

iron in the iron-making process would be a very small percentage of the final iron product (4%-5%). Tr. 1068-1071; 1094-1095; 1192; 2383; 2406; 2437-2438; 2463-2464; 2482. They also agree that the carbon in the iron comes from coke used in the iron making process as well as from the injectants. Tr. 1095-1096; 1148; 1168; 2411-2414; 2435; 2465-2468; 2485. And finally, Professor Fruehan and Frederick Rorick agree that carbon in the iron is later removed from the iron through further chemical energy reactions resulting in the final product, steel, with a carbon content of .2% - .5%. Tr. 1069-1071; 1092-1097; 1137-38; 1143-44; 1148; 2381-84; 2399-2401; 2406-09; 2411-2414; 2419-2423; 2434-35; 2438-39; 2463-64; 2465-69; 2481; 2486-87; 2493; 2495-2497; 2501-2503; 2504-2505.

In sum, the trial record in this case establishes that oil injected and combusted (or burned) in an iron making blast furnace produces heat energy and chemical energy that is used to convert iron ore into iron. Under the regulatory scheme, a recycled material will be determined to be a waste if it is recycled by being burned for energy recovery. In this regard, the following exchange between this Court and Professor Fruehan is instructive:

> JUDGE BIRO: Can you tell me how you described the distinction between a material and energy in terms of iron making?
>
> THE WITNESS: A material and energy. Okay. Let me try my best here. To make iron, you need certain materials. You need iron oxide in the form of ore and you most likely need a reductant, something that will pick the oxygen off the ore, and you also need energy because to make iron oxide into iron requires whatever I have up there in terms of energy, 270 kilojoules, so I've got to supply that enthalpy of that reaction and that is supplied by the carbon as well so the carbon and the CO are doing two things: They're a reductant; they're stripping off the oxygen. If I had a material that would strip off the oxygen but not supply energy, the blast furnace wouldn't work. It's doing both.

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without using carbon. Tr. 1112-1116; 1131; 1156-58; 2468-692475-76.

So the oxidation of the carbon is supplying the energy both in the form of heat energy and in terms of chemical energy so they can be both materials and energy sources. Not energy but an energy source.

JUDGE BIRO: Okay. In our legal world they have used the term to "recover energy."

THE WITNESS: Yes.

JUDGE BIRO: Energy is a scientific term. Is recover or recovery a scientific term?

THE WITNESS: I'm interpreting the term "recovering energy" meaning that when you have this material, the oil and you use it in a process, you are getting its energy value out of it. That's the way I interpret it, that the energy value of that oil or that natural gas is being used in the process.

JUDGE BIRO: You indicated that "burning" is not a scientific term that you use.

THE WITNESS: It's not one I use. I'm not saying it isn't a scientific term but I prefer to use the word oxidation and reduction and those to me are more scientific than burning.

JUDGE BIRO: When you inject the oil into a blast furnace, could you call that "burning for energy recovery"?

THE WITNESS: Yes.

Tr. 1190-92.

(B) Production of Energy by Injectant in Blast Furnace is Consistent With EPA Final Rule Regarding Burning in Boilers and Industrial Furnaces

Professor Fruehan's conclusion is consistent with the preamble to EPA's 1985 final rule regarding the burning of waste fuels. *See* Burning of Waste Fuel and Used Oil Fuel in Boilers and Industrial Furnaces, 50 Fed. Reg. at 49,172. The preamble explains that fuel injectants "first behave as *bona fide* fuels by combusting to (ideally) carbon dioxide and water." *Id.* (emphasis in original). After the injectants are combusted, they act as ingredients to the furnace reactions

only, by providing reducing gases (CO and H_2), which fuel the reducing reactions. *Id.* The excess reducing gases, which were not used to reduce iron ore, are collected with the blast furnace "off gas." These off gases are combusted outside the furnace to supply energy to preheat air that is injected into the furnace through the tuyeres. *Id.* at 49172. In total, fuel injectants provide approximately 22% of the heat input to the blast furnace. *Id.* (citing 13 Kirk-Othmer Encyclopedia of Chemical Technology 742 (1981)). Therefore, as explained above, injectants serve a dual purpose of providing substantial energy and reductants. *Id.*

Significantly, Professor Fruehan confirmed the on-going relevance of U.S. EPA's 1985 analysis of blast furnace operations, in the following exchange:

> Q. Do you have a view regarding the current relevance of EPA's 1985 understanding -- well, let's talk about first what is that Federal Register notice talking about? Let's start there. What's the Federal Register notice talking about?
>
> A. It's talking about the use of some previous case where they were using a similar product in the blast furnace.
>
> MS. EIBER: I'm going to object, your Honor, to the characterization of my clients' products as similar to Cadence 312.
>
> BY MR. CAHN:
>
> Q. Professor, generally what they were talking about?
>
> A. They were talking about a waste product that they were using in the blast furnace.
>
> Q. How were they using it?
>
> A. They were using it as an injectant to reduce the coke rate.
>
> Q. And did EPA publish in the Federal Register a view about what's happening in a blast furnace?
>
> A. Yes.
>
> Q. What did it talk about there?

A. Let me, may I look?

Q. Yes, please.

A. Because there's a lot of words here.

Q. Talking about the use of injectants?

A. So we're talking about Page 171, 49171?

Q. Yes. Starting there.

A. They say the Cadence product is burned partially for energy recovery. Partially. I would say it was mostly energy recovery, and there's, if you go to the next page, the general description of the blast furnace and what is going on in the blast furnace and what happens to these injected materials, I believe is reasonably accurate.

Q. So do you have a view about the current relevance of EPA's 1985 understanding of blast furnace operations and the use of injectants?

A. I think it's a reasonably good description of what's going on.

Q. And it's current?

A. Yes. They talk about the energy coming in from the initial combustion of the material. They talk about the CO and hydrogen and the chemical energy that it carries and they talk about the energy in the off-gas.

Q. Is that consistent with Mr. Rorick's view?

A. Is it consistent with Mr. Rorick's view? Mr. Rorick doesn't consider the chemical energy. He just considers the thermal energy.

Tr. 1128-1130.

As an aside, Dr. Joseph Poveromo agreed that he, too, was primarily discussing the sensible heat provided by injectants, and not chemical energy (although he agreed the reducing gases provided reductants to the process). Tr. 2572.

(C) Production of Energy by Injectant in Blast Furnace is Consistent With Prior EPA K022 Determinations

EPA has already determined that K022, when used in a blast furnace, constitutes a fuel. Because the JLM material constituted K022 waste, these determinations are instructive. In a letter to Ernie Willis of IWM on December 9, 2005, Margaret Guerriero of EPA Region 5's Waste, Pesticides and Toxics Division responded to a request that Ohio EPA and U.S. EPA determine whether the use of K022 as a coke supplement in a blast furnace requires it to be handled as a hazardous waste. *See* CX47. Director Guerriero explained that

> ...even if recycling of the solid waste involves use or reuse, but it is burned for energy recovery, used to produce a fuel, or contained in fuels, it remains a solid waste. The common use of the term "fuel" is any material used to produce heat or power by burning. A blast furnace receives some of its heat energy from the combustion of the coke that is charged into the furnace, as well as the combustion of material injected in the tuyeres. Combustion of the coke provides heat needed to melt the iron-bearing material in the furnace, and any substitute for coke is an alternate heat source or fuel. Therefore, the use of K022 in the blast furnace as a substitute for coke makes it a fuel.

CX47.

Director Guerriero's conclusion that K022 wastes are a fuel when burned in a blast furnace is consistent with EPA's conclusion regarding Cadence Product 312 (Cadence), discussed in the preamble to the Boiler and Industrial Furnace regulations. Burning of Waste Fuel and Used Oil Fuel in Boilers and Industrial Furnaces, 50 Fed. Reg. at 49,171-74. Cadence is a blend of hazardous still bottoms and other hydrocarbon-based waste that was patented for use as an injectant in blast furnaces. *Id.* at 49,171. Because Cadence has a heating value of 10,500 to 14,000 BTU/lb, EPA determined that Cadence was burned for energy recovery. *Id.* at 49,173-74. Furthermore, EPA explained:

> EPA does not believe that the question of jurisdiction over the Cadence product (or other similar waste-derived materials) need turn narrowly on the question of

> whether it is burned partially for energy recovery . . . These still bottoms are not similar to raw materials customarily used in the iron-making process (i.e., toxic chlorinated solvents are not a typical feed or energy source to the iron-making process). The recycling practice, as well as prior transportation and storage has the potential to cause substantial harm to human health and the environment if conducted improperly.

Id.

Likewise, the JLM and IFF materials are not similar to the raw materials customarily used in the iron-making process. Moreover, the heating value of Cadence, 10,500 to 14,000 BTU/lb is far less than the heating value of CIS' blended fuels. *See* CX24 at EPA 13153. Therefore, the CIS product was used as fuel in the WCI blast furnace.

In applying this EPA analysis to this case, it is important to note that even if the constitution of K022 and Cadence differs slightly from that of the IFF materials, the analysis of whether the material was burned for energy recovery remains the same. Regardless of its characteristics, the IFF and JLM materials, like K022 and Cadence, serve as a supplement for coke in the blast furnace. Therefore, if Respondents agree that coke provides energy, the material at issue also provides energy. Any supplement for coke is an alternate heat source or fuel, which is burned for energy recovery.

(D) Production of Energy by Injectant in Blast Furnace is Consistent With the Boiler and Industrial Furnace Regulations

EPA's regulations for hazardous waste burned in boilers and industrial furnaces are also instructive in determining when a hazardous waste is a fuel. 40 C.F.R. Part 266 Subpart H. The regulations provide that hazardous waste with a heating value of 5,000 BTU/lb or more is considered burned as a fuel – and not considered burned as an ingredient. 40 C.F.R. § 266.103(a)(5)(ii)(B). While no current regulation uses the 5,000 BTU/lb threshold to determine

whether a secondary material satisfies the definition of solid waste, the threshold may serve as a guideline to this Court. The Unitene materials generally had a BTU value above 17,000 BTU/lb, *see, e.g.*, CX9 at EPA7243, and the WCI Steel fuel agreement demanded fuel with a BTU value that was even higher, CX24 at EPA13153. Thus, the blended fuels supplied to WCI Steel had a BTU value far greater than 5,000 BTU/lb and were burned for their energy value. Accordingly, pursuant to the Boiler and Industrial Furnace regulations, the CIS oil blend is a fuel.

(E) Respondents Agree That Their Oil Blend is a Fuel

Respondents agree that their used oil and hazardous waste blend is a "fuel," at least when it suits them. Tr. 91, 95, 270-324. Respondents claimed alternative fuel mixture tax credits of $10 million for the years 2007-2009. CX72 at EPA18047. To qualify for the alternative fuel mixture tax credit, Respondents must have registered as an alternative fueler and sold or used the alternative fuel mixture. The IRS regulations provide that an alternative fueler means a person that:

> (1) Is an alternative fueler (unmixed fuel); or
> (2) Produces alternative fuel mixtures for sale or use in its trade or business.

IRS Notice 2006-92. The IRS defines an "alternative fuel mixture" as "a mixture of alternative fuel and taxable fuel that contains at least 0.1 percent (by volume) of taxable fuel." *Id.*

Further, the IRS defines use as a fuel (relating to alternative fuel mixtures):

> (1) A mixture is <u>used as a fuel</u> *when it is consumed in the production of energy. Thus, for example, a mixture is used as a fuel when it is consumed in an internal combustion engine to power a vehicle or in a furnace to produce heat.* A mixture that is destroyed in a fire or other casualty loss is not used as a fuel.
> (2) A mixture producer sells a mixture <u>for use as a fuel</u> if the producer has reason to believe that the mixture will be used as a fuel either by the person buying the mixture from the producer or by any later buyer of the mixture.

IRS Notice 2006-92 (emphasis added).

Remarkably, Respondents claimed that they produce for sale an alternative fuel mixture that was consumed in a furnace for the production of energy in order to obtain the beneficial tax treatment that they wanted. For purposes of this enforcement matter, however, Respondents, with a straight face, claim that their blend of used oil and hazardous waste was not "burned for energy recovery" in a blast furnace.

Respondents also refer to their oil blend as a fuel throughout their relationship with their sole customer, WCI. On January 1, 2005, Respondent CIS and WCI Steel entered into the "Product Supply and Operation Agreement." *See* CX24. It was the agreement's explicit intent "to have CIS own facilities on property leased from WCI Steel *for the sole purpose of supplying Fuel Oil to WCI Blast Furnace* as a fuel alternative to coke and or natural gas." CX24 at EPA13139 (emphasis added). Through this document, Respondent CIS agreed to "provide WCI with Fuel Oil conforming to specifications . . . at volumes up to 1,400,000 gallons per month, and WCI agrees to purchase solely from CIS . . . its Fuel Oil." *Id.* at EPA13141. "Fuel Oil" is defined by the agreement to mean "[r]ecycled oil complying to specifications outlined in Exhibit A." *Id.* at EPA13139. As explained previously, Exhibit A of this agreement contained detailed specifications for the fuel oil purchased. These specifications included a requirement that the fuel oil maintain a BTU value between 135,000 and 150,000 BTU/gal. *Id.* In fact, BTUs served as the basis for the pricing formula that Respondent CIS and WCI Steel agreed upon, thus indicating that the BTU value of blended fuels was the specification most important to WCI Steel. CX26 at EPA15376; *see also* CX26 at EPA15385 (WCI expressed concern when CIS's blended fuels failed to meet the agreed specifications. WCI's "main concern" was that the blended fuels' BTU value dropped below the specification).

Respondents themselves describe the materials sent to WCI as a fuel. *See, e.g.*, CX5 at EPA6063 ("[t]he activities conducted by CIS include: . . . Blending used oil to meet fuel specifications . . . Marketing on-specification used oil fuel to a consumer); CX5 at EPA6094 (table explaining that CIS's tanks contain "fuel oil"); CX5 at EPA6154 (application to the Warren Township Fire Department to install eleven tanks "for the storage of fuel oil Class III B . . ."); CX72 at EPA18047(CIS claimed an "alternative fuels mixture credit" from the Internal Revenue Service for the years 2007, 2008, and 2009 in the amounts of $4,305,510, $4,391,277, and $1,315,355, respectively).

Under the foregoing analysis, CIS's oil fuel, blended with hazardous waste from IFF, was burned in WCI Steel's furnace for energy recovery within the meaning of OAC § 3745-51-02(C)(2)(a) and consistent with this description of blast furnace operations. At the WCI Steel blast furnace, CIS' blended hazardous waste fuel was injected into the blast furnace through an "Oil Injection System," which was owned and operated by Respondents. CX24 at EPA13130. The blended hazardous waste fuel of Respondent CIS served as an injectant in the tuyere zone, and therefore a coke supplement, as described above. Because it was used as an injectant, the blended fuel essentially served two functions. First, just like any injectant, the blended fuel was combusted upon entering the column and provided heat energy, which replaces heat energy of the displaced coke. Heat is required to fuel the reactions that reduce iron ore. Second, the blended fuel provided the reducing gases (CO and H_2) necessary to remove the oxygen from iron ore (Fe_2O_3) and FeO. By supplying reducing gases, the blended hazardous waste fuel also lowered the amount of energy required for the reduction reactions. Therefore, Respondent CIS' blended hazardous waste fuel, including the IFF hazardous waste, was burned to recovery energy both through combustion and through the provision of reductants.

(F) Even if the Court Finds That the IFF and JLM Materials Are Ingredients, This Does Not Affect Their Regulatory Status

Should this Court conclude that the CIS' injectants provide an ingredient (carbon) in the final product, than Respondents' still are not relieved of liability. The IFF and JLM materials remain RCRA regulated wastes, because the IFF materials provided both an ingredient and energy. As explained in the preamble to the definition of solid waste, when an injectant provides materials as well as energy when burned, it remains regulated as a waste.

> [M]uch of the Agency's on-going activity addresses burning of hazardous wastes for energy recovery in boilers or industrial furnaces, and explained our definitions of these terms, as well as our definition of incinerator. We discuss here which secondary materials are wastes when burned as fuels, and how to distinguish among burning for energy recovery, burning for material recovery, and burning for destruction, as well as the regulatory implications of falling into each of these three categories. We also discuss our future regulatory plans, and finally address how we are regulating storage that occurs before burning hazardous waste for energy recovery.
>
> ***
>
> [I]ndustrial furnaces are used as integral components of manufacturing processes to recover materials. Thus, regulation under RCRA of actual burning in industrial furnaces could, in some circumstances, represent an intrusion into a normal production process, particularly if the material being recovered is the same as the material the furnace ordinarily produces. On the other hand, when an industrial furnace is used for material recovery and the secondary material being burned is: (a) Not ordinarily associated with the furnace (for example, organic still bottoms), (b) different in composition from materials ordinarily burned in the unit (as when the secondary material contains Appendix VIII hazardous constituents different from, or in concentrations in excess of those in materials ordinarily burned in the furnace) or, (c) burned for a purpose ancillary to the chief function of the furnace, we think that RCRA jurisdiction over the burning exists. [...]
>
> *When industrial furnaces burn for energy recovery, regulation of the burning would not constitute an impermissible intrusion into the production process because burning for energy recovery is an activity that is not central to the usual function of an industrial furnace.* See H.R. Rep. 98-198 at 40 (industrial furnaces burning for energy recovery are to be regulated under the waste-as-fuel provisions of H.R. 2867). *We therefore are asserting RCRA jurisdiction when an industrial*

> *furnace burns hazardous secondary materials— i.e., hazardous wastes—for energy recovery.*
>
> *The regulations would also apply when an industrial furnace burns the same secondary material for both energy and material recovery. Examples are blast furnaces that burn organic wastes to recover both energy and carbon values*, or cement kilns that burn chlorinated wastes as a source of energy and chlorine. (Indeed, energy recovery from burning in kilns is automatic, so that all burning of hazardous wastes in kilns is within the Agency's RCRA jurisdiction.) *These activities are not so integrally tied to the production nature of the furnace as to raise questions about the Agency's jurisdiction.* In addition, EPA believes that both the existing statute and the new legislation express a strong mandate to take a broad view of what constitutes hazardous waste when hazardous secondary materials are burned for energy recovery, and to regulate as necessary to protect human health and the environment. See e.g., 48 FR 14502 (statutory definitions stating that secondary materials burned for energy recovery are solid wastes); H.R. Rep. 94-1491, supra at 4 (Congress' concern in promulgating Subtitle C was to "eliminat(e) the last remaining loophole in environmental law", not to create new loopholes); H.R. Rep. 98-198, supra at 41-42; S. Rep. No. 98-284 at 36.

Definition of Solid Waste, 50 Fed. Reg. 614, at 629, 630-31 (Jan. 4, 1985) (emphasis added). As this passage makes clear, EPA contemplated regulating a waste like Respondents' hazardous waste blend when the waste is burned in a blast furnace (like WCI Steel's) to recover energy and material. Thus, a hazardous waste burned for energy recovery (here, both heat energy and chemical energy) falls within the definition of waste even if some material recovery (like recovery of carbon value) occurs. Therefore, even accepting that the IFF and JLM materials provided an "ingredient" from which material was "recovered" for the purpose of iron making, their additive material still falls within the definition of "waste," because the "regulations would also apply when an industrial furnace burns the same secondary material for both energy and material recovery." *Id.* at 630.

For all of the foregoing reasons, the IFF and JLM materials contained in CIS's blended fuels were burned in the WCI Steel blast furnace for energy recovery. Therefore, as a

material in column 2 of Table 1 that is being recycled through burning for energy recovery, the IFF and JLM materials satisfy the regulatory definition of waste in OAC § 3745-51-02.

(2) The IFF & JLM Materials Are Not Exempt From the Definition of "Waste" Under OAC § 3745-51-02 [40 C.F.R. § 261.2(E)]

Respondents cannot sustain their burden of proving that the materials are not a waste because of how they are recycled. OAC § 3745-51-02(F). Specifically, Respondents cannot show that the materials are:

> (a) Used or reused as an ingredient in an industrial process to make a product, provided the materials are not be reclaimed; or
> (b) Used or reused as effective substitutes for commercial products;

OAC § 3745-51-02(E)(1)(a) and (b). This is because the record shows that these materials were burned to recover energy, as explained in Section V.A.3.a.1.b.iv, above. Tr. 179-80. Once a material is burned to recover energy, the exemptions at OAC § 3745-51-02(E) cannot be used. Under OAC § 3745-51-02(E)(2), the following materials are wastes, even if the recycling involves use, reuse, or return to the original process (described in paragraphs (E)(1)(a), (E)(1)(b) and (E)(1)(c) of OAC § 3745-51-02(E)): materials burned for energy recovery, used to produce a fuel, or contained in fuels.

In addition, [redacted]

However, there has never been analytical data submitted by Respondents showing the carbon content of the material which is the subject of the Complaint. [redacted]

(3) The IFF and the JLM Wastes Were "Hazardous Waste"

Besides being a "waste" under OAC § 3745-51-02, it is clear that the JLM and IFF wastes were *hazardous* wastes. A waste is a hazardous waste if it exhibits any of the characteristics in OAC §§ 3745-51-20 to 24 [40 C.F.R. Part 261, Subpart C] (ignitability, corrosivity, reactivity, and toxicity) or if it is listed in OAC §§ 3745-51-30 to 53 [40 C.F.R. Part 261, Subpart D] (from specific or non-specific sources). As discussed above, both the JLM and IFF materials are wastes. They are also hazardous wastes. Tr. 225-57. They are designated as follows[21]:

[21] [redacted]

- Unitene LE: D001
- Unitene AGR: D001, D035, F003 and F005
- JLM: K022

D001 is the code assigned to a solid waste which exhibits the characteristic of ignitibility (those wastes with a flash point of less than 140 degrees Fahrenheit). 40 C.F.R. § 261.21(b). D035 is the code assigned to solid waste - specifically MEK - which exhibits the characteristic of toxicity at concentrations of 200mg/L and above. F003 is the code assigned to a solid waste which exhibits the characteristic of toxicity and the toxic contaminants causing it to be hazardous in the case of Unitene AGR are ethyl benzene and methanol. 40 C.F.R. § 261.23(b). F003 is a hazardous waste from non-specific source and is defined as:

> The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

OAC § 3845-51-31(A) [40 C.F.R. § 261.31]. F005 is the code assigned to a solid waste which exhibits the characteristic of toxicity and the toxic contaminant causing it to be hazardous in the case of Unitene AGR is methyl ethyl ketone. 40 C.F.R. § 261.23(b). F005 is a hazardous waste from non-specific source and is defined as:

> The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

OAC § 3845-51-31(A) [40 C.F.R. § 261.31]. K022 is a hazardous waste from a specific source:

[redacted]

> K022: Distillation bottom tars from the production of phenol/acetone from cumene.

OAC § 3845-51-32 [40 C.F.R. § 261.32].

The record is replete with evidence of the designation of these wastes. As for the JLM waste stored and treated by the Respondents, it is designated K022 and/or distillation bottom tars from the production of phenol/acetone from cumene in the following documents: [redacted][22]

[22] [redacted]

As for the Unitene LE waste stored and treated by the Respondents, it is designated D001 or ignitable in the following documents: [redacted]

Finally, as for the IFF Unitene AGR waste stored and treated by the Respondents, it is designated D001, D035, F003 and F005 in the following documents: [redacted] CX29 at EPA16857 (attachment to EPA Inspection Report –MSDS for Unitene AGR showing member of ketone family of chemicals as an ingredient). *See also* [redacted]

It is worth noting that [redacted]

[redacted][23] *Id.*

Therefore, because the JLM and IFF wastes are "wastes", as explained above, and because they meet the hazardous listing and characteristic criteria as explained above, they are in fact hazardous wastes.

(4) The JLM and IFF Materials Are Not Excluded From RCRA (Either the Definition of "Waste" Or the Definition of "Hazardous Waste")

There are a number of materials which are excluded from the definition of solid waste, and a number of solid wastes which are excluded from the definition of hazardous waste.[24, 25, 26]

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[23] Like blast furnaces, cement kilns are considered "industrial furnaces" under OAC § 3745-50-10(A)(56) [40 C.F.R. § 260.10], and can be used for the burning of hazardous wastes for energy recovery so long as the cement kiln has a RCRA permit and meets various regulatory requirements including emission controls for organic compounds. OAC §§ 3745-266-100 to 3745-266-112 [40 C.F.R. Part 266, Subpart H]. The blast furnace fed by the CIS Facility is not and never has been a permitted industrial furnace. Tr. 80.

[24] As noted above, the Ohio regulations use the term "waste", while the federal regulations use the term "solid waste". *See* 40 C.F.R. § 261.2.

[25] Exclusions from the definition of "solid waste" include: domestic sewage and mixtures of domestic sewage; industrial wastewater discharges; irrigation return flows; radioactive waste, in-situ mining waste; pulping liquors; spent sulfuric acid, closed-loop recycling; spent wood preservatives; coke by-product wastes; splash condenser dross residue; hazardous oil-bearing secondary materials and recovered oil from petroleum refining operations; condensates from kraft mill steam strippers; comparable fuels, processed scrap metal; mineral processing spent

See also OAC § 3745-51-04(C)-(G) [40 C.F.R. §§ 261.4(c) - (g)] (listing other exclusions not relevant to this matter). There is no evidence that the IFF and JLM wastes were not excluded under OAC § 3745-04(A) [40 C.F.R. § 261.4(a)]. It is worthwhile to note that the comparable fuel solid waste exclusion may have been applicable to the IFF and/or JLM waste, but the generators (IFF and/or JLM) did not take the necessary steps to satisfy the exclusionary requirements. OAC § 3745-04(A)(16) [40 C.F.R. § 261.4(a)(16)]. In order to qualify for the comparable fuel exclusion, certain physical and constituent specifications must be met, and conditions at such as notification, sampling and analysis, recordkeeping must be met. OAC § 3745-51-38(A) and (B) [40 C.F.R. §§ 261.38(a) and (b)]. None of these requirements were met by the generators (JLM and/or IFF) of the hazardous waste in this case.

b) The JLM and IFF Materials Were Stored and Treated At the CIS Facility

In order to satisfy its burden in this case, EPA must demonstrate that hazardous wastes were stored or treated at the CIS Facility. As an initial matter, EPA has established the fact that CIS *stored* the JLM and IFF materials. May 31, 2012 Order on Motion for Accelerated Decision

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materials petrochemical recovered oil; spent caustic solutions from petroleum refining; zinc fertilizers made from recycled hazardous secondary materials, and; recycling of cathode ray tubes. OAC § 3745-04(A) [40 C.F.R. § 261.4(a)].

[26] Exclusions from the definition of "hazardous waste" include: household hazardous waste; agricultural waste; mining overburden; trivalent chromium wastes; arsenically treated wood; petroleum-contaminated media and debris from underground storage tanks; spent chlorofluorocarbon refrigerants; used oil filters; used oil distillate bottoms, and; landfill leachate or gas condensate derived from certain listed wastes. OAC § 3745-04(B) [40 C.F.R. § 261.4(b)].

at p. 28. Therefore, EPA has already satisfied its burden in proving that the allegedly hazardous material was stored at the CIS Facility. Accordingly, EPA need not address, for the purposes of establishing which actions subjected Respondents to liability, whether the JLM and IFF materials were "treated" at the CIS Facility.[27] EPA need only establish that the JLM and IFF materials are hazardous wastes.

4. Respondents Did Not Have A RCRA Subtitle C Permit For the Hazardous Waste Management Facility

The Respondents did not have a RCRA Subtitle C permit for the CIS hazardous waste management facility. *See* April 9, 2012 Joint Stipulations as to Facts, Exhibits and Testimony, at Schedule A, fact 12.

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[27] The Court has already acknowledged that "[t]he RCRA regulatory language related to its scope and applicability uses the disjunctive to describe facilities engaged in 'treating, storing or disposing of hazardous waste' suggesting that a facility need only engage in one activity (i.e., storing) in order to fall within RCRA's purview." Order on Motion for Accelerated Decision at p. 28. Nonetheless, EPA is compelled to point out that Respondents have admitted that "activities conducted by CIS at the Facility include blending used oil streams; blending used oil with virgin oil products; blending used oil to meet specifications; and marketing on-specification used oil to a consumer." CX41 at EPA6063. *See also* [redacted]. An EPA guidance, titled Regulation of Fuel Blending and Related Treatment and Storage Activities, specifically states that "fuel blending is not exempt from regulatory standards or permitting." CX95 at EPA18547. Therefore, Respondents treated the IFF and JLM materials as well as stored them.

5. Respondents Forster and Lofquist Are Directly Liable As Operators

In this case, both of the individual officers, Forster and Lofquist, were responsible for overall operation of the CIS Facility.[28] Tr. 381-488. Both Forster and Lofquist managed and directed operations specifically having to do with the management of hazardous waste by CIS. Both officers made significant decisions with regard to the facility's compliance with RCRA. As such, both officers are directly liable as operators in this matter.

a) RCRA Definition of "Operator"

As noted above, RCRA Section 3008(a)(1) provides for enforcement against "any person" who violates the RCRA regulations, 42 U.S.C. § 6928(a), and Respondents admit that they were and are "persons" as defined by OAC § 3745-50-10(A)(88) [40 C.F.R. § 260.10], and Section 1004(15) of RCRA, 42 U.S.C. § 6903(15). CX41 at EPA17103, para. 14. However, the requirements of RCRA are directed at "owners and operators." 42 U.S.C. § 6925(a). In this case, EPA has alleged that Respondents Forster and Lofquist are operators. CX40 at EPA17073, para. 14.

The implementing regulations of RCRA define "operator" as "the person responsible for the overall operation of a facility." OAC § 3745-50-10(A)(83) [40 C.F.R. § 260.10]. A number of administrative and federal district court decisions have discussed what constitutes an "operator." The federal district court cases include: *Scarlett & Assoc. v. Briarcliff Center Partners LLC*, No. 1:05-CV-01450CC, 2009 U.S. Dist. LEXIS 90483, at **27-31 (N.D. Ga. Sept. 30, 2009) (RCRA Section 7002 case wherein the Court found that case law indicates the definition of operator is the same under RCRA and the Comprehensive Environmental Response,

[28] Respondents have admitted that CIS is an operator. See Respondents' Answer to U.S. EPA's First Amended Complaint and Compliance Order (April 20, 2012) at paragraph 15.

Compensation, and Liability Act ("CERCLA")); *Bd. Of County Comm. of La Plata v. Brown Group Retail, Inc., et al.*, No. 08-CV-00855-LTB, 2009 U.S. Dist. LEXIS 38771, at *9 (D. Colo. Apr. 24, 2009) (CERCLA case wherein the Court found that the definition of operator under RCRA is substantially the same as the definition under CERCLA); *City of Wichita v. Apco Oil Corp. Liquidating Trust et al.*, 306 F.Supp.2d 1040, 1054 (D. Kan. 2003) (CERCLA case wherein the Court noted that an "operator" under CERCLA "must manage, direct, or conduct operations specifically related to pollution, that is, operations having to do with leakage or disposal or hazardous waste, or decisions about compliance with environmental regulations." (quoting *United States v. Bestfoods*, 524 U.S. 51, 67 (1998)). The administrative cases include: *In re: Southern Timber Products, Inc. D/B/A Southern Pine Wood Preserving Company and Brax Batson*, RCRA (3008) Appeal No. 89-2, 1992 EPA App. LEXIS 15, at **23-35 (Feb. 28, 1992) ("*Southern Timber II*") (RCRA case where Secretary/Treasurer and 10% shareholder of corporation was not shown to be an operator and thus not personally liable, where the evidence failed to shows that he exercised active and pervasive control over facility operations and instead acted merely as liaison between the corporation and State regulatory officials); *In re: Zaclon, Inc., Zaclon LLC and Independence Land Development Company*, Docket No. RCRA 05-2004-0019, 2006 EPA ALJ LEXIS 19, at **17-20 (Apr. 21, 2006)(RCRA case where the court found that complainant had made a colorable claim that two individuals were "operators" of a hazardous waste treatment, storage, or disposal facility, citing to *In re: Southern Timber Products* and noting that "[o]ne or more officers as well as the corporation may be "operators" where these individuals have responsibility for the overall operation of the facility"); *In re: J.V. Peters and Company, Inc., et al.* Docket No. V-W-81-R-75, 1995 EPA ALJ LEXIS 40, at *29 (July 18, 1995) (RCRA matter where the court found an individual who organized the operation

liable as an "operator", where he acquired the property for the operation, was engaged in the daily running of the operation, and made the decisions as to the facility's compliance with RCRA); and, *In re: Everwood Treatment Co., Inc. and Cary W. Thigpen*, Docket No. RCRA-IV-92-15-R, 1995 EPA ALJ LEXIS 109, at **89-90 (July 7, 1995) (RCRA matter where the officer who directed the placement of contaminated soil in a containment unit could liable as an "operator"). As this Court noted in its May 31, 2012 Order on Motions for Accelerated Decision, the parties agree that *Southern Timber II* is the "appropriate framework within which to decide this issue". Order at 30. *Southern Timber II* specifically considered the following factors in determining officer liability: role in the corporation; percent of stock ownership in the corporation; authority to hire, fire and control employees; degree of presence at the facility; involvement in the activity at issue; authority in making financial decisions for the facility; involvement and authority in decision making as to the facility's operation and compliance with laws and regulations at issue; authority and control over the facility; authority in making decisions as to consultants; delegation of responsibility to others; documents submitted to EPA identifying the individual as facility operator and not just corporate representative; and personal liability under a lease at the facility. 192 EPA App. LEXIS, at **23-35.

Furthermore, EPA has a policy of pursuing corporate officers liable under RCRA Section 3008, 42 U.SC. § 6928, due to their personal participation in the corporate action which violated RCRA. *See* Memorandum from K. Stein and B. Diamond to J. Barker and D. Guinyard (Dec. 12, 1990) regarding "Individual Liability of Corporate Offices as Operators Under RCRA" (Attachment C). In this case both Forster and Lofquist exercised active and pervasive control over facility operations, and are therefore liable as operators under RCRA.

b) Forster Was a RCRA "Operator"

Applying the facts of this case to the individual factors listed in *Southern Timber II*, Forster exercised active and pervasive control over facility operations, and is therefore liable as an operator under RCRA. *See In re: Southern Timber Products*, 1992 EPA App. LEXIS, at **23-35.

(1) Role in the Corporation

Forster has always had a significant role in the operation of CIS. [redacted]

[redacted]

(2) Percent of Stock Ownership in the Corporation

Forster [redacted][29]

(3) Involvement in the Activity at Issue

Forster was intimately involved with the activity at issue here: namely, the storage and treatment of hazardous waste without a permit. To begin, [redacted]

[29] [redacted]

[30] *See also* CX26 at EPA15356-15359 and CX27 at EPA16730-16736.

[redacted]

[31] *See also* CX27 at EPA 16750-57 and EPA16759-16765.

[32] The concept of presuming that used oil containing more than 1000 ppm total halogens may be a hazardous waste by virtue of having been mixed with a listed hazardous waste, and that this presumption may be rebutted by showing that it does not contain hazardous waste, is referred to as the "rebuttable presumption." The rebuttable presumption applies to any regulated used oil handler in possession of used oil with a total halogen concentration above 1000 ppm. OAC § 3745-279-63 [40 C.F.R. § 279.44].

[redacted]

(4) Authority in Making Financial Decisions for the Facility

Forster [redacted]

[redacted]

(5) Involvement and Authority in Decision-making as to the Facility's Operation and Compliance with Laws and Regulations at Issue

Forster was intimately involved in the decision making regarding the CIS Facility's operation and regulatory compliance. The laws and regulations at issue in this matter are RCRA and its implementing regulations. Specifically, the question is whether CIS treated and stored materials which were both a "solid waste" and "hazardous waste" under RCRA before CIS sent the material to the blast furnace at WCI Steel. To begin, Forster handled notification of RCRA-regulated activities for CIS. *See* CX45 at EPA17137-17144 (September 29, 2006, letter from Forster to OEPA transmitting an updated RCRA Subtitle C Site Identification Form, which identified the CIS Facility in part as a "Used Oil Fuel Marketer"). But perhaps more importantly, Forster was heavily involved with determining the regulatory status of materials which were considered and, in some cases, accepted at CIS. This involvement occurred before, during and after the shipments at issue in the Complaint:

[redacted]

- 4/12/05 email exchange between **Forster** and Charpia (IWM) wherein Forster provides Charpia with information to give to Louisiana authorities regarding the use of carbon materials in a blast furnace.CX13 at EPA10162-66.

[redacted]

- 11/3/05 email from **Forster** to Charpia wherein Forster confirms that he received "all of [Ernie Willis'] email to oepa about the K022 material". CX13 at EPA10296-304.

[redacted]

[redacted]

- 1/3/06: email exchange between **Forster** and waste broker T. Charpia (IWM) wherein Forster implies that he is orchestrating a 3-prong approach to get EPA to accept shipments of material into CIS as non-hazardous: "working hard on the epa thing bud, hang tough…we are going at them from 3 angles now, they have to act soon" CX13 at EPA10366-7 .
- 1/10/06 email exchange between **Forster** and waste broker T. Charpia (IWM) wherein Forster indicates that CIS is paying for the expert IWM is hiring to help make the argument to that materials being fed to a blast furnace are non-hazardous (similar to Cadence): "…he needs to bill you and you can bill us, we need to have some kind of Purchase Order for him though and a limit like $3500 to start or something." CX13 at EPA10175.

[redacted]

[redacted]

(6) Documents Submitted to EPA Identifying the Individual as Facility Operator and Not Just Corporate Representative

Forster was an operator of the CIS Facility, and not just a corporate representative. As this Court has noted, "it is necessary to establish the entire universe of 'operational' duties and activities in order to know whether the fraction attributed to a particular corporate officer is large enough to be considered 'pervasive' control of 'overall' operations. May 31, 2012 Order on Motion for Accelerated Decision, at p. 30. In the case of CIS, the operations basically consisted of [redacted]

[redacted]

c) Lofquist Was a RCRA "Operator"

As noted above, Lofquist exercised active and pervasive control over facility operations, and is therefore liable as an operator under RCRA. This is clear when one examines individual factors listed in *Southern Timber II*, 1992 EPA App. LEXIS, at **23-35.

(1) Role in the Corporation

Lofquist has been Vice President of CIS since August 2004. [redacted]

[redacted]

(2) Percent of Stock Ownership in the Corporation

Lofquist [redacted][33].

(3) Involvement in the Activity at Issue

Lofquist [redacted]

[33] [redacted]

[redacted]

(4) Authority in Making Financial Decisions for the Facility

Lofquist [redacted]

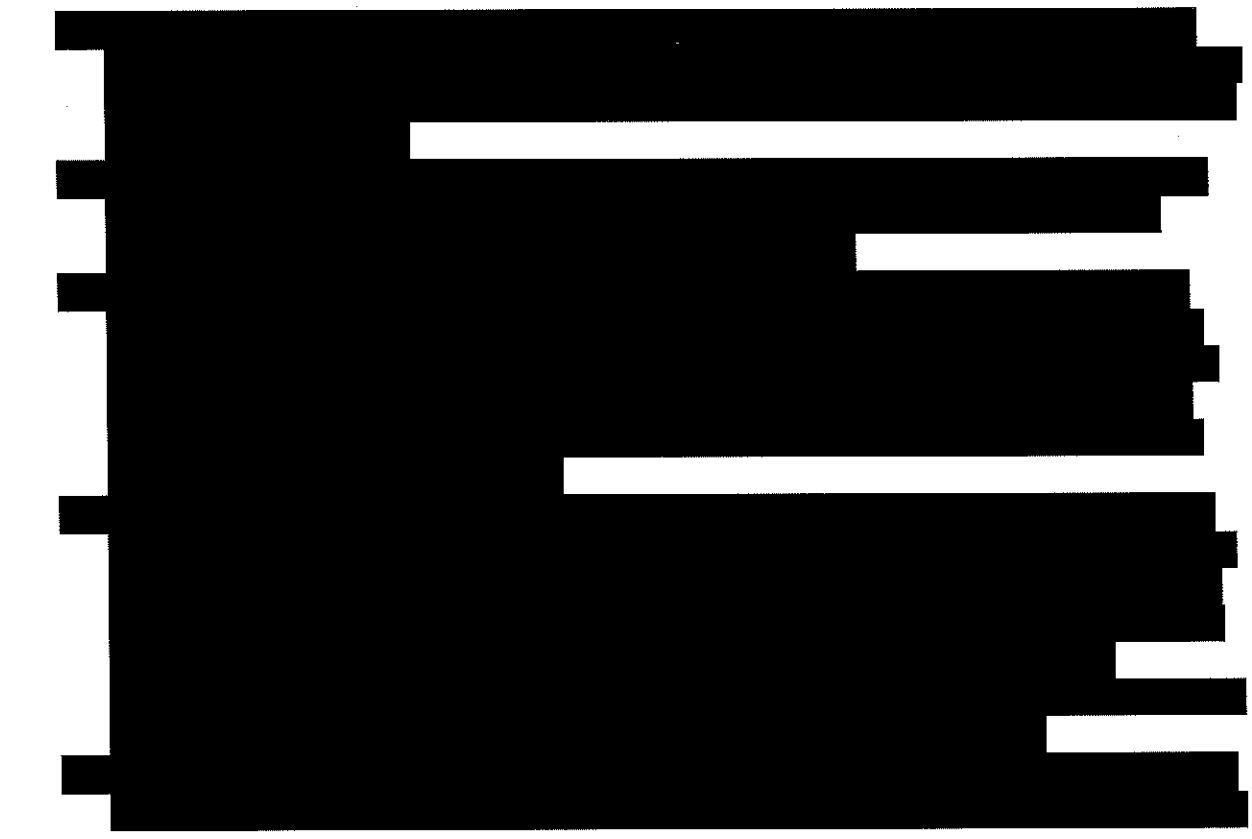
[redacted]

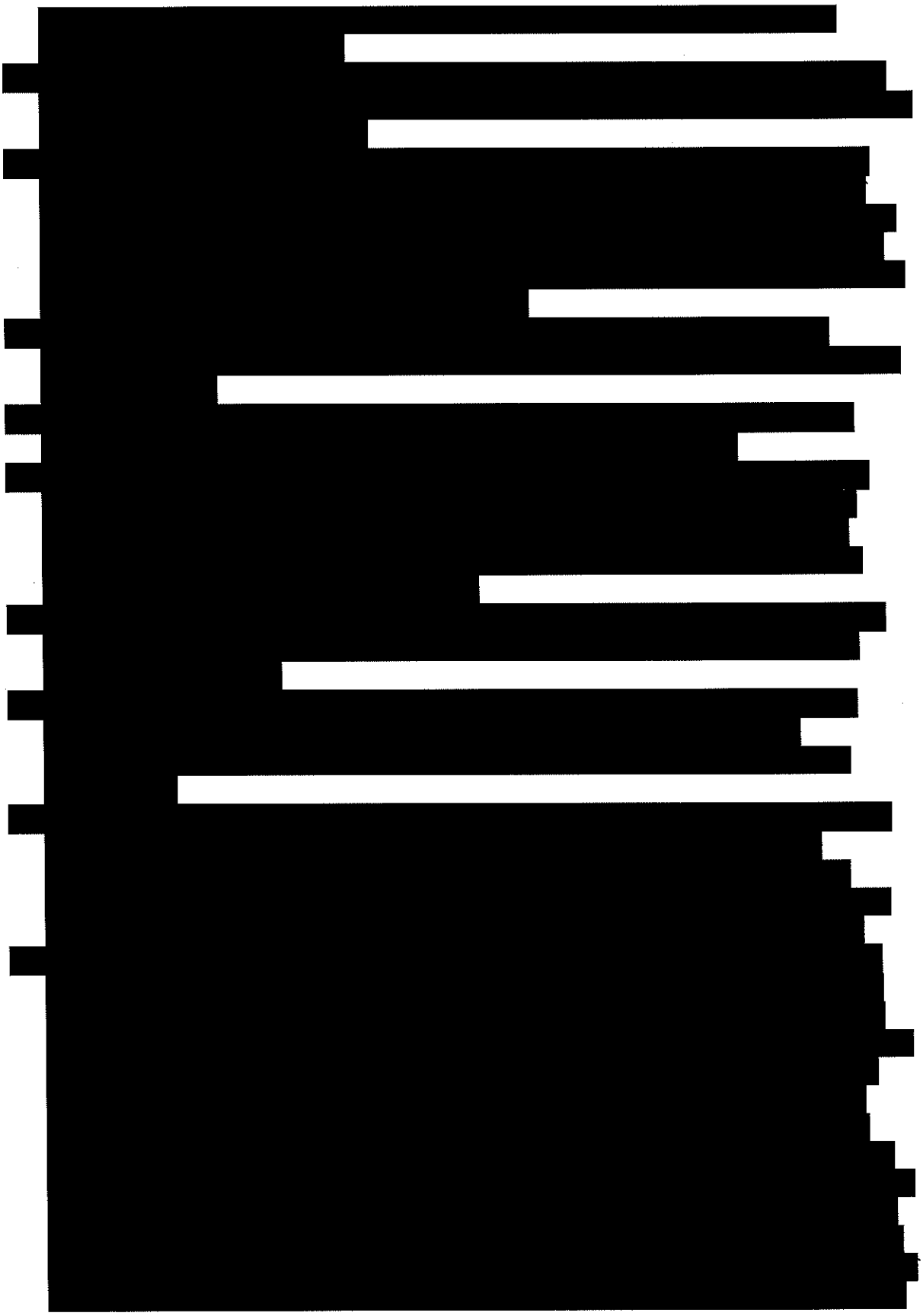
[34] *See also* CX27 at EPA16770.

[redacted]

(5) Involvement and Authority in Decision-making as to the Facility's Operation and Compliance with Laws and Regulations at Issue

Lofquist was intimately involved with the decision making regarding the CIS Facility's operation and regulatory compliance. As noted above, the laws and regulations at issue in this matter are RCRA and its implementing regulations. Specifically, the question is whether CIS treated and stored materials which were both a "solid waste" and "hazardous waste" under RCRA before CIS sent the material to the blast furnace at WCI Steel. Lofquist was [redacted]





"[redacted]

(6) Documents Submitted to EPA Identifying the Individual as Facility Operator and Not Just Corporate Representative

Lofquist was an operator of the CIS Facility, and not just a corporate representative. As this Court has noted, "it is necessary to establish the entire universe of 'operational' duties and activities in order to know whether the fraction attributed to a particular corporate officer is large enough to be considered 'pervasive' control of 'overall' operations. May 31, 2012 Order on Motion for Accelerated Decision, at p. 30. In the case of CIS, the operations basically consisted of [redacted]

[redacted][35]

[35] It should be noted [redacted]

B. Respondents Violated Numerous Other RCRA Subtitle C Requirements at the CIS Facility

The Complaint alleges not just that the Respondents are liable for storage and treatment of hazardous waste without a permit (Count 1), but also that they are liable for a number of other violations flowing from Count 1:

- Count 2: Respondents failed to hold a public meeting;
- Count 3: Respondents did not develop and follow a sufficient written waste analysis plan;
- Count 4: Respondents' facility personnel training and recordkeeping was insufficient;
- Count 5: Respondents failed to meet RCRA preparedness and prevention requirements;
- Count 6: Respondents accepted hazardous waste without an accompanying manifest and failed to prepare and submit an unmanifested waste report;
- Count 7: Respondents failed to have an adequate written closure plan;
- Count 8: Respondents failed to have and maintain a detailed written estimate of closure costs and Respondents failed to comply with applicable financial assurance requirements;
- Count 9: Respondents failed to obtain and keep on file at the facility a written hazardous waste tank assessment; and
- Count 10: Respondents failed to determine and provide land disposal notification and certification pursuant to the applicable land disposal requirement

The Respondents have admitted many of these violations and are unable to refute the evidence with regard to other violations. Tr. 362-376.

1. Respondents Failed To Hold the Required Public Meeting

Respondents failed to hold a public meeting before submitting a RCRA permit application for the CIS Facility. Pursuant to OAC § 3745-50-40(A)(2)(a) [40 C.F.R. § 124.31(b)] prior to the submittal of a complete application for a hazardous waste facility installation and operation permit, the applicant must hold at least one meeting in the township or municipal corporation in which the facility is proposed to be located, whichever is geographically closer to the proposed location of the facility. The meeting must be open to the public and must be held to inform the community of the proposed hazardous waste management activities and to solicit questions from the community concerning the activities. The applicant must provide to the director evidence of the meeting and document community questions

concerning the proposed activities. Respondents failed to comply with this requirement. *See* April 9, 2012 Joint Stipulations as to Facts, Exhibits and Testimony, at Schedule A, fact 13.

2. Respondents Did Not Develop and Follow A Sufficient Written Waste Analysis Plan

Pursuant to OAC § 3745-54-13(B) [40 C.F.R. § 264.13(b)], the owner or operator of a hazardous waste treatment, storage or disposal facility must develop and follow a written waste analysis plan which describes the procedures to be implemented in order to comply with paragraph (A) of this rule. He must keep this plan at the facility. At a minimum, the plan must specify: (1) the parameters for which each hazardous waste will be analyzed and the rationale for the selection of these parameters; (2) the test methods which will be used to test for these parameters; (3) the sampling method which will be used to obtain a representative sample of the waste to be analyzed; (4) the frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date; (5) for off-site facilities, the waste analyses that hazardous waste generators have agreed to supply; and (6) the methods which will be used to meet the additional waste analysis requirements for specific waste management methods of OAC § 3745-270-07.

In addition, pursuant to OAC § 3745-54-13(C) [40 C.F.R. § 264.13(c)] the waste analysis plan must also specify the procedures which will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. The plan must describe the procedures which will be used to determine the identity of each movement of waste managed at the facility.

In an information request to Respondent CIS, EPA asked CIS to provide copies of any written waste analysis plan developed and followed by CIS. CX4 at EPA6040. [redacted]

[redacted] The evidence shows that Respondents did not develop and follow a sufficient written waste analysis plan.

3. Respondents Failed to Provide the Required Personnel Training and Keep the Required Records

OAC § 3745-54-16(A)(1) [40 C.F.R. § 264.16(a)(1)] requires facility personnel to successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of the standards for owners and operators of hazardous waste, treatment, storage and disposal facilities. In addition, OAC § 3745-54-16(D) [40 C.F.R. § 264.16(d)] requires facilities to maintain documents and records related to this training.

In an information request to Respondent CIS, EPA asked CIS to provide: a description of classroom instructions and materials provided to students; a description of on-the-job training and materials provided to students; the names/titles/date trained of all who successfully completed a program of classroom or on-the-job training at CIS, and copies of records associated with that training. CX4 at EPA6039. CIS responded by [redacted]

[redacted] The evidence is clear: Respondents failed to provide the required personnel training and keep the required records.

4. Respondents Failed To Meet RCRA Preparedness and Prevention Requirements

OAC § 3745-54-37(A) [40 C.F.R. § 264.37(a)] requires hazardous waste, treatment, storage and disposal facilities to attempt to make: (1) arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes; (2) where more than one police and fire department may respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department and agreements with any others to provide support to the primary emergency authority; (3) arrangements with Ohio EPA emergency response teams, emergency response contractors, and equipment suppliers; and (4) arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

In an information request to Respondent CIS, EPA asked CIS to provide information regarding any CIS attempts to: familiarize various first responders with the CIS Facility; designate a primary emergency authority and make agreements regarding supporting the primary

emergency authority, as required; make arrangements with OEPA, and make arrangements to familiarize local hospitals with the properties of hazardous waste at the CIS Facility. CX4 at EPA6040. CIS responded by [redacted] Respondents clearly failed to comply with the RCRA preparedness and prevention requirements.

5. Respondents Accepted Hazardous Waste without an Accompanying Manifest and Failed To Prepare and Submit an Unmanifested Waste Report

OAC §3745-54-76 [40 C.F.R. § 264.76] requires that if a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, then the owner or operator must prepare and submit an unmanifested waste report in the form of a letter to the director of the OEPA (in the case of the federal regulations, the Regional Administrator of EPA) within fifteen days after receiving the waste.

In an information request to Respondent CIS, EPA asked CIS to provide information regarding unmanifested waste reports. CX4 at EPA6040. CIS responded by [redacted] The evidence shows that

Respondents accepted hazardous waste without an accompanying manifest and also failed to prepare and submit an unmanifested waste report, as required by the applicable regulations.

6. Respondents Failed To Have an Adequate Written Closure Plan

Pursuant to OAC §§ 3745-55-10 through 3745-55-20 [40 C.F.R. §§ 264.110-120], the owner and operator of a hazardous waste management unit is required to have a written closure plan that identifies the steps necessary to perform partial or final closure of the facility at any point during its active life. Respondents failed to comply with this requirement. *See* April 9, 2012 Joint Stipulations as to Facts, Exhibits and Testimony, at Schedule A, fact 14.[36]

7. Respondents Failed To Have and Maintain a Detailed Written Estimate of Closure Costs and Respondents Failed To Comply With Applicable Financial Assurance Requirements

Pursuant to OAC § 3745-55-40 [40 C.F.R. § 264.140], the owner and/or operator of a hazardous waste management facility is required to have and maintain a detailed written estimate, in current dollars of the cost of closing hazardous waste management units in accordance with the applicable provisions of OAC § 3745-55-42 [40 C.F.R. § 264.142]. In addition, the owner and/or operator of a hazardous waste management unit is required to comply with the financial assurance provisions of OAC § 3745-55-43 [40 C.F.R. § 264.143]. Respondents failed to comply with these requirements. *See* April 9, 2012 Joint Stipulations as to Facts, Exhibits and Testimony, at Schedule A, facts 15-16.

[36] A closure plan was recently submitted to OEPA by Main Street Commodities LLC, but that closure plan is insufficient. Tr. 367-73.

8. Respondents Failed To Obtain and Keep on File at the Facility a Written Hazardous Waste Tank Assessment

Pursuant to OAC § 3745-55-92 [40 C.F.R. § 264.192], the owner and/or operator of a hazardous waste management facility is required to obtain and keep on file at the facility a written assessment reviewed and certified by a qualified Professional Engineer attesting that the tank system was adequately designed and that the tank system had sufficient structural strength and compatibility with the waste(s) to be stored or treated, to ensure that it would not collapse, rupture, or fail. In addition, this assessment should have considered, at a minimum, the following information: (1) design standard(s) according to which tank(s) and/or the ancillary equipment were constructed; and (2) hazardous characteristics of the waste(s) that were to be handled; (3) existing corrosion protection measures; (4) documented age of the tank system; and (5) results of a leak test, internal inspection, or other tank integrity examination.

In an information request to Respondent CIS, EPA asked CIS to provide copies of any such assessment. CX4 at EPA6040-41. CIS responded by [redacted] The evidence shows that Respondents failed to obtain and keep on file

at the CIS Facility a written hazardous waste tank assessment, in accordance with the applicable regulations.

9. Respondents Failed To Determine and Provide Land Disposal Notification and Certification Pursuant To the Applicable Land Disposal Requirements

Pursuant to OAC § 3745-270-07(B)(5) [40 C.F.R. § 268.7(b)(5)], if a treatment facility's waste will be further managed at a different treatment, storage, or disposal facility, the treatment, storage, or disposal facility sending the waste off-site must comply with the notice and certification requirements applicable to generators. Pursuant to OAC § 3745-270-07(A)(1) [40 C.F.R. § 268.7(a)(1)], a generator of a hazardous waste must determine if the waste has to be treated before it can be land disposed. This is done by determining if the hazardous waste meets the treatment standards of OAC §§ 3745-270-40, 3745-270-45, or 3745-270-49 [40 C.F.R. §§ 268.45, 26845 or 268.49]. Pursuant to OAC § 3745-270-07(A)(2-4) [40 C.F.R. § 268.7(a)(2-4)], with the initial shipment of waste to each treatment or storage facility, the generator must send a one-time written notice to each treatment or storage facility receiving the waste, and place a copy in the generator's files.

In this case, [redacted]

[redacted] The evidence shows that Respondents failed to determine and provide land disposal notification and certification pursuant to the applicable land disposal requirements.

D. A Penalty of at Least $1,579,173 is Warranted

1. Statutory Factors

Section 3008 of RCRA, 42 U.S.C. § 6928, gives the Administrator of EPA the authority to assess a civil penalty for violations of RCRA, and to determine the amount of penalty to assess. Section 3008(a)(3) of RCRA, 42 U.S.C. § 6928(a)(3), states "[a]ny penalty assessed in the order shall not exceed $25,000 per day of noncompliance for each violation."[37] In assessing such a penalty, EPA is required to consider "the seriousness of the violation and any good faith efforts to comply with applicable requirements", which EPA did in this case. 42 U.S.C. § 6928(a)(3). CX198, Tr. 491-92.

2. EPA's 2003 RCRA Civil Penalty Policy

Consistent with the RCRA statute, as well as EPA's Policy on Civil Penalties and Framework for Statute-Specific Approaches to Penalty Assessment, EPA issued a RCRA Civil Penalty Policy in June 2003. CX66-68.[38] Tr. 492-4. The RCRA Civil Penalty Policy

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[37] The $25,000 amount in 42 U.S.C. § 6928(a)(3) has been increased to: $27,500 for violations occurring after January 30, 1997 through March 15, 2004; $32,500 for violations occurring after March 15, 2004 through January 12, 2009; $37,500 for violations occurring after January 12, 2009. *See* 40 C.F.R. Part 19. Tr. 492.

[38] The RCRA Civil Penalty Policy was amended as the penalty amount in 42 U.S.C. § 6928(a)(3) was amended. CX69-70. Tr. 494-5. In this case, EPA used the first amendment to the RCRA Civil Penalty Policy. CX69. Tr. 495.

establishes a penalty calculation system to determine the amount to seek in administrative litigation. CX68 at EPA17359. The purpose of the RCRA Civil Penalty Policy is to:

> ensure that RCRA civil penalties are assessed in a fair and consistent manner; that penalties are appropriate for the gravity of the violation committed; that economic incentives for noncompliance with RCRA deter persons from committing RCRA violations; and that compliance is expeditiously achieved and maintained.

CX68 at EPA17363.

The EAB has held that where there is an applicable penalty policy it should be followed, whenever possible, because it ensures that the statutory factors have been taken into consideration and the penalties are assessed in a fair and consistent manner. *In re: M.A. Bruder and Sons, Inc. d/b/a M.A.B. Paints*, RCRA (3008) Appeal No. 01-04, 2002 EPA App. LEXIS 12 at *30 (July 10, 2002). Further, the EAB has stated that where there is an applicable penalty policy, an administrative law judge must have compelling reasons for ignoring that penalty policy when calculating the penalty. *In re: Carroll Oil Company,* RCRA (9006) Appeal No. 01-02, 2002 EPA App. LEXIS 14 at *54 (July 31, 2002). The Board will closely scrutinize a penalty decision where the penalty policy has not been followed. *In re: Chem Lab Products, Inc.*, FIFRA Appeal No. 02-01, 2002 EPA App. LEXIS 17 (Oct. 31, 2002). In this case, EPA followed the RCRA Civil Penalty Policy in calculating a penalty of $1,579,173. CX198.

> The general formula of the Policy consists of:
>
> (1) determining a gravity-based penalty for a particular violation, from a penalty assessment matrix, (2) adding a "multi-day" component, as appropriate, to account for a violation's duration, (3) adjusting the sum of the gravity-based and multi-day components, up or down, for case specific circumstances, and (4) adding to this amount the appropriate economic benefit gained through non-compliance.

CX68 at EPA17359.

3. Application of EPA's 2003 RCRA Civil Penalty Policy to the Violations in This Case

In this case, there are ten counts but only four penalty calculations were made, as several counts were compressed. Tr. 526. As the RCRA Civil Penalty Policy notes:

> In general, penalties for multiple violations may be less likely to be appropriate where the violations are not independent or not substantially distinguishable. Where a claim derives from or merely restates another claim, a separate penalty may not be warranted.

CX68 at EPA17379.

In this case, EPA determined that it was appropriate to compress Counts 2, 5, 6, 7, and 9 into Count 1. CX198 at EPA026817; Tr. 526. Penalty calculations were done for Counts 1, 4, 8 and 10. CX198.

a) Count 1 Penalty Calculation

As noted in the Second Amended Complaint for this matter, Respondents' storage and treatment of hazardous waste without a permit violated Section 3005 of RCRA, 42 U.S.C. § 6925(a), and the requirements of OAC §§ 3745-50-40 to 3745-50-66 [40 C.F.R. §§ 270.1(c) and 270.10(a) and (d), and 270.13]. Second Amended Complaint at ¶53. Storage and treatment of hazardous waste without a permit is the basis for Count 1, although a number of other counts (2, 3, 5, 6, 7 and 9) from the Complaint were compressed with Count 1 for purposes of penalty calculation. CX68 at EPA17379, Tr. 526. The total penalty appropriate for the Count 1 violation (along with the counts compressed with Count 1) is $1,027,236. Tr. 535.

(1) Gravity-based Penalty

The amount of the gravity-based penalty is determined by selecting a dollar figure from the gravity matrix contained in the RCRA Civil Penalty Policy's January 2005 revision:

GRAVITY MATRIX

Extent of Deviation from Requirement

Potential for Harm	MAJOR	MODERATE	MINOR
MAJOR	$32,500 to 25,791	$25,790 to 19,343	$19,342 to 14,185
MODERATE	$14,184 to 10,316	$10,315 to 6,448	$6,447 to 3,869
MINOR	$3,868 to 1,934	$1,933 to 645	$644 to 129

CX69 at EPA17642, Tr. 469.

In order to select the dollar figure from the gravity matrix, the RCRA Civil Penalty Policy directs that first a cell within the matrix is selected, and then a dollar figure within the selected cell is identified.

(a) Cell Selection

To select a cell, the extent of potential for harm and extent of deviation is considered using the following analysis:

- potential for harm, CX68 at EPA17370-74
  - harm to human health and the environment, CX68 at EPA17371-72
    - probability of exposure, CX68 at EPA17371
    - potential seriousness of contamination, CX68 at EPA17371-72
  - harm to the RCRA regulatory program, CX68 at EPA17372-73
- extent of deviation, CX68 at EPA 17374

In calculating Count 1, EPA determined that potential for harm was major and extent of deviation was major. CX198 at EPA026817-19. In evaluating potential for harm, EPA looked at harm to human health and harm to the RCRA regulatory program.

To determine harm to human health and the environment, EPA examined the probability of exposure and the potential seriousness of contamination. CX198 at EPA026817; Tr. 497-508. As explained in EPA inspector Michael Beedle's penalty narrative, there was a probability of

exposure due to the fact that there was essentially "no hazardous waste management system at CIS." CX198 at EPA026817. Persons who could be exposed to the hazardous waste included:

- CIS workers (who were not trained in how to handle hazardous waste, and may have been exposed to cleanup debris). CX29; CX198 at EPA 026817; Tr. 498-500; and
- WCI workers (who were not aware that hazardous wastes were being mixed with used oil and being fed to the blast furnace). CX198 at EPA 026817

As described in the penalty narrative, the potential seriousness of contamination was gauged by looking at:

- hazardous waste quantity and characteristic (over 8.5 million pounds of hazardous wastes K022, D001, D035, F001 and/or F005[39]). CX41; CX124-26; CX198 at EPA 026817; Tr. 497-98;
- transportation (hazardous waste was transported via pipe to the blast furnace where it was burned and released to the air, and hazardous waste cleanup debris was likely not disposed of as hazardous waste). CX29; CX198 at EPA 026817; Tr. 498-500; Tr. 1876-1878 (Respondents' witness, Ernie Willis, [redacted]); Tr. 2210-11 (CIS employee Robert Malecki [redacted]); and
- receptors (CIS workers, WCI Steel workers, residents in the adjacent environmental justice residential area and environmental receptors along the Mahoning River); CX198 at EPA 026817; CX112; Tr. 500-504. *See also* Tr. 2207-08 (CIS employee Robert

[39] These hazardous wastes are of concern for specific reasons, as demonstrated in the record for this matter. K022 is of concern due to the specific human health and environmental concerns which EPA has detailed in background listing documents. CX141; Tr. 508. D001 is of concern due to the fact that it is ignitable at low temperatures and EPA has detailed specific human health and environmental concerns in relation to D001. CX125; Tr. 505-506. D035 is of concern due to the content of MEK in material which carries that designation, and again, EPA has detailed specific human health and environmental concerns in relation to D001. CX126; Tr. 506-507. Finally, F003 and F005 are of concern due to the specific human health and environmental concerns which EPA has detailed in background listing documents. CX126; Tr. 507.

Malecki [redacted]); Tr. 2212 (CIS employee Robert Malecki [redacted]).

To determine harm to the RCRA regulatory program, EPA considered the purpose of the permitting scheme in RCRA and the fact that compliance with a permit ensures that hazardous waste is handled in a controlled manner that is protective of human health and the environment. CX198 at EPA 026818; Tr. 1815-16 (Respondents' witness, Steven Charpia, [redacted]); Tr. 1876-1878 (Respondents' witness, Ernie Willis, [redacted]); Tr. 1966 (Respondents' witness, Zygmunt Osiecki, [redacted]).

In evaluating extent of deviation, one need only consider the simple fact that the requirement to obtain a permit was not met. CX198 at EPA026818-19. In fact, the Respondents never applied for a permit. April 9, 2012 Joint Stipulations as to Facts, Exhibits and Testimony, at Schedule A, fact 12. This is a major deviation.

(b) Position Within Cell

Once EPA determined that the violation was "major/major", EPA selected a position in the range depicted in the "major/major" cell. CX198 at EPA 02618819-20. To do so, EPA considered seriousness of violation, environmental sensitivity, efforts at remediation, degree of cooperation, company size, company sophistication, duration of violation and other relevant matters. CX198 at EPA026819-20. As for seriousness of violation, the Respondents failed to comply with what is arguably *the* baseline requirement in RCRA: obtaining a permit. CX198 at EPA026819. As noted above, the violation occurred in an area of environmental sensitivity (adjacent to the Mahoning River). *Id.* CIS never made an attempt to obtain a permit. *Id. See also* April 9, 2012 Joint Stipulations as to Facts, Exhibits and Testimony, at Schedule A, fact 12.

Furthermore, Respondents Forster and Lofquist have owned and/or operated eight companies which manage used oil, solid waste or hazardous waste. Even before they were worked together, they garnered significant work experience elsewhere which required knowledge of RCRA and its implementing regulations. CX71 at EPA 17470-79; CX198 at EPA026819-20; Tr. 505-511, 1832 (Forster background), 1893 (Lofquist background), 1896-1915, 1971-72 (Lofquist experience), 2007 (Lofquist experience: [redacted]), 2228 (Forster experience). Forster and Lofquist are sophisticated individuals running CIS. The duration of the violation is also significant, since the violation occurred over several years. CX72 at EPA18042-43; CX198 at EPA026820; Tr. 512-13. Last but not least, when selecting a position in the range depicted in the "major/major" cell, EPA considered the fact that both EPA and OEPA have always maintained that what Respondents were doing was not using the material in question as a substitute for carbon in the blast furnace, but rather treating and storing hazardous waste. CX198 at EPA026820. In consideration of these factors, the appropriate place in the major-major matrix cell is at least $30,100 (sixty-four percent). CX69 at EPA17462; CX198 at EPA026819.

(2) Multiple/Multi-Day Penalty

Multi-day penalties are considered mandatory for days 2-180 of all violations with major-major gravity-based designations. CX68 at EPA17383. Multi-day penalties are selected from the following matrix, contained in the RCRA Civil Penalty Policy's January 2005 revision:

MULTI-DAY MATRIX OF MINIMUM DAILY PENALTIES

Potential for Harm	Extent of Deviation from Requirement		
	MAJOR	MODERATE	MINOR
MAJOR	$6,448 to 1,290	$5,158 to 967	$3,869 to 709
MODERATE	$2,837 to 516	$2,063 to 322	$1,290 to 193
MINOR	$774 to 129	$387 to 129	$129

CX69 at EPA 17643; Tr. 469.

In order to select a dollar figure from the multi-day matrix, EPA goes to the same cell as was used in the gravity matrix (for Count 1, the major/major cell). CX68 at EPA17383-85; CX198 at EPA026819. Once a cell is selected, a position in the cell range is selected after consideration of the same factors listed in V.D.3.a.1, above. In this instance, the appropriate place in the multi-day major-major matrix cell is $4,600 (sixty-four percent). CX69 at EPA17463; CX198 at EPA026819. EPA then multiplied $4,600 by the number of days of noncompliance. CX72; Tr. 512-17. The total for the multi-day component was $823,400.

(3) Adjustment Factors

The RCRA Civil Penalty Policy next allows for adjustment of the sum of the gravity-based and the multi-day components of the penalty. In this case, an upwards adjustment is appropriate given the Respondents' history of noncompliance – both civil and criminal. CX49-53; CX68 at EPA17395-96; CX198 at EPA026821-22; Tr. 517.

As for criminal violations, Respondent Scott Forster and a Forster/Lofquist limited liability company named GEM[40] pled guilty to making false statements to the government in

[40] Significantly, Respondent Lofquist signed the plea agreement on behalf of GEM. CX51; Tr.

relation to a case that involved two environmental statutes: RCRA and the Clean Water Act. CX49-53; CX97-103; CX105-111; CX198 at EPA026821; Tr. 2252-54; Tr. 2044-47; Tr. 2252-54.

As for civil violations, the evidence shows that various Forster/Lofquist business entities had a significant number of previous violations. CX97-103; CX105-111; CX198 at EPA026821-22. All of these previous violations were in the last ten (10) years and are therefore relatively recent. In many cases, there is evidence that the violations were resolved to satisfaction of environmental regulators, but that does not erase the fact that they occurred.

(4) Economic Benefit

The RCRA Civil Penalty Policy also mandates the capture of any significant economic benefit of noncompliance that accrues to a violator from noncompliance with the law. CX68 at EPA17386-90. The reason for this is: "[i]f, after the penalty is paid, violators still profit by violating the law, there is little incentive to comply." CX68 at EPA17386. This is accomplished by collecting both avoided costs and delayed costs using the EPA's BEN Model, and then adding the two together. CX68 at EPA17388; CX198 at EPA026822-23, EPA026844-66; Tr. 528-29. For Count 1, the total economic benefit is $131,061. Tr. 529.

(a) Avoided Costs

In this case, the avoided costs associated with Count 1 (recall that other counts were compressed into Count 1) were estimated using three sources. First, an EPA guidance document entitled Estimating Costs for the Economic Benefits of RCRA Noncompliance, September 1997 (updated in December 1997). Second, the actual permit fees for a tank treatment and storage

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2044.

facility in Ohio for 2010. Third, the costs of tank certification from a business which conducts tank certifications (2010 dollars). CX153; CX198 at EPA026822 and EPA026844; Tr. 526-27.

The BEN model adjusts for inflation rates based on the year of the cost estimate. Since the BEN adjusts for inflation, the costs avoided were totaled for initial and recurring costs for the respective years of estimates separately. The estimates from the 1997 Estimating Costs manual (1996 dollars); and the 2010 estimate and actual costs (2010 dollars) were run in the BEN model separately then totaled. CX198 at EPA026844.

The totaled 1996 estimated initial avoided cost was $52,361 and recurring avoided cost was $10,287. The totaled 2010 estimated initial avoided cost was $4,500 and the recurring avoided cost was $1,200. Using the BEN Model, EPA calculated an Economic Benefit of $115,581 for the 1996 dollar estimates and $8,018 for the 2010 actual costs. CX198 at EPA026844 and EPA026846-66.

The dates used for the calculation were: non-compliance November 22, 2005; compliance March 1, 2010; and penalty payment June 18, 2012. CX198 at EPA026822-23 and 026844. The total economic benefit estimate for avoided costs, as calculated by BEN using input relative to Count 1, was $123,599. CX198 at EPA026822-23 and EPA026844.

(b) Delayed Costs

In this case, the delayed costs associated with the Count 1 calculation (again, recall that other counts were compressed into Count 1) were estimated using operating costs associated with developing and maintaining a closure plan (the initial costs are delayed and the annual costs are avoided). Again, the costs of complying with this requirement were estimated using the EPA guidance document entitled Estimating Costs for the Economic Benefits of RCRA Noncompliance, September 1997 (updated in December 1997). CX153; CX198 at EPA026823.

The closure plan estimated costs used were $12,800 initially and $572 annually. The dates used for the calculation were: non-compliance November 22, 2005; and compliance and penalty payment June 18, 2012 (this violation is continuing). CX198 at EPA026823 and EPA026844. The total economic benefit estimate for delayed costs, as calculated by BEN using input relative to Count 1, was $7,462. CX198 at EPA026823, EPA026844, and EPA026860-EPA026866.

b) Count 4 Penalty Calculation

Respondents also failed to comply with the personnel training requirements of RCRA, and this violation is the basis for Count 4 in the Complaint. The penalty for Count 4 was calculated in the same manner as for Count 1, using the RCRA Civil Penalty Policy, although Count 4 requires the consideration of different facts for some of the penalty components, in comparison to Count 1. The total penalty appropriate for the Count 4 violation is $74,498. Tr. 535.

(1) Gravity-based Penalty

In order to select the dollar figure from the gravity matrix, EPA again looked to the appropriate matrix and used the following criteria:

- potential for harm. CX68 at EPA17370-74
  - harm to human health and the environment CX68 at EPA17371-72
    - probability of exposure CX68 at EPA17371
    - potential seriousness of contamination CX68 at EPA17371-72
  - harm to the RCRA regulatory program CX68 at EPA17372-73
- extent of deviation. CX68 at EPA 17374

The potential for harm associated with Count 4 was deemed to be major. CX198 at EPA026825-26. As for probability of exposure, it was high. CX198 at EPA026825. There was evidence of a release observed during the August 27, 2008 inspection and the CIS Facility managed hazardous waste as used oil. CX29 and CX198 at EPA026825. This clearly put CIS workers at risk of exposure. CIS workers (through likely incidental spills and a complete lack of

hazardous waste training), WCI workers (through potential spills of the hazardous waste CIS was transporting to the blast furnace and through releases to the air of emissions from the blast furnace) and others working or living near the blast furnace (including an environmental justice community) were also at risk of exposure. CX112, CX198 at EPA026825. As for potential seriousness of contamination, both Counts 1 and 4 involve the same characteristic and listed hazardous wastes (K022, D001, D035, F001 and/or F005). CX198 at EPA026825.

Harm to the RCRA regulatory program was also major. CX198 at EPA026825-26. The harm was caused by Respondents' failure to comply with the personnel training requirements of RCRA, which undermines the purposes of RCRA by not providing information regarding the management of hazardous waste to workers. *Id.*

Extent of deviation was moderate. CX198 at EPA026826. Respondents failed to comply with the personnel training requirements of RCRA (although some emergency response training related to used oil management was provided to CIS workers). CX4 at EPA6039, CX198 at EPA026825.

When selecting a position in the range depicted in the "major/moderate" cell, EPA considered essentially the same information as it did for Count 1. In consideration of this information, the appropriate place in the major-major matrix cell is $23,500 (sixty-four percent). CX69 at EPA17462; CX198 at EPA026826.

(2) Multiple/Multi-Day Penalty

Multi-day penalties are considered mandatory for days 2-180 of all violations with major-moderate gravity-based designations. CX68 at EPA17383. The position in the "major/moderate" cell range is selected after consideration of virtually the same factors listed in V.D.3.a.1, above. In this instance, the appropriate place in the multi-day major-moderate matrix

cell is $3,650 (sixty-four percent). CX69 at EPA17463; CX198 at EPA026826. EPA then multiplied $3,650 by the number of days of noncompliance. CX72; Tr. 512-17. There were fourteen (14) training events missed by CIS (approximately six (6) employees over two (2) years and two (2) events for the two (2) years the waste was still stored onsite but the CIS Facility was not feeding the blast furnace). CX198 at EPA026826-28. The total for the multi-day component was $47,450.

(3) Adjustment Factors and Economic Benefit

EPA believes that the adjustment factor used for Count 1, a five percent upward adjustment for history of noncompliance, is also applicable to Count 4. Five percent of the gravity component for Count 4 is $2,548. EPA is not seeking economic benefit in relation to Count 4.

b) Count 8 Penalty Calculation

Respondents also failed to comply with the financial assurance requirements of RCRA, and this violation is the basis for Count 8 in the Complaint. All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the cleanup, closure, and post-closure care of their facilities. They also must demonstrate that they have sufficient funds to pay for the cleanup of any accidental releases of hazardous constituents during the active life of their facilities, and compensate any third parties for any resulting bodily injury or property damage. These requirements are known as "financial assurance". The penalty for Count 8 was calculated in the same manner as for Count 1, using the RCRA Civil Penalty Policy, although Count 8 requires the consideration of different facts for some of the penalty components, in comparison to Count 1. The total penalty appropriate for the Count 8 violation is $441,004. Tr. 536.

(1) Gravity-based Penalty

In order to select the dollar figure from the gravity matrix, EPA again looked to the appropriate matrix and used the following criteria:

- potential for harm. CX68 at EPA17370-74
  - harm to human health and the environment CX68 at EPA17371-72
    - probability of exposure CX68 at EPA17371
    - potential seriousness of contamination CX68 at EPA17371-72
  - harm to the RCRA regulatory program CX68 at EPA17372-73
- extent of deviation. CX68 at EPA 17374

The potential for harm associated with Count 8 is moderate. CX198 at EPA026831. As for probability of exposure, EPA observed in its August 27, 2008 inspection that there were drums of cleanup debris which CIS was not handling as a hazardous waste. CX198 at EPA026831. As for potential seriousness of contamination, CIS had eleven (11) tanks at the CIS Facility holding approximately 20,000 gallons each. Having such a large volume of material at the CIS Facility with no mechanism in place to assure that CIS could cover the cost of closure, post-closure and liability means that there was a very real possibility that in the event of a spill (in an environmental justice area, no less), the cost of cleanup may fall to the taxpayers rather than the facility owners/operators. CX198 at EPA026831.

Harm to the RCRA regulatory program is also significant. If facilities do not comply with the financial assurance requirements of RCRA, EPA will be unable to prevent future Superfund (abandoned) hazardous waste sites. CX198 at EPA026832.

The extent of deviation for Count 8 is major. CX198 at EPA026832. The Respondents completely failed to comply with the financial assurance requirements of RCRA. CX5 at EPA6052.

When selecting a position in the range depicted in the "moderate/major" cell, EPA considered essentially the same information as it did for Count 1. In consideration of this

information, the appropriate place in the major-major matrix cell is $12,800 (sixty-four percent). CX69 at EPA17462; CX198 at EPA026832.

(2) Multiple/Multi-Day Penalty

There is a presumption in favor of multi-day penalties for days 2-180 of all violations with moderate-major gravity-based designations, and multi-day penalties for days 181+ are discretionary. CX68 at EPA17383. Respondents were in violation of the requirement from November 21, 2005 to approximately March 1, 2010. EPA used its discretion and assessed 179 multi-day penalties after the first day of noncompliance. In this instance, the appropriate place in the multi-day moderate-major matrix cell is $2,000 (sixty-four percent). CX69 at EPA17463; CX198 at EPA026832. EPA then multiplied $2,000 by the number of days of noncompliance: 179 (EPA used its discretion not to seek multi-day penalties past 180 days). CX72; Tr. 512-17. The total for the multi-day component was $358,000.

(3) Adjustment Factors

EPA believes that the adjustment factor used for Count 1, a five percent upward adjustment for history of noncompliance, is also applicable to Count 8. Five percent of the gravity component for Count 8 is $18,540.

(4) Economic Benefit

Similar to Count 1, the economic benefit associated with Count 8 was calculated – however in that case of Count 8, only delayed costs were calculated. For Count 8, the total economic benefit is $51,664. CX198 at EPA026836.

This figure was reached by looking at two types of expenses: the administrative costs of obtaining financial assurance and the actual costs of the financial assurance.

The administrative costs of complying with this requirement were estimated using Estimating Costs for the Economic Benefits of RCRA Noncompliance, September 1997 (December 1997 revision) for the costs of estimating closures costs, selection of a financial assurance mechanism, and establishment of a letter of credit. Id. The letter of credit is considered to be the least expensive financial assurance mechanism. CX198 at EPA026836.

The actual cost of the financial assurance depends on the estimate of closure costs. Closure costs must be first estimated to be able to estimate the cost of the financial assurance mechanism. The closure costs for CIS were estimated using a detailed model developed by the State of Washington Department of Ecology titled Closure Costs Estimating Tool. CX152. This tool is series of spreadsheets that estimates all costs associated with closure. This estimate was performed in December 2010. The closure cost estimate was then multiplied by the credit fee percentage estimate of 1.5%. The credit fee percentage was from the Estimating Costs for the Economic Benefits of RCRA Noncompliance, September 1997 (updated in December 1997). CX152. The credit fee in this manual was confirmed by researching line of credit fees in 2010 and 2011. CX198 at EPA026836.

The BEN model adjusts for inflation rates based on the year of the cost estimate. Since the BEN adjusts for inflation, the costs avoided were totaled for initial and recurring costs for the respective years of estimates separately. The estimates from the 1997 Estimating Costs manual (1997 dollars) and the 2010 estimates were run in the BEN model separately, then totaled. CX198 at EPA026844.

The totaled 1997 estimated initial avoided cost was $3,052 and recurring avoided cost was $41. The totaled 2010 estimated initial avoided cost was $9,948 and recurring avoided cost was $9,948. The dates used for the calculation were: non-compliance November 22, 2005; and

compliance and payment June 18, 2012. Using the BEN Model, EPA calculated an economic benefit of $1,046 for the 1997 dollar estimates and $50,618 for the 2010 estimates. The total economic benefit for Count 8 estimate is $51,664.

b) Count 10 Penalty Calculation

Respondents failed to make a treatment determination and provide land disposal notification and certification pursuant to the land disposal requirements of RCRA, and this violation is the basis for Count 10 in the Complaint. The penalty for Count 10 was calculated in the same manner as for Count 1, using the RCRA Civil Penalty Policy, although Count 10 requires the consideration of different facts for some of the penalty components, in comparison to Count 1. The total penalty appropriate for the Count 10 violation is $36,435. Tr. 536.

(1) Gravity-based Penalty

In order to select the dollar figure from the gravity matrix, EPA again considered the following:

- potential for harm. CX68 at EPA17370-74
  - harm to human health and the environment CX68 at EPA17371-72
    - probability of exposure CX68 at EPA17371
    - potential seriousness of contamination CX68 at EPA17371-72
  - harm to the RCRA regulatory program CX68 at EPA17372-73
- extent of deviation. CX68 at EPA 17374

The potential for harm associated with Count 10 is major. As for probability of exposure, CIS did not comply with the land disposal requirement to inform the next waste handler (WCI Steel) how the hazardous waste needed to meet the treatment standard or if the hazardous waste could be disposed of without treatment. In addition, EPA observed in its August 27, 2008 inspection that there were drums of cleanup debris which CIS was not handling as a hazardous waste. As for potential seriousness of contamination, CIS managed over 8.5 million pounds of hazardous waste, which was sent to WCI Steel for burning in its blast furnace. WCI Steel was

unaware that the material was hazardous waste and CIS did not give WCI Steel any information regarding the potential applicability of a treatment standard

Harm to the RCRA regulatory program is also significant. This violation of land disposal restrictions contained in RCRA constitutes a complete disregard of RCA's cradle to grave regulation of hazardous waste.

The extent of deviation for Count 8 is major. The Respondents completely failed to comply with the land disposal requirements of RCRA.

When selecting a position in the range depicted in the "major/major" cell, EPA considered essentially the same information as it did for Count 1. In consideration of this information, the appropriate place in the major-major matrix cell is $30,100 (sixty-four percent). CX69 at EPA17462; CX198 at EPA026832.

(2) Multiple/Multi-Day Penalty

Multi-day penalties are considered mandatory for days 2-180 of all violations with major-major gravity-based designations. CX68 at EPA17383. In order to select a dollar figure from the multi-day matrix, EPA goes to the same cell as was used in the gravity matrix. CX68 at EPA17383-85. Once a cell is selected, a position in the cell range is selected after consideration of the same factors listed in V.D.3.a.1, above. In this instance, the appropriate place in the multi-day major-major matrix cell is $4,600 (sixty-four percent). CX69 at EPA17463; CX198 at EPA026832-33. EPA then multiplied $4,600 by the number of days of noncompliance. CX72; CX198 at EPA026832; Tr. 512-17. Respondents were in violation of the land disposal restrictions from November 21, 2005 to March 1, 2010. CX198 at EPA026832. The total for the multi-day component was $4,600.

(3) Adjustment Factors and Economic Benefit

EPA believes that the adjustment factor used for Count 1, a five percent upward adjustment for history of noncompliance, is also applicable to Count 10. CX198 at EPA026834-35. Five percent of the gravity component of Count10 is $1,735. EPA is not seeking economic benefit in relation to Count 10.

4. Issues Raised in the "Affirmative Defense" Section of Respondent's Second Answer Do Not Warrant a Reduction in Penalty

a) EPA Has *Not* Failed to Join a Party or Parties Necessary for the Just and Equitable Adjudication of This Matter

In their second Answer, Respondents raised what they termed an "affirmative defense", asserting that EPA has failed to join a party or parties necessary for the just and equitable adjudication of this matter. April 20, 2012, Respondents' Answer to U.S. EPA's First Amended Complaint and Compliance Order. In this Court's February 14, 2012 Order, it was determined that this is "not a true 'affirmative defense'", but rather may "be taken into account in determining the appropriate penalty". February 14, 2012 Order on Complainant's Motion to Strike Affirmative Defenses at 5. Specifically, this Court determined that if the assertion was true, it would likely be relevant to the adjustment factor "Degree of Willfulness and/or Negligence". Order at 5. To the extent this argument is relevant to the case, Respondents did not submit sufficient evidence to prove their assertion: it is clear that EPA has *not* failed to join a party or parties necessary for the just and equitable adjudication of this matter. There is no basis on which to adjust the "Degree of Willfulness and/or Negligence" adjustment factor. Furthermore, the RCRA Civil Penalty Policy *only allows for an adjustment upwards* for "Degree of Willfulness and/or Negligence". In this case none of the penalty calculations were adjusted upwards for this factor and therefore, even if Respondents did submit sufficient evidence to

prove their assertion, under the policy there would be no way to adjust the calculations downwards under EPA's application of the RCRA Civil Penalty Policy.

(b) Respondents Were Not Without Sufficient Knowledge or Ability to Properly Characterize the Material in Question and/or Were Not Otherwise Misled With Respect to the Nature of the Material

In their second Answer, Respondents raised what they termed an "affirmative defense", asserting that Respondents were without sufficient knowledge or ability to properly characterize the material in question and/or were otherwise misled with respect to the nature of the material. April 20, 2012, Respondents' Answer to U.S. EPA's First Amended Complaint and Compliance Order. In this Court's February 14, 2012 Order, it was determined that because RCRA is a strict liability statute this alleged defense "cannot defeat liability and is, therefore, not a true affirmative defense." Order at 13. However, the Court also noted that the alleged defense may be relevant to the issue of appropriate penalty amount. *Id.* In this case, Respondents did not submit sufficient evidence to prove their assertion: it is clear that Respondents did have sufficient knowledge or the ability to properly characterize the material in question and were not misled with respect to the nature of the material.

(1) Respondents Had Sufficient Knowledge or Ability to Properly Characterize the Hazardous Waste They Managed

As noted above, Respondents Forster and Lofquist were clearly sophisticated parties at the time of the violations. *See* V.D.3, above. They had more than general knowledge regarding RCRA and its implementing regulations. Before the materials were handled as alleged in the Complaint, Respondents were on notice of their status by virtue of both the regulations

themselves *see* V.E.2, below) and the position regulators had with regard to several arguments they have raised in this matter.[41, 42]

- whether material is used to recover energy in the blast furnace, 40 C.F.R. § 261.2(c)(2)(i)(A)
- whether material is exempt from the definition of solid waste since they are not being used or reused as ingredients in an industrial process to make a product, 40 C.F.R. § 261.2(e)(1)(i)
- whether material is exempt from the definition of solid waste since they are not being used or reused as an effective substitute for a commercial product, 40 C.F.R. § 261.2(e)(1)(i)

Prior to the time Respondents managed the materials as alleged in the Complaint, these arguments were raised to regulators by Respondents, one of Respondents' brokers, and two generators of materials which were candidates for management by CIS prior to be being sent to the WCI Steel blast furnace. Both EPA and OEPA rejected the arguments being made, and Respondents were aware of these rejections.

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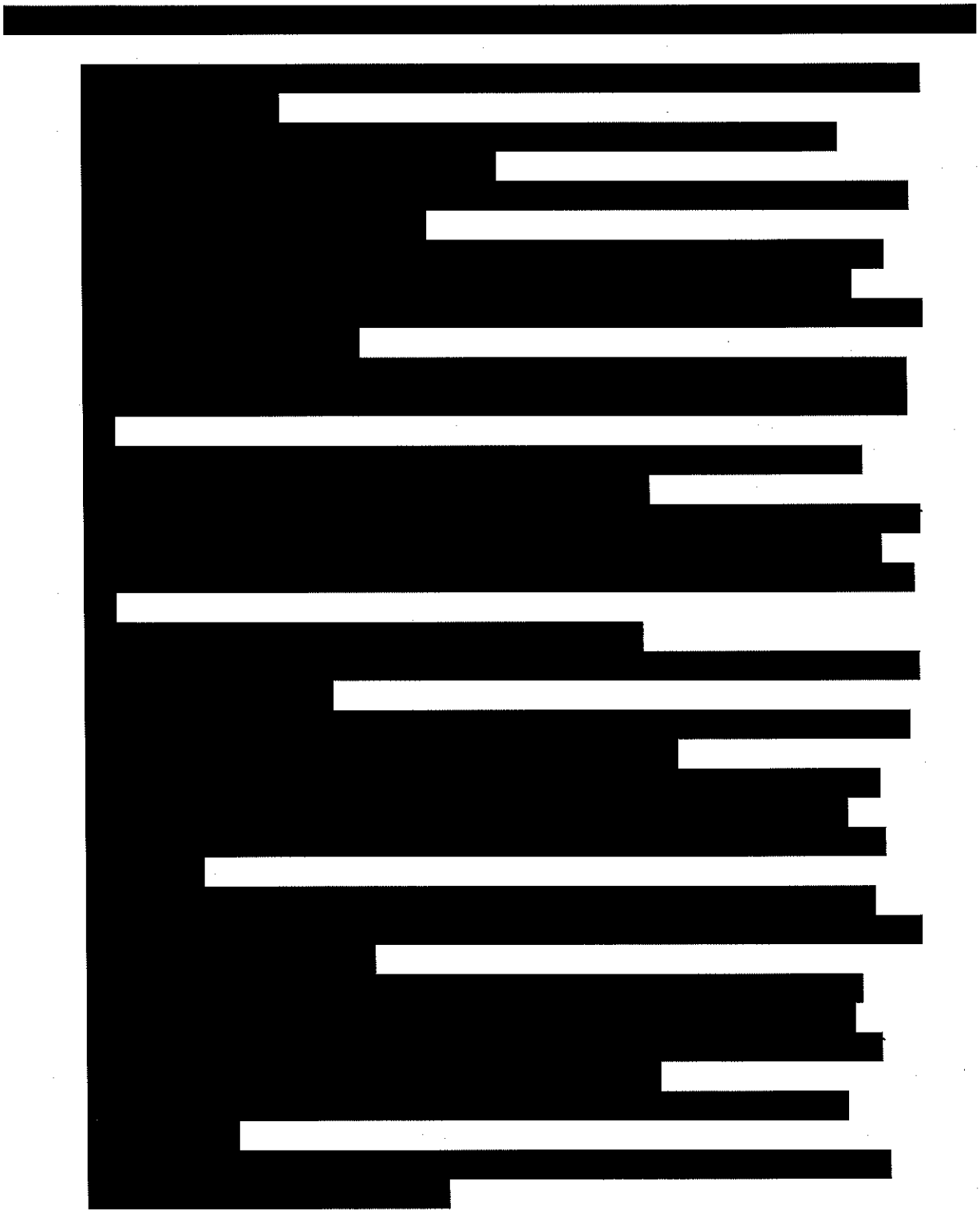
[41] Respondents concede that the only argument relevant to the JLM K022 waste (as opposed to the IFF Unitenes) is that it is not used to recover energy in the blast furnace. 40 C.F.R. § 261.2(c)(2)(i)(A).

[42] Respondents came late to several of the arguments they raise in this action – questions regarding the following were not posed to regulators by Respondents prior to the filing of the initial Complaint in this matter:

- the Unitenes are not a by-product, 40 C.F.R. § 261.2(c)(2)(i) at Table 1
- the Unitenes are not a commercial chemical product, 40 C.F.R. § 261.2(c)(2)(i) at Table 1, but if it is deemed to be a commercial chemical product, it is not fuel itself, 40 C.F.R. § 261.2(c)(2)(i)(C)
- the Unitenes are not used to produce a fuel or otherwise contained in fuels, 40 C.F.R. § 261.2(c)(2)(i)(B)

(a) Georgia Gulf/K022 Material

The first waste stream at issue was K022 material from a company named Georgia Gulf.



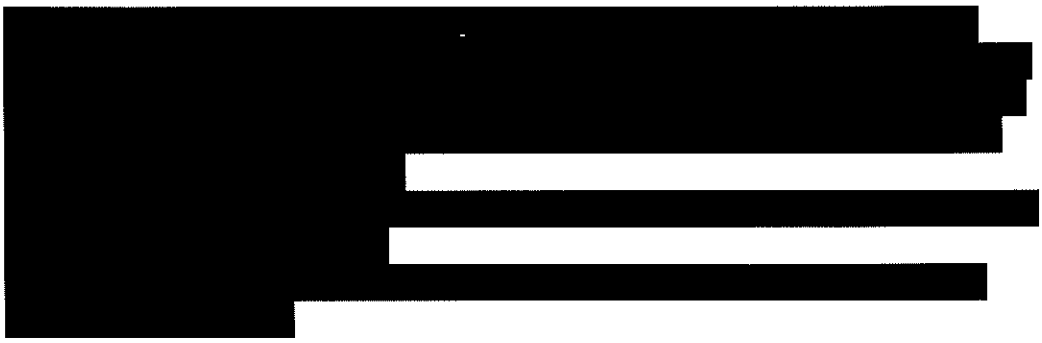
[redacted]

Respondents' knowledge of such specific aspects of the particular regulations in this matter is striking. The fact that Respondents essentially orchestrated the communications with regulators regarding *the very same theory* they are attempting to use in this case to exempt waste from the regulations, is undeniable. The actions outlined above clearly show that Respondents had sufficient knowledge or ability to properly characterize the JLM K022 and IFF Unitenes as hazardous waste, and manage them properly.

(b) Neville Chemical/Waste Oil From Wastewater Treatment and Contaminated Groundwater Extraction

The second waste stream at issue was waste oil from wastewater treatment and contaminated groundwater extraction from a company named Neville Chemical. [redacted]

[redacted]



Again, Respondents' knowledge of such specific aspects of the particular regulations in this matter is striking. The fact that Respondents again orchestrated the communications with regulators regarding *the very same theory* they are attempting to use in this case to exempt waste from the regulations, is undeniable. The actions outlined above clearly show that Respondents had sufficient knowledge or ability to properly characterize the JLM K022 and IFF Unitenes as hazardous waste, and manage them properly.

Finally, the Respondents were on notice that Unitene LE was hazardous *because IFF told them so in advance of shipping*. The LE D001 was shipped with a low flashpoint which qualified it as D001, a hazardous waste. CX29 at EPA16849-53 (MSDS provided by CIS to EPA during the EPA inspection of the CIS Facility showing a flashpoint of 118 degrees fahrenheit), EPA16854 (Certificate of Analysis provided by CIS to EPA during the EPA inspection of the CIS Facility showing a flashpoint of 118 degrees fahrenheit) and EPA16862-65 (MSDS provided by CIS to EPA during the EPA inspection of the CIS Facility showing a flashpoint range of 118-126 degrees fahrenheit). It is apparent that Respondents were aware of the hazardous nature of this material, because, [redacted]. *See also* Tr. 2207 (CIS

employee Robert Malecki stated [redacted]).

All evidence points to the fact that Respondents had sufficient knowledge or ability to properly characterize the JLM K022 and IFF Unitenes as hazardous waste, and manage them properly.

(2) Respondents Were Not Misled With Regard to the Nature of the Material

It is clear in this case that Respondents were not misled with regard to the nature of the material. In the case of JLM, [redacted]. In the case of IFF, Respondent Lofquist [redacted]

In addition, as noted above, the Unitene LE (D001) was shipped with a low flashpoint which qualified it as D001, a hazardous waste. CX29 at EPA16849-53 (MSDS provided by CIS to EPA during the EPA inspection of the CIS Facility showing a flashpoint of 118 degrees fahrenheit), EPA16854 (Certificate of Analysis provided by CIS to EPA during the EPA inspection of the CIS Facility showing a flashpoint of 118 degrees fahrenheit) and EPA16862-65 (MSDS provided by CIS to EPA during the EPA inspection of the CIS Facility showing a flashpoint range of 118-126 degrees fahrenheit). It is apparent that Respondents were aware of the hazardous nature of this material, because, as stated by Respondent Lofquist, [redacted]. *See also* Tr. 2207 (CIS

employee Robert Malecki states [redacted]). For the Respondents to assert that they were misled with regard to the nature of the material is disingenuous.

5. Penalty Conclusion

Using the numbers described above, the calculations used to obtain the total amount of $1,579,173 are:

COUNT 1	
Total gravity-based penalty:	$30,100
Total multi-day penalty:	$823,400
Adjustment to the sum of the gravity-based & multi-day penalty:	$42,675 (adjustment upwards)
Economic Benefit:	$131,061
Total for Count 1:	**$1,027,236**
COUNT 4	
Total gravity-based penalty:	$23,500
Total multi-day penalty:	$47,450
Adjustment to the sum of the gravity-based & multi-day penalty:	$3,548
Economic Benefit:	$0
Total for Count 4:	**$74,498**
COUNT 8	
Total gravity-based penalty:	$12,800
Total multi-day penalty:	$358,000
Adjustment to the sum of the gravity-based & multi-day penalty:	$18,540
Economic Benefit:	$51,664
Total for Count 8:	**$441,004**
COUNT 10	
Total gravity-based penalty:	$30,100
Total multi-day penalty:	$4,600
Adjustment to the sum of the gravity-based & multi-day penalty:	$1,735
Economic Benefit:	$0
Total for Count 10:	**$36,435**

As articulated in EPA's penalty calculation:

> When RCRA was enacted, Congress recognized the risks posed by the treatment, storage and disposal of large amounts of hazardous wastes at treatment, storage, or disposal facilities ("TSDFs"). Congress felt that TSDF management activities needed to be closely regulated to prevent spills, accidents, and mechanical failures. Furthermore, TSDFs are unique in that their owners and operators choose to enter the hazardous waste industry.

CX198 at EPA026818.

While each violation of RCRA and its implementing regulations is a concern, Count 1 reveals what is perhaps the most critical violation: the Respondents failed to acknowledge that they were subject to the applicable TSD regulations. By so doing, Respondents operated a facility which managed hazardous waste without the legal authority to do so, and thus failed to ensure that the hazardous waste was handled in a controlled manner which was protective of human health and the environment. As such, this Court should impose a substantial penalty on Respondents for Count 1, and that penalty should total at least $1,027,236, as indicated by the RCRA Civil Penalty Policy.

Count 4 is also important, since a lack of personnel training puts human health at risk. Count 8 is critical because EPA must have the ability, through RCRA and its financial assurance requirements, to prevent the creation of abandoned hazardous waste sites. Finally, Count 10 merits a substantial penalty because the land disposal requirement which Respondents violated meant that the next waste handler, in this case WCI Steel, was not informed as to whether and how the waste must be treated before it is land-disposed.

In conclusion, a significant penalty is appropriate in this case. The RCRA Civil Penalty Policy dictates a major penalty and justice demands it as well.

E. There is a Lack of Evidence to Support Respondents' Affirmative Defenses[43]

Respondents' raised seven separate defenses in Respondents' Answer to EPA's First Amended Complaint and Compliance Order (April 20, 2012). EPA filed a Motion to Strike Respondents' Affirmative Defenses (December 9, 2011), and after a response from Respondents and Reply from EPA, on February 14, 2012 the Court granted EPA's Motion as to the second and sixth[44] defenses. The Court denied the Motion as to the first, third, fourth, fifth and seventh defenses. The court noted the following:

- The first defense, that EPA has allegedly failed to join a party or parties necessary for the just and equitable adjudication of this matter, is only a defense as far a penalty is concerned – *not* liability. February 14, 2012 Order at 5-6.
- The third, fourth, and fifth defense are appropriately consolidated into one defense: selective enforcement. February 14, 2012 Order at 9.
- The seventh defense, that Respondents were allegedly without sufficient knowledge or ability to properly characterize the material in questions and/or were otherwise misled with respect to the nature of the material, is only a defense as far a penalty is concerned – *not* liability. February 14, 2012 Order at 13.

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[43] The Court inferred in its February 14, 2012, Order on Complainant's Motion to Strike Affirmative Defenses that Respondents may have a defense to liability available for allegations in the Complaint "based on events occurring before May 13, 2006". Order at p. 7. However, the Respondents signed several tolling agreements, whereby Respondents waived any defense of "laches, estoppels, or waiver, or other similar equitable defense based on the running of any statute of limitations" between November 19, 2010 and May 17, 2011 – meaning that Respondents have waived such a defense for allegations in the Complaint based on events occurring between November 19, 2005 and May 17, 2006. *See* CX32 at EPA16976, CX33 at 16979 and CX34 at EPA16982.

[44] The Sixth Defense was stricken as to Respondents Forster and Lofquist. The Respondents later withdrew the sixth defense as to Respondent CIS.

After the Court's February 14, 2012 Order, EPA filed a First Amended Complaint and Compliance Order (April 11, 2012). Respondents then filed an Answer to EPA's First Amended Complaint and Compliance Order (April 20, 2012).[45] In their second Answer, Respondents re-numbered the original defenses (eliminating the second defense from the first Answer) and added another defense. The new defenses, appearing in Respondents' second Answer, are listed below along with the results of the Court's February 14, 2012 Order:

1. Complainant has failed to join a party or parties necessary for the just and equitable adjudication of EPA's claims in this administrative proceeding (not a true affirmative defense but may be taken into account in determining the appropriate penalty, *See* discussion above). February 14, 2012 Order at 5-6. *See* Section V.D.4.a, above.
2. The Complainant's claims are barred on grounds that they were brought for improper motive, arise out of malice or ill will, and amount to an abuse of EPA's enforcement discretion (consolidated into single selective enforcement defense). February 14, 2012 Order at 9.
3. The Complainant's claims are stopped because they are arbitrary and capricious and inconsistent with other actions and inactions of EPA that involve the same products that are the subject of this administrative proceeding (consolidated into single selective enforcement defense). February 14, 2012 Order at 9.
4. Complainant's claims are barred by the doctrine of selective enforcement (consolidated into single selective enforcement defense). February 14, 2012 Order at 9.
5. Complainant's demand for the assessment of a civil penalty against CIS should be denied on grounds that CIS is not able to pay the penalty claimed. Withdrawn by Respondents in their Joint Pre-Hearing Brief filed June 1, 2012.
6. To the extent that Complainant's allegations are proven true (which Respondents deny), Respondents were without sufficient knowledge or ability to properly characterize the material in question and/or were otherwise misled with respect to the nature of the material (not a true affirmative defense but may be taken into account in determining the appropriate penalty). February 14, 2012 Order at 13. *See* Section V.D.4.b, above.

[45] A Second Amended Complaint and Compliance Order was filed on June 8, 2012, and under the terms of the Court's June 15, 2012 Order on Complainant's Second Motion for Leave to Amend Complaint, Respondents' Answer to EPA's First Amended Complaint and Compliance Order is also deemed to be the Respondents' Answer to the EPA's Second Amended Complaint and Compliance Order.

7. Complainant's claims regarding the single test shipment of K022 waste from JLM are barred by the fair notice doctrine. *Compare with* Respondents' original fair notice argument, stricken in the February 14, 2012 Order at 6-7.

In summary, there are two affirmative defenses related to liability remaining: selective enforcement and fair notice. On the burden of proof related to affirmative defenses, the Consolidated Rules provide that:

> The respondent has the burdens of presentation and persuasion for any affirmative defenses.

40 C.F.R. § 22.24. Each remaining affirmative defense is discussed below.

1. Second, Third and Fourth Defenses: EPA Did Not Employ "Selective Enforcement" in This Matter

As noted in the February 14, 2012 Order, the pleading requirements of Rule 22.15(b) had "barely been met" in the Respondents' first Answer (no changes were made to the relevant affirmative defense language in the second Answer) and the language of the defense as stated was "sufficiently clear" to allow EPA to respond as necessary. Order at p. 11. As the Court noted, "[t]he defense of selective enforcement is difficult to establish". Order at 9. The Court also stated:

> To raise a selective enforcement defense successfully, "the Respondent must show: (1) that Respondent has been singled out while other similarly situated violators were left untouched, and (2) that the EPA selected Respondent for prosecution invidiously or in bad faith, i.e., based upon such considerations as race, religion, or the desire to prevent the execution of Constitutional rights.

Order at 9, citing *In re: Ram, Inc.*, EPA Docket No. SWDA-06-2005-5301, 2008 EPA ALJ LEXIS 27, at *78 (July 12, 2008) (internal quotation marks omitted). Furthermore, "[o]ne who alleges selective prosecution or enforcement 'faces a daunting burden in establishing that the Agency engaged in illegal selective enforcement, for courts have traditionally accorded governments a wide berth of prosecutorial discretion in deciding whether, and against whom, to

undertake enforcement actions." *In re: Ram, Inc.*, RCRA (9006) Appeal Nos. 08-01 & 08-02, 2009 EPA App. LEXIS 18, at **34-35 (July 10, 2009) (citing *In re: B&R Oil Company, Inc.*, RCRA (3008) Appeal No. 97-3, 1998 EPA App. LEXIS 106 (Nov. 18, 1999)).

The Court further stated that "it is conceivable that evidence to support these Affirmative Defenses [comprising the "selective enforcement" affirmative defense] might emerge at the hearing during cross examination of Complainant's witnesses." Order at 11. However, this did not occur. Respondents did not even attempt to present evidence to support this defense. Respondents are unable to meet their burden of proof with regard to the selective enforcement defense.

2. Seventh Defense: EPA's Claims Regarding Shipment of K022 Waste From JLM Are *Not* Barred by the Fair Notice Doctrine

As noted above, Respondents first raised a fair notice affirmative defense in their first Answer. Their initial affirmative defense was stricken by the Court. *See* May 31, 2012 Order on Motions for Accelerated Decision at 30-31. In their second Answer, Respondents raised a second fair notice affirmative defense.[46] This second fair notice defense was briefed at the motion for accelerated decision phase of this case:

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[46] Notably, counsel for Respondents intimated that Respondents may no longer be raising a fair defense argument when this statement was made at hearing:

> We have reams of paper, e-mail communications, correspondence for, starting in April of '05 and going through almost through 2008 which demonstrate that the Respondents were very well aware of the recycling exclusion, its potential applicability. There doesn't seem to be any dispute or question about notice. Notice is not an issue in this case.

Tr. 521-21. *See* also Tr. 622-628.

- Response to EPA's Motion for Accelerated Decision (April 2, 2012) at Section F
- EPA's Reply to Response to EPA's Motion for Accelerated Decision (April 13, 2012) at Section II.F
- Respondents' Reply to EPA's Response to Respondents' Motion for Accelerated Decision (April 13, 2012) at Section E

EPA demonstrated in its April 13, 2012 Reply that not only did Respondents have fair notice, but they had actual notice of the meaning of the regulation. The Court concluded in its May 31, 2012 Order that "[a]lthough Complainant's references to the regulatory history and EPA guidance are thorough, and Complainant's argument may even prevail on this issue, it is not sufficient to bar Respondents' defense as a matter of law". Order at 31. The Court noted:

> If, as Respondents allege, the Louisiana DEP and Ohio EPA provided conflicting statement as [to] the applicability of the regulations to the actions Respondents were contemplating, this would certainly support an argument that there was "significant disagreement" among the various regulatory agencies.

Order at 31 citing *General Electric Co., v. EPA*, 53 F.3d 1324, 1330 (D.C. Cir. 1995).

However, the letter from Louisiana approving shipment of Georgia Gulf K022 to WCI Steel for a "steel production test" to "see if it is an appropriate carbon source for steel making" does not analyze whether or not the material is a solid waste under RCRA. CX2 at EPA2882-83; CX13 at EPA 10110-11. There is no mention of federal or state RCRA regulations. In fact, the only mention of regulations is a citation to Ohio air regulations: OAC § 3745-31-03(A)(3)(f) (pertaining to air permit exemptions and air permits-by-rule).[47]

[47] Notably, Louisiana withheld a final determination regarding the material at issue pending approval from Ohio. See [redacted].

Further, EPA respectfully refers this Court to the decision in *In re: General Motors Automotive - North America*, RCRA App. 06-02, 2008 EPA App. LEXIS 30, at **219-30 (June 20, 2008), where "[i]n light of the fact that Michigan is authorized to administer the portions of RCRA relevant to this case, GM contended below that EPA is bound by the State's interpretation of the law..." The EAB disagreed, and affirmed the ALJ's ruling that the State of Michigan's interpretation of RCRA (that the point of generation of a regulated "waste" occurs upon entrance of purge mixture into the purge mixture storage tanks) does not bar EPA from enforcing a contrary understanding within that State's boundaries. *Id.*, at **224-30. In this case, the interpretation in question is not even from an Ohio agency, but rather a Louisiana agency.

In light of the correspondence from Louisiana regarding Georgia Gulf K022 and the case law regarding contrary state and federal interpretations of RCRA regulations, it is clear that EPA's claims are not barred by the fair notice doctrine.

F. A Compliance Order Requiring Closure/Post-closure and Financial Assurance is Necessary

Respondents have stipulated to the fact that they have not achieved compliance with RCRA closure/post-closure and financial assurance is required in this matter. *See* April 9, 2012 Joint Stipulations as to Facts, Exhibits and Testimony, at Schedule A, facts 14-16. Closure/post-closure is necessary to ensure that there are no hazardous materials being left at the CIS Facility, now that it is closed. Financial assurance is necessary to ensure that the funds exist to accomplish closure and post-closure. Tr. 537-538. The record supports the issuance of a Compliance Order as requested in paragraph 94 of the Complaint:

> a. Respondents shall comply with all applicable closure and post-closure requirements in OAC §§ 3745-55-10 through 3745-55-20 [40 C.F.R. §§ 264.110-120] to the extent practicable given the current owner and operator of the Facility.
> b. If all applicable closure and post-closure requirements in OAC §§ 3745-55-10 through 3745-55-20 [40 C.F.R. §§ 264.110-120] are complied with by

Respondents, as directed in paragraph 94.a, above, Respondents shall comply with all applicable financial assurance requirements for closure in OAC § 3745-55-42 [40 C.F.R. § 264.142], and OAC § 3745-55-43 [40 C.F.R. § 264.143].

VI. CONCLUSION

The record supports the issuance of a Compliance Order and assessment of at least the $1,579,173 penalty requested by EPA in the Complaint, pursuant to Section 3008 of RCRA, 42 U.S.C. § 6928, and Section 22.37(b) of the Consolidated Rules.

Respectfully Submitted,

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10/12/12
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CONTAINS CONFIDENTIAL INFORMATION – SUBJECT TO PROTECTIVE ORDER

CERTIFICATE OF SERVICE

In the Matter of Carbon Injection Systems LLC, Scott Forster, and Eric Lofquist
Docket No. RCRA-05-2011-0009

I certify that the foregoing "Complainant's Initial Post-Hearing Brief", dated October 12, 2012, was sent this day in the following manner to the addressees listed below:

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10-12-12
Date

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