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 POST-HEARING REPLY BRIEF

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I. Introduction

The United States Environmental Protection Agency ("EPA") has proven that CIS treated and stored hazardous waste at its facility in Warren, Ohio, in violation of multiple regulations promulgated pursuant to the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901-6992k. Complainant's Initial Post-Hearing Brief. Specifically, EPA has proven that:

- CIS treated and stored three types of wastes (K022 from JLM as well as Unitene AGR and Unitene LE from IFF). *Id.* at pp. 65-66.
- The three types of wastes were both wastes ("solid wastes" under federal regulations) and hazardous wastes. *Id.* at pp. 12-65. [1]
- The three types of wastes were solid wastes because they were discarded material by being recycled under OAC § 3745-51-02(C)(2) [40 C.F.R. 261.2(c)(2)] (burning for energy recovery). *Id.* at pp. 44-59.
- Respondents Forster and Lofquist have direct officer liability for the violations. *Id.* at pp. 67-84.
- A penalty of at least $1,579,173 is appropriate in this case. *Id.* at pp. 93-111.
- A compliance order requiring closure/post-closure and financial assurance is necessary in this case. *Id.* at pp. 125-126.
- Respondents' affirmative defenses cannot defeat the liability of the Respondents. *Id.* at pp. 120-125.
- Respondents' affirmative defenses do not warrant a reduction in penalty. *Id.* at pp. 111-117.

In Respondents' Response, Respondents attack EPA's interpretation of various regulations, EPA's application of the facts to the law, and the evidence EPA presented in this case. Significantly, Respondents' Response fails to conform to this Court's explicit instructions that each brief should be a response to the previous brief, and this Court's August 1, 2012 Post-

[1] Respondents acknowledge that the K022 from JLM, if it can be characterized as a solid waste, was a hazardous waste. Respondents' Initial Joint Post-Hearing Brief ("Respondents' Response") at pp. 32-58 (only addressing whether Unitene AGR and Unitene LE are solid and hazardous wastes).

Hearing Scheduling Order, directing Respondents to file a "Responsive Post-Hearing Brief".[2] Respondents also fail to respond to many arguments contained in Complainant's Initial Post-Hearing Brief - perhaps as a matter of careless oversight, or perhaps in a calculated attempt to avoid those arguments which they know they cannot win. In addition, Respondents rely sparingly on the fundamentals of legal reasoning, that of precedent and analogy. Finally, Respondents repeatedly misrepresent evidence by repeatedly taking statements out of context. In response, EPA hereby incorporates Complainant's Initial Post-Hearing Brief and responds to the specific arguments made in Respondents' Response below. The thorough response to the points raised in Respondents' Response detailed below shows that EPA has in fact proven its prima facie case, that the defenses raised by Respondents cannot defeat the liability of the Respondents and do not warrant a reduction in penalty, that a penalty of least $1,579,173 is appropriate in this case, and that a compliance order requiring closure/post-closure and financial assurance is necessary in this case.

II. Liability

A. Respondents Cannot Meet Their Burden Under OAC § 3745-51-02(f) [40 C.F.R. § 261.2(f)] To Show The Material Meets the "Waste"/"Solid Waste" Exemption In OAC § 3745-51-02(E) [40 C.F.R. § 261.2(e)]

EPA has established its prima facie case that the material that CIS blended and sold to WCI was a "waste" ("solid waste" under federal regulations) and a "hazardous waste" OAC § 3745-51-02(C)(2) [40 C.F.R. § 261.2(c)(2)]. Complainant's Initial Post-Hearing Brief at pp. 12-59. However, Respondents disagree. First, they posit that they are not liable by arguing that the JLM and IFF material is exempt from the definition of "waste" because it is an ingredient in an industrial process to make a product under OAC § 3745-51-02(E)(1)(a) [40 C.F.R. §

[2] Respondents also failed to comply with the filing requirements of 40 CFR § 22.5(d).

261.2(e)(1)(i)] and was not burned for energy recovery under OAC § 3745-51-02(E)(2)(b) [40 C.F.R. § 261.2(e)(2)(ii)]. Respondents are wrong.

Respondents *do* correctly state that under OAC § 3745-51-02(F) [40 C.F.R. § 261.2(f)] *they* have the burden of demonstrating that the waste in question meets the exemption at OAC § 3745-51-02(E)(1)(a) [40 C.F.R. § 261.2(e)(1)(i)], and 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.[3] OAC § 3745-51-02(F) [40 C.F.R. § 261.2(f)] requires that Respondents must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exemption they seek to apply. Thus, Respondents have the burden of proving that the JLM and IFF material *was not* burned for energy recovery and *was* an ingredient in an industrial process to make a product when it was burned in WCI's iron making blast furnace as a coke substitute. OAC § 3745-51-02(E)(1)(a) and (2)(b) [40 C.F.R. § 261.2(e)(1)(i) and (2)(ii)]. However, they have not met this burden, and thus the JLM and IFF material is regulated as a waste under OAC § 3745-51-02(C)(2) [40 C.F.R. § 261.2(c)(2)].

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[3] The demonstration needed to meet this burden requires tangible proof. *In re Zaclon, Inc., et al.*, Docket No. RCRA-05-2004-0019, 2006 EPA ALJ LEXIS 24, at *46 (May 18, 2006)("Respondents have not pointed to any documentation of other persons using stripping acid as an ingredient in a production process. Respondents have not provided '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.' 40 C.F.R. § 261.2(f).").

1. The JLM and IFF Material Was Burned for Energy Recovery in the WCI Blast Furnace, Thus Respondents Cannot Show The Material Meets the "Waste"/ "Solid Waste" Exemption In OAC § 3745-51-02(E) [40 C.F.R. § 261.2(e)]

Respondents first argue that their hazardous waste blend was excluded from the definition of solid waste by virtue of the recycling exemption because it was not "burned for energy recovery" when it was used as an injectant in WCI's iron making blast furnace. OAC § 3745-51-02(E)(2)(b) [40 C.F.R. § 261.2(e)(2)(ii)]. To reach this conclusion, Respondents attempt to add criteria to the plain meaning of "burning for energy recovery". Rather than rely on the plain regulatory language of OAC § 3745-51-02(E)(2)(b) [40 C.F.R. § 261.2(e)(2)(ii)], Respondents assert that burning for energy recovery "means burning for the *purpose of obtaining useful heat energy* or burning that provides *substantial useful heat* energy." Respondents' Response at p. 9. Respondents then advance the position that the IFF material produced no "substantial" and "purposeful" heat energy when it was burned in CIS' blast furnace.[4]

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[4] Respondents state in their Response that the Presiding Officer has correctly noted, if the injectants sold by CIS to WCI were not "combusted for *heat* energy in the blast furnace," or were "incorporated as ingredients in an industrial process into the metallic iron produced by WCI" . . . the recycling exclusion . . . is applicable and no RCRA violation occurred. Respondents' Response at pp. 15-16. Respondents' citation to the Court's May 18, 2012 Order on Motions for Accelerated Decision is misleading, because it leave the impression that the Court has ruled that the meaning of the term "energy" as it is used in OAC 3745-51-02(E)(2)(b) [40 C.F.R. § 261.2(e)(2)(ii)] is confined to "heat energy." Instead of constituting a decision on the meaning of the term "energy," the Court made clear that it was merely "distilling" "the dispute between the parties over burning for energy recovery . . . into a question of chemistry." Order on Motions

Respondents conclude by asserting that the Presiding Officer need not defer to EPA's interpretation of the phrase "burning for energy recovery" as it is used in OAC § 3745-51-02 [40 C.F.R. § 261.2]. Only by first departing from the standard rules used by Courts to evaluate an agency's interpretation of its own regulations and next departing from the standard rules of deference used by Courts to evaluate an agency's regulations are Respondents able to find support for their position. The bottom line, however, is that EPA's interpretation of its regulations is entitled to deference, and under EPA's interpretation Respondents have not met their burden of demonstrating that a recycling exemption applies to their material.

a. *Howmet* Provides the Appropriate Framework for Regulatory Interpretation in this Matter

The Environmental Appeals Board ("EAB") recently provided a roadmap for regulatory construction that is applicable to this case. In 2007, the EAB decided the appeal of a case that turned on the meaning of the term "spent material" as defined in 40 C.F.R. § 262.1. *In re Howmet Corporation,* RCRA (3008) Appeal No. 05-04, 2007 EPA App. LEXIS 19 (May 24, 2007), *aff'd, Howmet Corp. v. EPA*, 656 F. Supp.2d 167 (D.D.C. 2009), *aff'd, Howmet Corp. v. EPA*, 614 F.3d 544 (D.C. Cir. 2010).[5] Although *Howmet* involved the interpretation of the

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for Accelerated Decision at p. 28. Framing an issue for resolution is a far cry from resolution of that issue.

[5] *Howmet* addresses two major issues: (1) whether the respondent had liability because the material was "spent" under RCRA and (2) if the material was "spent", whether respondent had fair notice that EPA was interpreting the relevant regulations so as to regulate the respondent's material in particular. *In re Howmet Corporation,* RCRA (3008) Appeal No. 05-04, 2007 EPA App. LEXIS, at * 26. See Section III., below, for a discussion of the fair notice aspect of

meaning of the term "spent material," and this case turns on the meaning of the term "burned for energy recovery," the EAB's framework for regulatory analysis applies here.

As background, respondent Howmet used potassium hydroxide ("KOH") as a cleaning agent for metal castings at its facilities. When the KOH became too contaminated for this use without reclamation or reprocessing, Howmet would ship the used KOH either to a permitted hazardous waste treatment, storage or disposal facility, or to a fertilizer manufacturer for use as a fertilizer ingredient. Howmet did not handle the used KOH that it sent to the fertilizer manufacturer according to RCRA's hazardous waste regulations. The Administrative Law Judge ("ALJ") ruled that this violated RCRA and its implementing regulations. The ALJ based his conclusions on a finding that the used KOH sent to the fertilizer manufacturer was a "spent material" and, therefore, was subject to RCRA's hazardous waste management regulations. Howmet appealed the Initial Decision, arguing that, contrary to the ALJ's findings, the used KOH in question was not "spent material," and therefore was not hazardous waste subject to the RCRA regulations. The parties stipulated to the facts in *Howmet*, so no facts were at issue on appeal – only the meaning of the term in the regulation. Because the materials in question in *Howmet* exhibited the hazardous characteristic of corrosivity, and would, therefore, be regulated as hazardous waste if deemed solid waste in the first instance, the outcome of the appeal hinged on whether the materials in question were "spent" and, therefore, solid waste. *Id.* at *13.

To determine the meaning of the term "spent material," the EAB provided a step by step process for regulatory interpretation:

Howmet.

> As we have explained in previous cases, "[w]hen construing an administrative regulation, the normal tenets of statutory construction are generally applied." *In re Bil-Dry Corp.*, 9 E.A.D. 575, 595 (EAB 2001) (citing *Black & Decker Corp. v. Comm'r*, 986 F.2d 60, 65 (4th Cir. 1993)). "The plain meaning of words is ordinarily the guide to the definition of a regulatory term." *Id.* (citing *T.S. v. Bd. of Educ.*, 10 F.3d 87, 89 (2d Cir. 1993)). "Additionally, the regulation must, of course, be 'interpreted so as to harmonize with and further and not to conflict with the objective of the statute it implements.'" *Id.* (quoting *Sec. of Labor v. W. Fuels-Utah, Inc.*, 900 F.2d 318, 320 (D.C. Cir. 1990)). Moreover, in interpreting a regulation, we examine not just the provision at issue, but the entire regulation. *In re U.S. Army, Fort Wainwright Cent. Heating & Power Plant*, 11 E.A.D. 126, 141 (EAB 2003) ("'The meaning—or ambiguity—of certain words or phrases may only become evident when placed in context.'") (quoting *Food & Drug Admin. v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 132 (2000)). *See generally In re Harpoon P'ship*, TSCA Appeal No. 04-02, slip op. at 17-21, 12 E.A.D. ___, *appeal dismissed, Harpoon P'ship v. EPA*, No. 05-2806 (7th Cir., Aug. 24, 2005). *Cf. United States Nat'l Bank of Or. v. Indep. Ins. Agents of Am.*, 508 U.S. 439, 455 (1993) ("In expounding a statute, we must not be guided by a single sentence or member of a sentence, but look to the provisions of the whole law * * *.") (citations omitted). Moreover, just as legislative history can be helpful in interpreting a statute, regulatory history, such as preamble statements, assists us in interpreting regulations. *See In re Morton L. Friedman & Schmitt Const. Co.*, 11 E.A.D. 302, 328 (EAB 2004), *aff'd, Friedman v. United States Environmental Protection Agency*, No. 2:04-CV-00517-WBS-DAD (E.D. Cal. Feb. 25, 2005). Last, we give greater deference to a position when it is supported by Agency rulings, statements, and opinions that have been consistent over time. *See In re Lazarus, Inc.*, 7 E.A.D. 318, 352-53 (EAB 1997).

Id. at **26-29.

With this framework, in evaluating whether the used KOH sent to the fertilizer manufacturer was a "spent material," the EAB (1) reviewed RCRA's general approach to recyclable materials and how the RCRA program approached the more specific question of regulating spent materials and the use of secondary materials as fertilizers (*Howmet*, 2007 EPA App. LEXIS 19, at **30-49) and (2) whether the used KOH was "spent." In looking at the second factor, the EAB considered (a) the language of the regulatory definition of "spent material" (*Id.* at **55-61); (b) whether Howmet's interpretation of the term was consistent with the regulations as a whole (*Id.* at *61); (c) the guidance provided by the rule-making history (*Id.* at **61-69); and (d) EPA's prior interpretations of the "spent material" definition (*Id.* at **69-

75). Using this framework, the EAB held that Howmet's materials were spent materials within the meaning of the regulations, and that this conclusion was not only consistent with the regulatory text, as well as RCRA and EPA's overall approach to recyclable materials, but also took into account Congress's concern that activities that are part of "the waste disposal problem" are regulated. *Id.* at **75-76. The EAB concluded that Howmet's argument, if accepted, would drive a wedge into the regulatory framework that was irreconcilable with other elements of the regulation and RCRA's overall thrust. *Id.* at 76.

On appeal, the United States Court of Appeals for District of Columbia Circuit (the "D.C. Circuit") adopted and followed the EAB's structure and approach for interpretation of regulatory language, and affirmed the EAB's decision. *Howmet Corp. v. EPA*, 614 F.3d 544 (D.C. Cir. 2010). In upholding the EAB, the D.C. Circuit first concluded that the phrase "spent material" as used in the regulation was ambiguous, and that dictionary definitions did little to resolve the ambiguity. *Howmet*, 614 F.3d at 549-550. The D.C. Circuit then examined whether EPA's interpretation of the definition is reasonable. *See, e.g.*, *Gorman v. NTSB*, 558 F.3d 580, 589 (D.C.Cir.2009) (explaining this court must uphold an agency's interpretation of an ambiguous regulation if reasonable); *Devon Energy Corp. v. Kempthorne*, 551 F.3d 1030, 1037 (D.C.Cir.2008). *Howmet*, 614 F.3d at 550. The D.C. Circuit explained that in examining whether EPA's interpretation of the definition is reasonable, it "look[s] to the EPA's overall regulatory framework under RCRA, as well as the regulatory history of the Agency's 'spent material' definition. Both establish the EPA's interpretation is reasonable and consistent with the Agency's prior interpretations." *Id.* at 550. Based on its review of the regulatory history of EPA's definition, and the overall purpose of RCRA, the D.C. Circuit concluded:

> Having determined the Agency's interpretation is reasonable, we need not evaluate the reasonableness of Howmet's proposed interpretation. Once it is established that an agency has adopted a reasonable interpretation of an ambiguous regulation, the agency's interpretation stands even if a regulated entity has proposed an interpretation that might comport with the statutory scheme equally well or even better.

Id. at 553.

Using the *Howmet* framework here, the conclusion must be that a recycled material is subject to regulation as provided at OAC § 3745-51-02(C)(2) [40 C.F.R § 261.2(c)(2)] when that material is recycled by being burned for energy recovery. Further, as explained in II.A.2, below, "even if" the material is recycled by being used or reused as an ingredient in an industrial process to make a product as provided by OAC § 3745-51-02(E)(1)(a) [40 C.F.R § 261.2(e)(1)(i)], that exclusion does not apply when that material is burned for energy recovery as provided by OAC § 3745-51-02(E)(2)(b) [40 C.F.R § 261.2(e)(2)(ii)]. Accordingly, when the IFF materials were burned in the WCI blast furnace for energy recovery those materials were a "waste" and did not qualify for the recycling exclusion.

i. RCRA Approach to Recyclable Material and EPA's Regulatory Coverage of "Burned For Energy Recovery"

Under the first *Howmet* factor, both RCRA's general approach to recycled materials, and EPA's approach to materials "burned for energy," indicate the intent of EPA to regulate the materials sold by CIS to WCI for use as injectants in WCI's iron making blast furnace. As the EAB has pointed out, there is little question about EPA's general authority and mandate to regulate recyclable waste materials. *Howmet*, 2007 EPA App. LEXIS 19, at *32. Indeed, Congress made it clear when it enacted the Hazardous and Solid Waste Amendments of 1984, Pub. L. No. 98-9 ("HSWA"), that its concerns with the management of hazardous wastes applied

with equal force to recyclable materials. The following passage from HSWA's legislative history is instructive in this regard:

> This section of the Bill amends Section 3001 of RCRA to require the Administrator to issue regulations regarding use, reuse, recycling, and reclamation of hazardous wastes. * * * The Committee affirms that RCRA already provides regulatory authority over these activities (which authority the Agency has exercised to a limited degree) and in this provision is amending to clarify that materials being used, reused, recycled, or reclaimed can indeed be solid and hazardous wastes and that these various recycling activities may constitute hazardous waste treatment, storage, or disposal. * * * *The committee is particularly concerned with possible harm caused by hazardous waste use and reuse involving direct introduction of hazardous wastes to the air* or direct application of hazardous wastes to the land.

H.R. Rep. No. 98-198(I), at 46 (1984), *reprinted in* 1984 U.S.C.C.A.N. 5576, 5605 (emphasis added). This concern is reflected in RCRA, with Congress stating that "inadequate and environmentally unsound practices for the disposal or use of solid waste have created greater amounts of air and water pollution and other problems for the environment and health." 42 U.S.C. § 6901(b)(3). There is, however, a "tension between, on the one hand, prophylactic regulation of recyclables in order to protect the public and the environment from the serious consequences of mismanagement of such materials, and, on the other hand, not inhibiting through such regulation the beneficial recycling and legitimate reuse of such material." *Howmet*, 2007 EPA App. LEXIS 19, at *32. EPA has generally resolved this tension through a series of categorical inclusions and exclusions, based in part by an assessment of whether a given material is inherently waste-like or product-like, and in part by consideration of the environmental risks associated with the reuse scenario. As stated in *Howmet*, "[i]n the delta between the categorical inclusions and exclusions, the Agency determined to approach the question of regulatory applicability on a case-by-case basis." *Id.* at *33. EPA explained in the preamble to the final rule adopting the definition of solid waste and the exclusions for recycled materials (and the exceptions to the exclusion): "in most cases one must know both what the

material is and how it is being recycled before determining whether it is a waste." 50 Fed. Reg. 614-01, 617 (Jan. 4, 1985). In *Howmet*, the EAB distilled from this backdrop the following:

> [W]e note the recognition by Congress and the Agency that recyclable materials can themselves, if improperly managed, present significant risks to public health and the environment. Second, we note Congress's strongly articulated concern regarding waste management pathways that result in applications to land. Third, we note the D.C. Circuit's litmus test for assessing the regulatory status of recyclable materials - have they become "part of the waste disposal problem?"

Howmet, 2007 EPA App. LEXIS 19, at **36-37.

In light of Congress's concern over improper management of materials that are recycled, EPA proposed to address materials that are recycled by being burned for energy recovery in 1983. In the preamble to the proposed rules regarding the recycling exemption and its exclusions, EPA wrote:

> [S]pent materials, sludges, byproducts, and commercial chemical products are considered to be solid wastes when they are recycled in any one of the following ways:
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> (2) Burned for energy recovery (including when burned as a component of a waste-derived fuel), or used to produce a fuel; this provision applies to all spent materials, sludges, and listed by-products. It also applies to commercial chemical products (and related materials) burned as fuels in lieu of their intended use. . . .

48 Fed. Reg. 14472, 14476-14477 (Aprl. 4, 1983). The Agency continued to explain its intent by noting that:

> [t]he Agency has concluded that the statute gives EPA the authority to regulate burning of hazardous waste to recover energy, and that we should exercise this authority. In most cases, such burning is environmentally identical to burning the same material in an incinerator and could pose a parallel or greater risk of environmental dispersal of hazardous waste constituents and products of incomplete combustion.[FN12]
>
> FN12 In fact, there is a parallel here with the class of waste whose reuse constitutes disposal in the sense of direct land placement. In that case, the reuse is the functional equivalent of landfilling. Similarly, burning wastes as fuels is functionally identical to incinerating them.

> Furthermore, by allowing burning to go uncontrolled, the Agency's existing regulations create a loophole in the RCRA regulatory structure, as more and more wastes that can be burned are channeled to boilers or heat-recovery units to avoid disposal or incineration costs. It is estimated that 20 million metric tons of hazardous waste are currently burned in boilers. (See H.R. Rep. No. 97-570, 97th Cong., 2d sess. at 4 (1982).).

Id. at 14,481-14,482. Significant to this case, EPA went on to explain in the preamble as follows:

> *D. Proposed §§ 261.2(a)(2)(ii) and 261.6(b)(1)(v): Wastes That Are Burned to Recover Energy, Are Used to Produce Fuels, or Are Contained in Fuels*
>
> This provision indicates that spent materials, sludges, listed by-products, and any commerical [sic] chemical products (and related materials, such as off-specification variants and spill residues) listed in 40 CFR 261.33 that are not themselves fuels, are solid wastes when they are burned as fuels, used to produce fuels, or contained in fuels. EPA's reasons for asserting jurisdiction over these materials have been described in Section IV. D. above.[FN19]
>
> > FN19 In interpreting this provision, the Agency does not consider materials to be burned as fuels when both material values and energy are recovered from burning a single material, and material recovery is an important part of the recovery operation. For example, furnaces burning secondary materials to recover economically significant amounts of contained chemicals, and that also recover energy from the same materials, are not considered to be burning the materials as fuels.

Id. at 14485. As explained below, the footnote 19 carve out from the definition of solid waste provided for furnaces burning secondary materials to recover economically significant amounts of contained chemicals, and that also recover energy from the same materials contained in the preamble to the proposed rule was later expressly rejected and withdrawn.

Evidence of EPA's intent to regulate material like CIS's, when burned in an iron making blast furnace like WCI's, is found in the preamble to the final rule adopting the definition of solid waste and the recycling exemption and its exclusions. 50 Fed. Reg. 614 (Jan. 4, 1985). In the opening to preamble to the final rule EPA stated that:

> [u]nder Subtitle C of RCRA, EPA is granted the authority to regulate hazardous wastes. Hazardous wastes, however, are defined in the statute as a subset of "solid waste." (See

> Sections 1004(5) and 1004(27).) It thus is necessary to define what a solid waste is in order to determine the extent of EPA's jurisdiction under Subtitle C.
>
> On April 4, 1983, EPA proposed to amend the existing regulatory definition of solid waste. See 48 FR 14472. The proposal defined which materials were solid wastes when disposed of, burned, incinerated, or recycled. The greater part of the proposal dealt with the question of which materials are solid wastes when recycled—the area where the extent of the Agency's authority is not explicit on the face of the statute. EPA also proposed regulatory standards for various types of hazardous waste recycling activities, with the standards varying according to the type of activity.

50 Fed. Reg. at 615. With respect to the definition of solid waste, the recycling exemption, and its exclusions, EPA explained:

> The revised definition of solid waste states that any material that is abandoned by being disposed of, burned, or incinerated—or stored, treated, or accumulated before or in lieu of these activities—is a solid waste. The remainder of the definition states which materials are wastes when recycled.
>
> The amended definition adopts the approach that for secondary materials being recycled, one must know both what the material is and how it is being recycled before determining whether or not it is a Subtitle C waste. This approach differs sharply from the existing definition (40 CFR 261.2), which states that all sludges, and virtually all other secondary materials (i.e. all those that are sometimes discarded by anyone managing them (see fn. 2 above)), are wastes no matter how they are recycled. In understanding the revised definition, therefore, one must consider the types of secondary materials in conjunction with types of recycling practices.
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> *1. Types of Recycling Activities That Are Within The Agency's Subtitle C Jurisdiction.* The definition states that four types of recycling activities are within EPA's jurisdiction:
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> Burning waste or waste fuels for energy recovery, or using wastes to produce a fuel;
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> ***
>
> *3. Secondary Materials That Are Subtitle C Wastes When Recycled in Particular Ways.* As we indicated in the proposal, sludges and by-products sometimes are difficult to characterize as wastes or non-wastes when they are reclaimed. 48 FR 14476. Many by-products and sludges in the mining industry, for example, are routinely processed further to recover usable metals in a manner much like continued processing of the virgin ore. As stated above, neither the Agency nor any commenter could devise a self-implementing narrative standard that convincingly distinguishes between product-like and waste-like sludges and by-products being reclaimed.

> The Agency thus has structured the final regulation so that the Agency must evaluate these materials individually before determining whether they are subject to RCRA jurisdiction when they are to be reclaimed. Thus, in the final regulation, only sludges and by-products listed in 40 CFR 261.31 and 261.32 are solid wastes when reclaimed.[footnote omitted]
>
> The Agency does not perceive this difficulty for the remaining types of recycling over which we have jurisdiction. Thus, *all secondary materials (i.e. all spent materials, sludges, by-products, and scrap metal) are considered to be wastes when they* are used in a manner constituting disposal, *are burned for energy recovery* or used to produce a fuel, or are accumulated speculatively.

50 Fed. Reg. at 618-619 (emphasis added).

In the final rule, EPA addressed materials that are a solid waste when they are recycled by being burned for energy recovery through adoption of 40 C.F.R. § 261.2(c)(2) and 40 C.F.R. § 261.2(e). In this regard EPA stated:

> These provisions are among the most important in the regulation, and are integrally related to other regulations proposed or being developed by the Agency. We noted in Section II.B. above that much 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.
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> ***
>
> *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. *In taking this view, we thus reconsider and withdraw footnote 19 of the preamble to the proposed rule where we said we would count materials burned in industrial furnaces for both energy and material recovery as being burned for material recovery.* For the reasons given above, we think that was a mistaken idea.
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> The following examples indicate which secondary materials are wastes when burned for energy recovery.
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> Facility C burns an unlisted EP toxic by-product in its boiler to recover both materials and energy.
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> C is considered to be burning a hazardous waste for energy recovery, since secondary materials burned for a dual recycling purpose in boilers are considered for jurisdictional purposes to be burning for energy recovery. This answer assumes that sufficient energy and material values are recovered so that the waste is not being burned for destruction.
>
> Facility D burns the same by-product in an industrial furnace to recover both energy and materials.
>
> *D is considered to be burning a hazardous waste, even though the waste is an unlisted by-product, and even though there is some material recovery.* Unlisted by-products burned for energy recovery in any type of combustion unit are defined as solid wastes. *If D were burning exclusively for material recovery—for example if D operated a smelting furnace burning to recover metal—the material would not be a solid waste since it would be an unlisted by-product being reclaimed.*

50 Fed. Reg. at 630-631 (emphasis added).

ii. The JLM and IFF Material Was "Burned for Energy Recovery"

As discussed in the above discussion regarding whether a material was "spent", the EAB in *Howmet* also looked to four factors to determine the meaning of RCRA regulatory language: plain meaning of the regulatory text; regulations as a whole; regulatory history, and; EPA rulings/statements/opinions over time. These four factors are examined below to show that the JLM and IFF material was in fact "burned for energy recovery".

a) Plain Meaning of the Regulatory Text

Using the framework provided by the EAB in *Howmet*, the first step in answering the question of whether the IFF material was a solid waste (and remained a solid waste despite its arguable reuse as an ingredient in iron making), because it was burned for energy recovery, is to look at the regulatory text to see if its meaning is clear on its face in terms of its application to the CIS material. Neither the term "burn" nor the term "energy recovery" is defined in the regulation. In common use, however, the IFF material was "burned" for "energy recovery" when it was used as an injectant in WCI's blast furnace.

The Merriam-Webster dictionary includes the following definitions for "burn" when used as an intransitive verb:

> 1 *a* : to consume fuel and give off heat, light, and gases <a small fire *burns* on the hearth>
> *b* : to undergo combustion; *also* : to undergo nuclear fission or nuclear fusion

Merriam-Webster Dictionary, http://www.merriam-webster.com/dictionary/burn.

The noun "energy" is defined by Merriam-Webster dictionary as "4 : usable power (as heat or electricity); *also* : the resources for producing such power." Merriam-Webster Dictionary, http://www.merriam-webster.com/dictionary/energy.

Finally, "recovery" is understood to mean "1 : the act, process, or an instance of recovering; *especially* : an economic upturn (as after a depression)". Merriam-Webster Dictionary, http://www.merriam-webster.com/dictionary/recovery. Its synonyms include "recapture" and "reclamation. *Id.*

Frederick Rorick, Dr. Joseph Poveromo, and EPA's blast furnace expert, Professor Fruehan, all agreed that oil injected and combusted (or burned[6]) in an iron-making blast furnace

[6] "Burning" is not a scientific term but is related to combustion in that burning is the

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. Further, 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. 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.

Professor Fruehan succinctly summed things up with respect to the concept of burning and energy recovery when he explained:

> 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.

"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.

> 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.

As the forgoing demonstrates, when the IFF material was injected into the CIS blast furnace, the IFF material was "burned" for "energy recovery." This conclusion is consistent with the plain language of the regulation, as well as how the terms are commonly used and understood, and as used and understood by the witnesses in this case.

b) Regulations as a Whole

If the Court determines that meaning of the term "burning for energy recovery" cannot be determined based on the regulatory language, the dictionary definitions, and the use of the terms by the witnesses in this case, then it is appropriate to look to OAC § 3745-51-02 [40 C.F.R. §

261.2], as a whole, to see if it offers any interpretative guidance, as directed by *Howmet*, 2007 EPA App. LEXIS 19, at **61-69.

In this regard, with respect to the regulation of solid waste material, the overall thrust of OAC § 3745-51-02 [40 C.F.R. § 261.2] demonstrates an intention to regulate as solid waste materials that are burned or incinerated. *See* OAC §§ 3745-51-02(B)(2); (C)(2); and (E)(2)(b) [40 C.F.R. §§ 261.2(b)(2); 261.2(c)(2); and 261.2(e)(2)(ii)]. Throughout the first twenty-six pages of their Initial Post Hearing Brief, Respondents, however, argue for an interpretation of "burning for energy recovery" that requires the production of "substantial and purposeful heat energy" as a result of the combustion, and that attempts to discredit the idea that the energy can take the form of chemical energy as well as heat energy. The terms "substantial," "purposeful," and "heat" appear nowhere in the plain language of the regulations defining solid waste and providing the exclusion to the recycling exemption from the definition. Respondents then argue that their material did not produce "substantial and purposeful heat energy" when it was burned in WCI's blast furnace.

Assuming Respondents are right, and that the phrase "burned for energy recovery" requires "substantial and purposeful heat energy," then Respondents' material was still a solid waste when it was used as an injectant in a blast furnace. The fact is that 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. Indeed as Dr. Poveromo explained:

Q. You talked about the hot air blast coming in at the tuyere level?

A. Yes.

Q. How is the hot air blast initially heated?

A. In the stoves.

Q. And where does the heat in the stoves come from?

A. It's basically a combustion process, so a stove burner at the bottom of the stove heats up the stove.

Q. What's fueling the stove?

A. It could be the blast furnace top gas, it could be natural gas? It can be coke oven gas depending on the individual plant configuration.

Q. So the top gas can be used to fuel the --

A. Of course in any steel plant the blast furnace top gas is considered a valuable plant fuel to be used wherever it can be most effectively used, the stoves, rolling mills, the coke oven gas under firing, so forth.

Tr. at 2570-71. Thus, the capture and use of the top gases is purposeful and provides substantial heat energy used in the operation of the blast furnace and elsewhere in the plant. If the heat energy was not substantial, then it would not warrant capture and reuse, and would instead be released. Accordingly, injectants, like Respondents' materials, are "burned for energy recovery" even under their own interpretation.

c) Regulatory History

As discussed above, both Congress and EPA expressed intention to regulate the very activity that Respondents now argue should be outside of regulation. In this regard, it worth repeating the following from the preamble to the final rule:

> These provisions are among the most important in the regulation, and are integrally related to other regulations proposed or being developed by the Agency. We noted in Section II.B. above that much 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.

***

> 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 . . . . *In taking this view, we thus reconsider and withdraw footnote 19 of the preamble to the proposed rule where we said we would count materials burned in industrial furnaces for both energy and material recovery as being burned for material recovery.* For the reasons given above, we think that was a mistaken idea.
>
> ***
>
> The following examples indicate which secondary materials are wastes when burned for energy recovery.
>
> ***
>
> Facility D burns an [unlisted EP toxic] by-product in an industrial furnace to recover both energy and materials.
>
> D is considered to be burning a hazardous waste, even though the waste is an unlisted by-product, and even though there is some material recovery . . . .

50 Fed. Reg. at 630-31 (emphasis added). In light of the expressed intent of Congress and EPA to regulate as solid waste material that is recycled by being burned for energy recovery, even if there is material recovery, Respondents' position is untenable, and they cannot meet their burden under OAC § 3745-51-02(F) [40 C.F.R. § 261.2(f)] of proving entitlement to the recycling exclusion provided at OAC § 3745-51-02(E) [40 C.F.R. § 261.2(e)].

d) EPA Rulings/Statements/Opinions Over Time

In the Federal Register preamble to the final used oil regulations and boiler and industrial furnace regulations (the "Used Oil and BIF Regulations"), EPA provided an interpretation of the operation of the definition of solid waste, the recycling exemption for material used in an industrial process to make a product, and the exclusion from the exemption triggered when that material recovery includes burning for energy recovery as those concepts apply to the burning of

injectants in a blast furnace. 50 Fed. Reg. 29164 (November 29, 1985). This preamble was published, and these rules issued, after 40 C.F.R. §§ 261.2(b)(2) and 261.2(e) were promulgated. As such, the preamble to the Used Oil and BIF Regulations give support to the idea that EPA's position has been consistent over time.

In the Federal Register preamble to the Used Oil and BIF Regulations, EPA explained that:

> Today's regulations apply to hazardous waste and used oil burned for "energy recovery." This limitation raises two questions: how to distinguish burning for energy recovery from burning for destruction, and determining how to regulate if burning is conducted to recover materials.
>
> ***
>
> Normally, the purpose for which a material is burned makes no difference in environmental effect. Hence, EPA envisions an ultimate regulatory scheme where regulation of burning applies (as may be necessary to protect human health and the environment) regardless of purpose in all situations within the Agency's jurisdiction. We now address this question as it applies to burning in boilers, burning for a dual purpose in industrial furnaces, and burning in industrial furnaces solely for material recovery.
>
> We explained in the January 11, 1985 preamble that since boilers, by definition, have as their primary purpose the recovery of energy, if materials are also recovered, this recovery is ancillary to the purpose of the unit, and so does not alter the regulatory status of the activity. (See also definition of "boiler" in 50 FR at 661 (January 4, 1985).) We also explained that the regulations apply when an industrial furnace burns the same material for both energy and material recovery (e.g., when blast furnaces burn organic wastes to recover both energy and carbon values).

50 Fed. Reg. at 49,171. EPA further explained that:

> With certain exceptions discussed below, these rules apply to hazardous wastes (and fuels that are produced from or otherwise contain hazardous waste as a result of processing, blending, or other treatment), that are burned for energy recovery in a boiler or industrial furnace that is not operating under RCRA standards for hazardous waste incinerators. Such fuel is termed "hazardous waste fuel".
>
> Certain commenters questioned whether these rules (and by extension RCRA section 3004(q)) would apply when energy recovery from burning hazardous wastes is merely incidental, or when energy recovery is not the principal purpose of burning. Today's rules apply where energy recovery is significant or purposeful. The Agency stated as long ago

> as 1983 in a Statement of Enforcement Policy (48 FR 11159 (March 16, 1983)) that ordinarily burning low energy (less than 5,000 Btu lb.) hazardous waste is not considered to involve energy recovery, in spite of incidental energy release. See also 50 FR at 630 (January 4, 1985), and 50 FR 1690 (January 11, 1985) reiterating this principle. Thus, if boilers or industrial furnaces burn hazardous wastes containing organic constituents these rules would not invariably apply.
>
> These rules do apply, however, if hazardous wastes (viz. any hazardous secondary material (see § 261.2(c)(2), January 4, 1985 and August 20, 1985)) are burned in industrial furnaces or boilers both to recover energy (i.e., to provide substantial, useful heat energy) and for some other recycling purpose, *even if energy recovery is not the predominant purpose of the burning*. EPA already has taken this position in the rules codifying section 3004(q) of RCRA. 50 FR 28724 (July 15, 1985). In addition, as noted above, the Agency is moving away from tests based on purpose because the purpose of burning normally is unrelated to its environmental effect. Indeed, the argument that these rules (as well as RCRA section 3004(q)) should apply only where energy recovery is the principal purpose of burning would resurrect the discredited "primary purpose" test formerly used by EPA to distinguish recycling from incineration. As both the Agency and the Congress have stated, this standard was largely irrelevant for evaluating environmental effects of burning, and proved exceedingly difficult to administer. See 48 FR 14483 (April 4, 1983); S. Rep. No. 284, 98th Cong. 1st Sess. at 36 (1983).

50 Fed. Reg. at 49167.

> EPA then explained that it had been asked:
>
> to exclude Cadence product 312 from regulation as a hazardous waste fuel. Cadence product 312, better known under its former trademark name of "CHEM-FUEL" (hereinafter termed "Cadence product"), is a blend of hazardous spent solvent recovery still bottoms and other hydrocarbon-based hazardous waste that is patented for use in blast furnaces by Cadence Chemical Resources, Inc. (hereinafter termed "Cadence").

50 Fed. Reg. 49171. U.S EPA explained that:

> Many commenters argued that Cadence product is not subject to regulation as a hazardous waste fuel because it is not burned in the blast furnace for energy recovery. Rather, they argue that Cadence product is burned as an ingredient in the iron-making process to provide carbon, hydrogen, and chlorine and that it only provides incidental energy to the furnace. Commenters further argue that Cadence product is a valuable product used in a major commodities market, and, hence that EPA does not have authority under RCRA to regulate it.

Id.

In its analysis, EPA first provided an explanation of blast furnace operations. EPA then rejected the idea that Cadence was not "burned for energy recovery" concluding that burning Cadence in an industrial furnace as an injectant replacing some of the coke that would otherwise be used provided heat energy and reducing gases used in iron making. In this regard, EPA explained:

> Before we explain how liquid fuel injectants with substantial heating value like No. 6 fuel oil or Cadence product contribute substantial heat energy to a blast furnace, we will explain how they, at the same time, actually cool flame temperatures in the combustion zone. Combustion zone temperatures are maintained at 3700-3900 ° F by the combustion of coke in the presence of the 2000 ° F hot blast (i.e., preheated combustion air). The net reaction of injected fuels is endothermic (heat absorbing) in this zone. Injected liquid fuels first undergo endothermic vaporization, then exothermic combustion to (ideally) carbon dioxide and water where sensible heat is released, and finally, endothermic dissociation and reduction in the presence of excess carbon provided by the coke to form the reducing gases carbon monoxide and hydrogen.
>
> Cadence argues that these liquid fuel injectants are not burned for energy recovery because tuyere-injected fuels undergo net endothermic (i.e., heat-absorbing) reactions in the combustion zone which reactions actually cool flame temperatures, and that any heat energy released from subsequent reactions is incidental and unavoidable. Cadence's argument ignores the fact that fuel injectants first behave as bona fide fuels by combusting to (ideally) carbon dioxide and water. The amount of sensible heat released during this combustion phase is measured by a fuel injectant's heating value in Btu/lb. Immediately after the fuel is combusted, the combustion products act as ingredients to furnace reactions by being converted to the reducing gases carbon monoxide and hydrogen during endothermic reactions. The fact that fuel injectants release substantial heat energy while providing hydrocarbons for reactions enables operators to reduce coke rates. (As noted above, coke is both the primary fuel and primary source of carbon to the blast furnace.)
>
> The heat energy released from subsequent (i.e., outside the combustion zone) reactions of fuel injectant hydrocarbons is in fact substantial, intentional, and useful contrary to Cadence's claim that it is incidental and unavoidable. As discussed above, *furnace top gas is used as fuel in stoves to heat the hot blast, in a boiler plant, or in other heating applications within the steel plant. The excess reducing gas contained in the top gas that was not used to reduce the iron ore gives the top gas substantial heating value. The excess reducing gas is contributed by the coke and fuel injectants, roughly in proportion to the amount of hydrocarbons each provides to the furnace. [The] furnace top gas is a substantial fuel source* in that only about one-third of the fuel gas is used to heat the hot blast while two-thirds is available for other uses.

***

> Injectants that have no heating value like steam, or minimal heating value,[FN24] provide no or minimal heat energy to the furnace and, thus, are not considered to be fuel injectants. Thus, injectants with no or minimal heating value are not considered to be burned for energy recovery.
>
> > FN24 The Agency always considers a material with a minimum heating value of 5,000-8,000 Btu/lb to be a bona fide fuel. See section II in the text.
>
> *Cadence's argument in fact proves too much. It is clear that net furnace reactions are endothermic—heat from the coke and fuel injectants is required to drive reactions that reduce iron ore to metallic iron. Under Cadence's logic that a material involved in an endothermic reaction is not a fuel irrespective of its heating value, the coke would not be a fuel. Yet it is the primary fuel source to the furnace. The fact is that both coke and fuel injectants like the Cadence product serve a dual purpose of providing substantial needed energy and reductants.*

50 Fed. Reg. 49172-49173 (certain footnotes omitted) (emphasis added).

EPA's understanding of blast furnace operations expressed in 1985, and its conclusion that Cadence was a solid waste burned for energy recovery despite, perhaps, its use as an ingredient in an industrial process to make a product, is wholly consistent with EPA's application of the regulations in this case. It is also still relevant today. As Professor Fruehan explained at the hearing:

> 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.

Tr. 1128-1130.

To the extent that the Cadence discussion speaks in terms of "heat energy," that discussion did not alter the plain language of the regulation. Further, the record evidence showing that injectants provide both heat and chemical energy is not *inconsistent* with the Cadence discussion. Rather, it reflects a more current understanding that the energy used to convert iron ore to iron comes in the form of heat energy and chemical energy.

In conclusion, under the *Howmet* framework it is clear that the CIS material was a solid waste that was burned for energy recovery. Respondents have not met their burden of proving that they are entitled to the recycling exemption provided at OAC § 3745-51-02(E)(1)(a) [40 C.F.R. §261.2(e)(1)(i)], because their materials were burned for energy recovery within the meaning of OAC § 3745-51-02(E)(2)(b) [40 C.F.R. §261.2(e)(2)(ii)]. These conclusions are consistent with (1) RCRA's general approach to recyclable materials and how the RCRA program approached the question of regulating materials recycled by burning for energy recovery (*Howmet*, 2007 EPA App. LEXIS 19, at **30-48) and (2) whether the CIS material was burned for energy recovery (*Id.* at **56-75). The conclusion that the CIS material was burned for energy recovery is consistent with the plain language of the regulatory definition of "burning for energy recovery," the interpretation of that term is consistent with the regulations as a whole, the guidance provided by the rule-making history supports EPA's interpretation, and EPA's position in this case is consistent with its prior interpretations of the term.

b. EPA's Interpretation of the Regulations Is Entitled to Deference

The EAB articulated its understanding of administrative deference in *In Re Lazarus Inc.*, 7 E.A.D. 318, 349-359 (1997). In interpreting the Paper Work Reduction Act ("PRA") requirements for "display" and "means of display" of Office of Management and Budget ("OMB") control number, in the absence of legislative definition and judicial interpretation, the EAB looked to OMB's opinion, expressed through the General Counsels' correspondence, as entitled to some deference. However, the facts regarding the format and context in which the OMB control number was published did not match the fact patterns described in the General Counsels' correspondence. Thus the General Counsels' correspondence did not directly apply, and the EAB's holding did not depend on its analysis of the deference due the correspondence. Rather, General Counsels' correspondence, OMB's regulations, and the PRA established that the means of display were inadequate. As explained by the EAB in *In Re Lazarus*:

> The modern framework for administrative deference was established in *Chevron U.S.A., Inc. v. Natural Resources Defense Council*, 467 U.S. 837 (1984). *Chevron* noted that "considerable weight should be accorded to an executive department's construction of a statutory scheme it is entrusted to administer . . . ." *Id.* at 844. Under *Chevron*, an agency's interpretation of a statute is entitled to deference "if the statute is silent or ambiguous with respect to the specific issue," and the interpretation proffered by the agency is reasonable. *Id.* at 843-44.
>
> The rule of deference also applies to agency interpretations of regulations. In fact, an agency's interpretation of its own regulation is typically entitled to more deference than an interpretation of a statute. *Udall v. Tallman*, 380 U.S. 1, 16 (1965)("[w]hen the construction of an administrative regulation rather than a statute is in issue, deference is even more clearly in order"); *Martin v. Occupational Safety and Health Review Commn.* 499 U.S. 144, 151 (1991)("the power authoritatively to interpret its own regulations is a component of the agency's delegated lawmaking powers"); *Thomas Jefferson Univ. v. Shalala*, 512 U.S. 504, 512 (1994)(an agency's interpretation of a regulation must be accorded "substantial deference" and "controlling weight" unless "plainly erroneous or inconsistent with the regulation"). The heightened deference accorded to interpretations of regulations is especially appropriate where an agency's special expertise is required to administer a technical regulatory program. *Thomas Jefferson Univ.* 512 U.S. at 512; Martin 419 U.S. at 151; *Ford Motor Credit Co. v. Milhollin*, 444 U.S. 555, 566

> (1980)(Federal Reserve Board's administrative expertise in implementing the Truth in Lending Act was basis for according deference to its interpretation of regulations); *Beazer East, Inc., v. EPA*, 963 F.2d 603, 607 (3d Cir. 1992)("complex nature of environmental statutes and regulations and the specialized knowledge necessary to construe them" was reason for according deference to EPA).

In Re Lazarus 7 E.A.D. at 351.

A more recent expression of the deference to be accorded to EPA's interpretation of its regulations was provided in the Howmet decisions. In *Howmet Corp. v. EPA*, 614 F.3d 544 (D.C. Cir. 2010), the D.C. Circuit concluded:

> Having determined the Agency's interpretation is reasonable, we need not evaluate the reasonableness of Howmet's proposed interpretation. Once it is established that an agency has adopted a reasonable interpretation of an ambiguous regulation, the agency's interpretation stands even if a regulated entity has proposed an interpretation that might comport with the statutory scheme equally well or even better.

Howmet, 614 F.3d at 553. In *In re Howmet Corporation*, RCRA (3008) Appeal No. 05-04, 2007 EPA App. LEXIS 19 (May 24, 2007), the EAB held:

> it is appropriate to give greater deference to an agency's position on a regulation when its rulings, legal interpretations, and opinions are consistent over long periods of time. *See* In re Lazarus, Inc., 7 E.A.D. 318, 352-53 (EAB 1997) ("The degree of deference accorded to [an informal Agency] interpretation 'will depend upon the thoroughness evident in its consideration, the validity of its reasoning, its consistency with earlier and later pronouncements, and all those factors which give it power to persuade, if lacking power to control.'") (quoting Skidmore v. Swift, 323 U.S. 134, 140 (1944)); In re Landfill Serv. Corp., 3 E.A.D. 346, 350 (EAB 1990) (explaining that interpretations by EPA's program offices are neither binding on the Board nor dispositive).

Howmet, 2007 EPA App. LEXIS 19, at **68-69.[7]

[7] Respondents cite to other cases for support of their position on deference. All but two of seven cases cited by Respondent on the topic of the deference to be accorded an agency's interpretation of the meaning or applicability of a statute or implementing regulation give the agency deference and hold that the agency was correct in its interpretation. The first cited case not according deference, is *Norfolk Southern Railway Company v. Shanklin*, 529 U.S. 433 (2000). In *Northern*,

Contrary to these cases, it appears Respondents are arguing that the Court should not defer to EPA's interpretation of its regulation as presented in this case, where the term "burned for energy recovery" includes both heat energy and chemical energy created by burning injectants as coke substitute in a blast furnace. Alternatively, Respondents also argue that the Court should not defer to EPA's 1985 interpretation of its rule as expressly regulating as solid waste (and hazardous waste) injectants burned in an industrial furnace for the reasons explained by EPA in rejecting arguments for exclusion of "Cadence" from regulation as a hazardous waste on the ground that it fell outside the definition of solid waste. *See* 50 Fed. Reg. 49164, 49171-49174. Both arguments must fail, since EPA has clearly and consistently articulated the meaning of "burning for energy recovery" in the preamble to the final rule, and in the preambles to later rules the agency has proposed and finalized. *See* Section II.A.1.a.ii.d, above.

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the Court held that a widow's wrongful death claim against a railroad based on inadequate warning devices was preempted by a federal statute and implementing regulations addressing the adequacy or warning devices installed with federal funds, and that the Government's interpretation of its regulations such that preemption would not apply was not entitled to deference, because the contradicted the regulations plain text and the Federal Highway Administration's own previous construction. Id. at 352-356. The second cited case not giving deference is *Christensen v. Harris County*, 529 U.S. 576 (2000), In *Christensen* the Court held that the Fair Labor Standards Act, being silent on the topic, allowed an employer to adopt a policy requiring its employees to schedule time off in order to reduce the amount of accrued time, and that a Department of Labor opinion letter taking a different view (but lacking the force of law) was not entitled to deference where the language of the regulation was unambiguous. *Id.* at 582-88.

From the standpoint of deference to agency interpretation, concluding that injectants provide both heat energy and chemical energy to the iron making process are not inconsistent with each other in terms of interpreting the phrase "burning for energy recovery." Both recognize that combustion of injectants provides energy. The fact that EPA in this matter is advancing what may be seen as a more current understanding of blast furnace operations, which recognizes that the reducing gases produced by combustion of injectants provide chemical energy in addition to the heat energy from combustion, merely supplements EPA's 1985 discussion of the Cadence product and its function in blast furnace operations.

In an extreme example of having their cake and eating it too, Respondents urge that the Court reject both EPA's interpretation of the phrase "burned for energy recovery" as including heat energy and chemical energy as advanced in this case, as well as its 1985 Federal Register analysis of the phrase "burned for energy recovery" which appears to have rested on "heat energy." According to Respondents, interpreting the phrase "burned for energy recovery" as including heat energy and chemical energy is to be rejected on the ground that it is a "new" interpretation of the meaning of the regulation. Respondents' Response at p. 25. At the same time, Respondents urge that the Court reject the 1985 analysis of what it means for something to be burned for energy recovery as "well outside the Agency's own expertise" and based on "outdated 'combustion' theories." Respondents' Response at p. 31. Instead, Respondents would have this Court toss out well established legal principles of regulatory interpretation and standards of deference in favor of Respondents' interpretation of the meaning of "burned for energy recovery." This should be rejected.

2. Even If The JLM And IFF Material Was An Ingredient In An Industrial Process To Make A Product, It Is Excluded from that Exemption Because The Material Was Burned For Energy Recovery

Respondents next argue that their hazardous waste blend was excluded from the definition of solid waste by virtue of the recycling exemption, because it was used as an ingredient in an industrial process to make a product when it was used as an injectant in WCI's iron making blast furnace. OAC § 3745-51-02(E)(1)(a) [40 C.F.R. § 261.2(e)(1)(i)]. This exclusion is available for certain types of wastes, but it is not available for wastes which fall within the "waste" definition because they are burned for energy recovery.

The final rule provides that the exclusion from the definition of solid waste for materials recycled by being "used . . . as ingredients in an industrial process to make a product" but continued that the exclusion did not apply for materials used as an ingredient if that material was "burned for energy recovery." 40 C.F.R. §§ 261.2(e)(1)(i) and 261.2(e)(2)(ii). In adopting this approach, EPA explained in the preamble to the final rule as follows:

> The final rule consequently states that secondary materials used as ingredients or used directly as commercial products are not wastes and so are outside the Agency's RCRA jurisdiction. They thus are not subject to RCRA Subtitle C regulations when generated, transported, or used (unless they are accumulated speculatively, as described earlier).
>
> ***
>
> We have redrafted the final regulation so that § 261.2(e)(1) indicates explicitly which secondary materials used/reused in particular ways are not solid wastes. A definition of "use"/"reuse" appears in § 261.1(c). Exceptions to this principal are found in § 261.2(e)(2), and restate the situations where recycling might be considered to involve a use (or a closed-loop recycling situation, explained in the next section), but nevertheless constitutes waste management.
>
> As noted above, *there are several such use/reuse circumstances where the nature of the material or the nature of the recycling activity indicates that RCRA jurisdiction exists*:
>
> ***

> *where the material is used by being incorporated into a fuel, or being burned directly as a fuel.*

50 Fed. Reg. at 638 (emphasis added). This language, together with EPA's statement in the preamble to the final rule that "we thus reconsider and withdraw footnote 19 of the preamble to the proposed rule where we said we would count materials burned in industrial furnaces for both energy and material recovery as being burned for material recovery" (50 Fed. Reg. at 631) makes clear that materials like the IFF materials, when burned for energy recovery, are regulated under RCRA.

As the foregoing shows, it was (and is) EPA's intent to treat the reuse of hazardous secondary materials, like the IFF materials, as a solid (and hazardous) waste where the reuse involves burning for energy recovery, even if the material is used as an ingredient in an industrial process to make a product.

B. IFF Materials Were Both Solid Wastes and Hazardous Wastes

Much like their discussion in the Respondents' Motion for Accelerated Decision, Respondents' analysis of Unitene's regulatory status represents a collection of mischaracterizations and distractions in an attempt to muddle the applicable regulations and the evidence presented at trial. Rather than structure their discussion around the factors highlighted in *In re Brenntag Great Lakes, LLC ("Brenntag")*, EPA Docket No. RCRA-05-2002-0001, 2004 EPA ALJ LEXIS 18, at *40-41 (June 2, 2004) ("by-products are materials, generally of a residual character, that are not produced intentionally or separately, and that are unfit for end use without substantial processing . . .")(quoting "Hazardous Waste Management System; Definition of Solid Waste," 50 Fed. Reg. 614, 625 (Jan. 4, 1985)), which EPA and the Presiding Officer have adopted to determine whether a material is a solid waste, Order on Motions for Accelerated Decision, p. 29, Respondents focus on extraneous assertions. In an effort to comply with the

Presiding Officer's request that each brief be responsive to the issues raised in the brief to which it replies, Tr. 2695-86, EPA will address each of Respondents' assertions in turn, even those assertions that stray from the *Brenntag* factors and the appropriate focus of this case.

1. EPA Met Its Burden of Proof in Establishing that Unitene is a Solid Waste and Hazardous Waste

Avoiding the *Brenntag* factors, Respondents begin their analysis of the regulatory status of Unitene by asserting that EPA failed to meet its burden for two reasons: (1) EPA "made the strategic decision to prosecute CIS by essentially putting IFF . . . on trial *in absentia*" and (2) EPA experts based their opinions on insufficient evidence. Respondents' Response at pp. 33-35. Not only is this first segment of Respondents' Response totally irrelevant to the *Brenntag* factors, it is also unpersuasive.

First, Respondents argue that by failing to name IFF in its Complaint, EPA based its enforcement action on insufficient evidence. Respondents' Response at pp. 33-34. This argument is merely Respondents' First Affirmative Defense redressed. In their Answer, Respondents sought to avoid liability based on Complainant's failure to join IFF. CX41 at EPA17131. Addressing the validity of this affirmative defense, this Court already opined that "the violations of RCRA alleged in the Complaint are all based on the activities of the Respondents alone . . . . Accordingly, Respondents' First Affirmative Defense is insufficient to avoid liability. . . ." Order on Complainant's Motion to Strike Affirmative Defenses, p. 5. Furthermore, it is disingenuous for Respondents to suggest that the record includes minimal evidence related to IFF's processes. The record includes, among other related documents, IFF responses to two EPA Information Requests (CX9 and CX11), which total 3,154 pages, four letters composed by IFF's counsel that explain IFF processes (CX55-58), one IFF response to EPA's Notice of Violation (CX60), 1,332 pages of deposition testimony from four IFF

employees (CX161-164), three RCRA Biennial Reports (CX165-167), three Hazardous Waste Reduction Plans (CX185-187), three Georgia Department of Natural Resources Inspection Reports (CX188-190), and the testimony of IFF employees David Shepherd and Thomas Guido. While Respondents are correct that this evidence did not alter EPA's initial conclusion that Unitene was a hazardous waste, EPA's consistency in no way suggests that the initial conclusion was erroneous. In fact, each piece of evidence bolstered EPA's initial conclusion. Tr. 341-347 (Mr. Beedle explaining that additional evidence supported his initial determination). Therefore, IFF's absence as a Respondent in this matter did not impact EPA's ability to satisfy its burden.

Second, Respondents assert that EPA's experts based their opinions on insufficient evidence. Specifically, Respondents' criticize the experts for failing to review letters from IFF's counsel, inspect the IFF facility, test the material at issue, or participate in the depositions of IFF employees. Respondents' Response at p. 34. However, Respondents fail to explain why all of these actions, in addition to the analysis that the EPA experts did undertake,[8] are necessary in

[8] In Attachment A of his first declaration, David Clark identified which documents he reviewed in reaching his conclusion. Contrary to Respondents' insinuations, Attachment A includes, among other documents, the deposition testimony of each IFF employee and the four letters from IFF's counsel, which attempt to explain away both CIS's and IFF's RCRA liability. Michael Beedle testified as to his significant familiarity and analysis of the following IFF documents: IFF's responses to EPA's Information Requests, CX9, CX11, Tr. 146-156, 191-203; four letters composed by IFF's counsel that explain IFF's processes, CX55, CX56, CX57, CX58, Tr. 341-345; a Material Safety Data Sheet for Iso E Super, CX144, Tr. 118-120; the depositions of four IFF employees, CX161, CX162, CX163, CX164, Tr. 203-212, 237-239, 169-172; IFF's Hazardous Waste Reduction Plans, CX185-187, Tr. 160-165, 213-216; and Georgia Department

making an accurate hazardous waste determination. It is also important to note that no evidence suggests that Respondents' expert on the same subject, Dr. Bruce Sass, performed any of these tasks that Respondents deem essential. Therefore, according to Respondents' standards, Dr. Sass' expert opinion should also be discredited. Moreover, nowhere in his written or oral testimony does Dr. Sass state that he reviewed *any* of the materials related to IFF's processes. Rather than focusing on the facts at issue, as EPA's experts have done, Dr. Sass chose to base his testimony exclusively on numerous technical papers describing the properties of terpenes. RX130 at p. 25 (a list of references attached to Dr. Sass' written testimony, which excludes any reference to IFF documents). Finally, Respondents have attempted to mislead this Court in stating that Mr. Beedle and Mr. Clark admitted that they lacked sufficient evidence to support their conclusions. Respondents' Response at p. 35. Not only do Respondents' citations direct this Court to the transcript of Mr. Clark only, but they also fail to represent any such admittance. *See e.g.*, Tr. 1494-1495.[9] Based on the foregoing reasons, Respondents fail to demonstrate that EPA's experts relied on insufficient evidence.

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of Natural Resources' reports from its inspections of IFF, CX188-190, Tr. 166-169, 217-218, 239-241.

[9] In response to a convoluted hypothetical question, Mr. Clark stated only that CIS could not know that Unitene contained MEK based on the information on a certificate of analysis alone. This in no way suggests that Mr. Clark could not reach that conclusion based on the volumes of documents that he reviewed.

2. Unitene LE and Unitene AGR are By-Products and Solid Wastes

a. The Evidence that Respondents Highlight Does Not Support Unitene's Status as a Product

Respondents set forth bulleted testimony from IFF employees in an effort to demonstrate that one *Brenntag* factor, unintentional production, is inapplicable to Unitene. Respondents' Response at p. 38-39. However, Respondents' attempt to prove that IFF intentionally produced Unitene is unpersuasive for several reasons. First, this Court must review the testimony of David Shepherd and Thomas Guido with skepticism. As this Court indicated when it allowed EPA to examine Mr. Guido and Mr. Shepherd as hostile witnesses, IFF's interests are directly aligned with those of Respondents. Tr. 2592-93. Mr. Shepherd testified that IFF received a Notice of Violation from EPA, which alleged RCRA violations based on the fact that Unitene is a hazardous waste. *Id.* Therefore, to protect against their own liability, IFF and its employees are incentivized to ensure that Unitene is not deemed a hazardous waste in the current proceeding. Because Respondents rely solely on this biased testimony of IFF employees in demonstrating that Unitene was intentionally produced, this Court should attribute little weight to such evidence.

Second, Respondents' bulleted facts are irrelevant as to whether IFF intentionally produced Unitene. The *Brenntag* factors and the preamble to the definition of solid waste provide that products and co-products must be *produced* intentionally. 2004 EPA ALJ LEXIS 18, at *40-41; 50 Fed. Reg. at 625. The facts that Respondents chose to highlight prove only that Unitene was *sold* intentionally, or, in the case of Unitene AGR, *stored* intentionally. [redacted]

[redacted]

[redacted]. None of these activities relate to the physical production of Unitene. In fact, any company would engage in all of these activities if it sought to effectively sell any material, including a material that the company did not produce intentionally, such as a hazardous waste. Therefore, Respondents' bulleted facts are irrelevant as to whether IFF produced Unitene intentionally. In regards to IFF's efforts to trademark "Unitene," they not only fail indicate IFF's intent to *produce* Unitene, but IFF did not submit the application to trademark the name until March 24, 2011 - years after IFF began selling the material and long after this Complaint was filed. CX64-65. EPA has never contended that IFF did not have the intention to sell Unitene and derive from it as much profit as possible, or to reduce the costs of its hazardous waste disposal. Unfortunately for Respondents, IFF's intention to sell Unitene does not equate to IFF's intention to produce Unitene, as the definition of co-product requires.

The court in *Brenntag* reached a similar conclusion: evidence demonstrating that a company marketed and sold a material is not persuasive in determining the regulatory status of that material. 2004 EPA ALJ LEXIS 18, at *40-44. In *Brenntag*, a chemical manufacturer believed a waste stream, aqueous isopropyl alcohol (aqueous IPA), to be a product. The

[10] It is important to note that Respondents do not even allege that IFF made any modifications to its plant to store Unitene LE. [redacted]

manufacturer developed specifications for aqueous IPA in conjunction with customers and tested aqueous IPA for compliance with those specifications. *Id.* at *42. Additionally, the manufacturer gave aqueous IPA a product number, and the material was shipped with an MSDS on a standard bill of lading – not a hazardous waste manifest. *Id.* at *31-32. Much like Respondents in the present case, the respondent in *Brenntag* argued that the generator, the brokers, and the purchaser perceived and treated the aqueous IPA as a product. *Id.* at 42. In concluding that the material was a solid waste, the court found these facts less persuasive than an analysis of the material's production process and characteristics. Respondents' bulleted testimonial evidence constitutes the same arguments that the court found unpersuasive in *Brenntag*; therefore, this Court should find Respondents' arguments similarly unpersuasive.

Lastly, it is telling that Respondents chose not to address many of EPA's arguments concerning IFF's lack of intent to produce Unitene. [redacted]

[11] Respondents may assert that the mislabeling of Unitene as a by-product is attributable to IFF's failure to attach any regulatory significance the terms "product" and "by-product". However, the

[redacted] As this proceeding advances and the issues are narrowed, Respondents' inability to respond to the matters of critical relevance is telling.

b. IFF's Historical Disposal of Unitene Is Indicative of IFF's Lack of Intent to Produce Unitene

i. The Sale of a Waste Does Not Transform that Waste into a Product

Next, Respondents assert that RCRA does not preclude a company from making a product out of material that was once discarded as a waste. Respondents' Response at pp. 40-42. EPA agrees that the RCRA regulations encourage companies to repurpose waste. For example, certain "reclaimed" wastes are not subject to RCRA regulation. OAC § 3745-51-02(C)(3) [40 C.F.R. § 261.2(c)(3)]. Also, RCRA does not regulate materials that are recycled in specific

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record indicates otherwise. [redacted] Moreover, Mr. Clark explained that the employees of every chemical manufacturing plant in which he has worked easily distinguished between the terms "product" and "by-product", because, in that industry, the product is an employee's goal and by-products are waste-like and residual. Tr. 1408-1409.

manners. OAC § 3745-51-02(E) [40 C.F.R. § 261.2(e)]. To support this alleged transition from waste to product, Respondents do not allege any change in the composition of the material [redacted] Therefore, Respondents argue that a waste can became a product simply by virtue of being sold. This argument completely ignores, and thus fails to satisfy, the regulatory definitions of product and co-product.

The fact that Unitene was marketed and sold does not suggest that Unitene is immune to RCRA regulation. EPA directs the Court's attention to *In re Howmet Corp.*, Docket No. RCRA 02-2004-7102; RCRA 06-2003-0912, 2005 EPA ALJ LEXIS 21 (Apr. 25, 2005), *aff'd*, *In re Howmet Corporation*, RCRA (3008) Appeal No. 05-04, 2007 EPA App. LEXIS 19 (May 24, 2007), *aff'd*, *Howmet Corp. v. EPA,* 656 F. Supp.2d 167 (D.D.C. 2009), *aff'd*, *Howmet Corp. v. EPA*, 614 F.3d 544 (D.C. Cir. 2010). In *Howmet,* the respondent disposed of potassium hydroxide ("KOH") at a hazardous waste disposal facility during a certain period of time. *Id.* at *2. Much like Respondents in the present case, the respondent in *Howmet* identified a purchaser and sold the KOH to a fertilizer manufacturer. *Id.* The composition of KOH that was disposed as a hazardous waste did not differ from the composition of the KOH that was being marketed and sold. *Id.* at *53. Howmet argued, as Respondents do in the present case, that hazardous waste, when sold to a purchaser, is not a solid waste because the material would be used by that purchaser. *Id.* Relying on the fact that there was no difference in composition between the hazardous waste and the alleged product, the court held that the KOH was a solid waste and

subject to RCRA regulation. *Id.* [redacted] Therefore, Unitene remains a solid waste.

Even if this Court were to adopt Respondents' argument that a waste can become a product solely by virtue of being marketed and sold, Respondents fall short of saving Unitene from RCRA regulation. [redacted] It is telling that Respondents' relegate their analysis of Unitene's pricing to a single footnote. Respondents' Response at pp. 39-40, n.19 [redacted]

ii. Unitene's Composition Does Not Differ from the Composition of the Hazardous Waste that IFF Historically Discarded

[redacted]

[redacted]

[redacted]

c. The EPA Determination Letters Do Not Indicate that Unitene Is a Product

Next, Respondents attempt to liken Unitene to materials that EPA has deemed a co-product in various determination letters. Respondents' Response at pp. 42-44. These determination letters should be given little weight because, as Respondents state correctly, the issue of whether a particular material should be properly identified as a "co-product" or a "by-product" is a case-by-case determination. Moreover, while Respondents claim that the materials

in EPA determination letters are analogous to Unitene, Respondents fail to address the foundation for such a claim. Respondents engage in no comparison of physical characteristics and chemical composition. Additionally, Respondents fail to explain the similarities between physical and chemical processes generating Unitene and those generating the subject of the determination letters. Similarly, Respondents liken Unitene to petroleum distillation co-products and discredit the relevant testimony of Mr. Clark with absolutely no analysis. Respondents' Response at p. 44. Without such analysis, these arguments are of no purpose to this Court.

d. Unitene Is Unfit for End Use Without Substantial Processing

A by-product is unfit for end use without substantial processing. *Brenntag*, 2004 EPA ALJ LEXIS 18, at *40-41; 50 Fed. Reg. 614 at 625. [redacted] This argument is misleading and serves only to demonstrate Respondents' desperation as they resort to assertions that simply are not true. [redacted]

[redacted]

Second, Respondents contend that dewatering, even if deemed "processing", is not "substantial processing." Respondents' Response at p. 45. The amount of processing that will be deemed "substantial" is not defined in the regulation or the preamble to the final rule. However, a careful reading of the preamble's description of a "co-product" sheds light on the meaning of "substantial processing." The preamble to the definition of solid waste states that a "co-product" is "suitable for end use essentially as-is." 50 Fed. Reg. 614 at 625. By requiring that a "co-product" be used "essentially as is", the preamble suggests that a "by-product" is a material that cannot be used "essentially as is." This establishes a lenient standard for what types of processing should be deemed "substantial."

An analysis of the effect of the dewatering process demonstrates that it satisfies the "substantial processing" standard [redacted] A

process effectuating such a drastic change in the nature of a material satisfies the low bar of the "substantial processing" standard, as established in the preamble.

Even if this Court finds that dewatering does not constitute "substantial processing," when viewed in conjunction with the other processes that Unitene underwent at the CIS facility, Unitene was substantially processed. It is telling that Respondents fail to even address the other manners in which Unitene was processed. [redacted] In sum, Respondents' analysis of this *Brenntag* factor is surprisingly inadequate and demonstrates that Unitene was substantially processed, as described in Complainant's Brief at pp. 25-27, 38-39.

e. The Expert Opinions of Mr. Clark Are Credible

Next, Respondents attack the credibility of Mr. Clark. Respondents' Response a pp. 46-52. Initially, they question Mr. Clark's qualifications, stating that he is not a chemist. *Id.* at 46. In fact, Mr. Clark holds a Bachelor of Science in Chemical Engineering and a Master's of Science in Environmental Engineering. CX169. Throughout his career, Mr. Clark has manufactured and supervised the manufacture of organic chemicals, which were often burned for energy recovery. Tr. 1208-1218. As EPA alleges, Unitene LE and AGR are also organic chemicals that are burned for energy recovery; therefore, Mr. Clark is extremely well-qualified to offer his opinion in this matter.

What are more questionable are the qualifications of Dr. Sass. Dr. Sass's testimony focuses almost exclusively on the properties and composition of terpenes, an organic compound. In order to testify competently on the properties and composition of an organic compound, one should have at least some educational background in organic chemistry. Remarkably, Dr. Sass has none. Dr. Sass admitted that he has *never* taken an organic chemistry class. His only educational experience in organic chemistry is studying for the Graduate Record Examination, or GRE, a test required for admittance into most graduate school programs, including programs to study humanities, the arts, and social sciences. Tr. 1651. Respondents also urge this Court to find Dr. Sass' testimony regarding terpenes credible. However, it is readily apparent that the focus of Dr. Sass' career has been carbon sequestration and groundwater contamination. RX130 at pp. 11-17 (a list of Dr. Sass' publications which mostly relate to carbon sequestration and exclude any publication related to terpenes). The record demonstrates that Dr. Sass' expertise with terpenes derives solely from two projects. Tr. 1656. Given Dr. Sass' lack of experience in the issues on which he chose to focus, this Court should accord his testimony little weight.

i. Unitene LE and Unitene AGR are Distillation Column Bottoms

The regulatory definition of "by-product" provides that "distillation column bottoms" are "by-products." OAC § 3745-51-01(C)(3) [40 C.F.R. § 261.1(c)(3)]. Relying on the plain meaning of the word "distillation column bottom", EPA asserts that Unitene LE and Unitene AGR are distillation column bottoms. Respondents take issue with this classification for several reasons, none of which are persuasive.

First, as they have attempted throughout this proceeding, Respondents once again try to distinguish "distillation column bottoms" from its plain meaning. In so doing, Respondents add criteria for distillation column bottoms that are not included in the phrase's plain meaning. For

example, Respondents require that a distillation column bottom be "intrinsically waste-like sludge". Respondents' Response at p. 47. They add that a distillation column bottom cannot be clear or must contain sludge or solid residue. *Id.* at 48.[13] However, "[a] court's first task, when a statutory or regulatory phrase is not defined, is to determine the 'plain meaning' of the language." *In re San Pedro Forklift*, Docket No. CWA-09-2009-0006, 2012 EPA ALJ LEXIS 5, *38 (Jan. 27, 2012)(citation omitted). "Absent a definition, the court considers the ordinary, common-sense meaning of the words." *Id.* The plain meaning of "distillation column bottom" is straight forward; it is simply the material at the bottom of a distillation column. Accordingly, a "distillation column bottom" need not satisfy Respondents' additional criteria.

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[13] Respondents repeatedly attempt to distinguish Unitene from one example of distillation column bottoms, crude oil distillation column bottoms, by pointing out that Unitene does not contain solids or semi-solids. [redacted] Crude oil distillations have thirty or forty different fractions, so the bottom is a very small percentage of the total column. *Id.* [redacted]

Respondents then argue that one must be subjective in concluding that Unitene is the bottom of the distillation columns at issue. [redacted]

ii. The Presence of Contaminants in Unitene Is Irrelevant in Deciding Whether Unitene Is a "Waste"

Next, Respondents expend considerable effort, as they did at hearing, to demonstrate that Unitene does not contain MEK or ethylbenzene. Respondents' Response at pp. 49-50. This effort represents another of Respondents' attempts to distract this Court from the relevant facts. The presence of contaminants is totally irrelevant in determining whether a material is a solid waste, because all solid wastes are not necessarily hazardous wastes as well. *See* OAC § 3745-51-02(A)(1) [40 C.F.R. § 261.2(a)(1)] (the definition of solid waste, excluding any requirement that the solid waste contains contaminants). Similarly, the presence of contaminants is not a

[14] It is important to note that Respondents do not assert any argument as to why Unitene AGR is not a distillation column bottom.

Brenntag factor, nor is it mentioned in the preamble's analysis of by-products and co-products. 2004 EPA ALJ LEXIS 18, at *40-41; 50 Fed. Reg. 614, 625. Therefore, Respondents' attempt to conclude that Unitene is not a by-product because it does not contain contaminants is misleading.[15]

iii. Mr. Clark's Opinion Is Consistent and Unitene Is Residual in Nature

Respondents allege that Mr. Clark altered his definition of "residue" during the hearing; therefore, his opinion should be discredited. Respondents' Response at pp. 51-52. Respondents assert that Mr. Clark first concluded that Unitene is a residue "because it contains 'dissolved solids.'" Respondents' Response at p. 52. Then, Respondents contend that Mr. Clark shifted his definition of "residue" to "that which is left behind." *Id.* Once again, Respondents' argument represents nothing more than an attempt to mislead this Court. Mr. Clark has never defined "residue" as a material containing dissolved solids, as Respondents' suggest. [redacted] Nothing in Respondents' quoted passage addresses the definition of "residue", and suggesting otherwise is disingenuous. Therefore, Mr. Clark has not shifted his opinion as Respondents' suggest.

[15] The presence of ethylbenzene and MEK is relevant to the question of whether Unitene is hazardous. EPA addresses Respondents' contention that Unitene does not contain ethylbenzene and MEK in Section I.B.4, below.

Rather, Mr. Clark has been consistent in defining "residual material" to mean the undesirable portion of a process or the materials that are left behind once the desired material has been isolated. *See* Complainant's Motion for Partial Accelerated Decision (Mar. 16, 2012) at Attachment A (Declaration of David D. Clark at ¶ 6, explaining that by-products are the undesirable outputs of a process); Complainant's Response to Respondents' Joint Motion for Partial Accelerated Decision at Attachment A (First Supplemental Declaration of David D. Clark at ¶ 19 [redacted]); Tr. 1400-1401(materials "residual in nature" are "those materials that are left behind - - or removed to ensure . . . that material . . . meets a requirement or specification . . . ."); Tr. 1402 [redacted]); Tr. 1437-1438 ([redacted]). While Respondents take issue with Mr. Clark's definition of "residual", they offer no alternative definition, even though it is one of the *Brenntag* factors.[16] Additionally, other than criticizing the definition, Respondents fail to address any of the evidence indicating that Unitene is residual in nature. *See* Complainant's Initial Post-Hearing Brief at pp. 20-21; 31-32. Therefore, this Court should conclude that Unitene is residual in nature.

[16] Even if Respondents were to offer an alternative definition of "residual", this Court must adopt the plain meaning of the word. *In re San Pedro Forklift*, 2012 EPA ALJ LEXIS 5, *38. As explained in Complainant's Initial Post-Hearing Brief at p. 20, Mr. Clark's definition is consistent with the word's plain meaning. Therefore, this Court should adopt Mr. Clark's definition of residual.

3. Unitene Is a Discarded Commercial Chemical Product

As EPA discussed in detail in Complainant's Initial Post-Hearing Brief, should this Court find that Unitene AGR and Unitene LE are co-products or products, then this Court must also conclude that Unitene AGR and Unitene LE are commercial chemical products. *See* Complainant's Initial Post-Hearing Brief at p. 40-44. Pursuant to OAC § 3745-51-02(C)(2) [40 C.F.R. § 261.2(c)(2)], commercial chemical products are solid wastes when burned for energy recovery. Therefore, if this Court finds that Unitene was burned for energy recovery, it must also decide that it is a solid waste, regardless of whether it is deemed a by-product, co-product, or product.

As Respondents accurately note, however, there is one caveat. A commercial chemical product that is burned for energy recovery is not a solid waste when that product is a fuel itself. OAC § 3745-51-02(C)(2)(ii) [40 C.F.R. 261.2(c)(2)(ii)]. Respondents assert that the standard for determining whether a commercial chemical product is a "fuel itself" is whether that material was "used for [its] original intended purpose." Respondents' Response at p. 53 (citing 40 C.F.R. § 261.33).[17] In so doing, Respondents rely on 40 C.F.R. § 261.33, which is the standard to

[17] In their brief, Respondents separate the discussion of Unitene's "original intended purpose" (Respondents' Response at pp. 53-54) and the discussion of Unitene's status as a "fuel itself" (Respondents' Response at pp. 56-59). The separation is inexplicable. Both sections address the regulation of Unitene under OAC § 3745-51-02(C)(2) [40 C.F.R. § 261.2(c)(2)]. If this Court decides that Unitene is burned for energy recovery, Unitene is necessarily a solid waste unless this Court finds that it is a "fuel itself". *See* OAC § 3745-51-02(C)(2)(ii) [40 C.F.R. § 261.2(c)(2)(ii)]. To analyze whether Unitene is a fuel itself, this Court must determine whether Unitene's original intended purpose or normal use is as a fuel. Therefore, EPA will address both

determine if a material listed in 40 C.F.R. § 261.33 is a commercial chemical product. However, Unitene is not a material listed in 40 C.F.R. § 261.33 [OAC § 3745-51-33]. Because Unitene is not listed in 40 C.F.R. § 261.33, it is more appropriate to rely on the standard provided in the technical corrections to the definition of solid waste, which provide that unlisted commercial chemical products, such as Unitene, can also be solid wastes. *See* Hazardous Waste Management System; Definition of Solid Waste; Corrections, 50 Fed. Reg. 14,216, 14,219 (Apr. 11, 1985). Pursuant to the technical corrections, a commercial chemical product is a solid waste when "they are recycled in ways that differ from their normal manner of use." *Id.* Because the technical corrections address the regulatory status of unlisted commercial chemical products, and Unitene is an unlisted commercial chemical product, this Court should use the standard set forth in the technical corrections. Even more persuasively, the "normal use" standard is the standard already adopted by this Court in its Order on Motions for Accelerated Decision. Order on Motion for Accelerated Decision at p. 30 ("Determining the 'normal use' of Unitene is, in turn, an integral part of establishing whether it is a by-product or a co-product.") Therefore, Unitene is a fuel itself only if this Court finds that burning for energy recovery is Unitene's normal use.

Using the appropriate standard, Respondents cannot demonstrate that Unitene's normal use is burning, for any purpose.[18] While it is EPA's burden to demonstrate that Unitene is a solid

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of Respondents' duplicative arguments here.

[18] As this Court noted in its Order on Motions for Accelerated Decision, both EPA and Respondents are placed in the position of asserting an "awkward alternative argument." Order on Motions for Accelerated Decision at p. 30. In EPA's case, that argument is 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." *Id.* It is essential to

waste, at this point, the burden shifts to Respondents to prove that Unitene is exempt from regulation. *See* OAC § 3745-51-02(F) [40 C.F.R. 261.2(f)]; *In re Zaclon Inc.*, Docket No. RCRA-05-2004-0019, 2006 EPA ALJ LEXIS 24, at *46 (May 18, 2006). In order to satisfy their burden, Respondents must provide documentation showing a known market for the use of Unitene as a fuel, or, at the very least, documentation showing that a second company burns Unitene for energy recovery. *In re Zaclon*, 2006 EPA ALJ LEXIS 24, at *46 (concluding that a material was a solid waste because the respondents failed to provide documentation of a second person using the material as an ingredient). Respondents have provided no such documentation.

[redacted] Because Respondents have not even attempted to demonstrate that burning is Unitene's normal use, this Court should conclude that Unitene is a solid waste when burned.

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understand that the act of using a material as a fuel in one instance does not indicate that burning is that material's normal use. *See* Complainant's Initial Post-Hearing Brief at p. 41, n.18.

[19] Respondents' argue, unconvincingly, that even if Unitene is not normally used as a fuel, turpentine is. Respondents' Response at pp. 56-57. However, Respondents fail to address the fact that EPA has already plainly stated, "Turpentine is not a widely used commercial fuel." *See* Complainant's Initial Post-Hearing Brief at p. 43. Respondents also fail to address the significance of the fact that turpentine lacks ASTM fuel standards. *See id.*

Even if this Court were to adopt Respondents' "original purpose" standard, Respondents have not demonstrated that Unitene products were used for their original intended purpose. In fact, the record proves that the opposite is true. [redacted]

It is difficult for Respondents to persuasively argue that burning is Unitene's intended use when the evidence to the contrary is so overwhelmingly clear.[20] Therefore, burning is not Unitene's intended or normal use, and Unitene is a solid waste.

4. Unitene AGR Is a Characteristically Hazardous Waste

Conceding that both Unitene LE and the JLM materials are hazardous, Respondents next argue that EPA has not met its burden in establishing that Unitene AGR is characteristically hazardous. Respondents' Response at pp. 54-55. Respondents' reasoning is unpersuasive for several reasons.

[redacted]

[20] *See* Complainant's Initial Post-Hearing Brief at pp. 40-44 (EPA's detailed discussion of Unitene's status as a discarded commercial chemical product).

[redacted] Accordingly, Unitene AGR is characteristically ignitable pursuant to 40 C.F.R. 261.21(b).

Second, Respondents argue that the waste codes applied to Unitene AGR before it was sold do not indicate that Unitene AGR is characteristically hazardous. Respondents' Response at pp. 54-55. [redacted] However, IFF is not as unsophisticated as it urges this Court to believe. [redacted]

[redacted]

In light of the information set forth above, Respondents cannot argue that IFF "disposed of all its waste, both hazardous and nonhazardous, using the same generic waste profile." Respondents' Response at p. 55. Such an argument is merely another example of Respondents submitting to this Court an assertion that is simply untrue.

[redacted]

[redacted]

[redacted] Respondents offer no explanation as to why Mr. Clark's explanation is incorrect and an inaccurate explanation for the application of Unitene's waste codes.

[redacted]

[redacted]

[redacted]

Based on reasoning above, Respondents' attempts to evade RCRA regulation through distraction and misleading assertions are unpersuasive. Accordingly, EPA has satisfied its burden to demonstrate that Unitene LE and Unitene AGR satisfy each of the *Brenntag* factors; therefore, they are by-products. *See* Complainant's Initial Post-Hearing Brief at pp. 19-39. Should this Court find that Unitene LE and Unitene AGR are products or co-products, this Court must also find that they are commercial chemical products, which are also regulated when burned for energy recovery. *See* OAC § 3745-51-02(C)(2) [40 C.F.R. § 261.2(c)(2)]. Respondents have not satisfied their burden in demonstrating the exception to this regulation: that burning for energy is Unitene's "normal use." *See* Complainant's Initial Post-Hearing Brief at pp. 40-44. Therefore, Unitene is not a "fuel itself" and the exception to regulation is

[21] Respondents may argue that the reduction in contaminants is attributable to decreased production of Iso E Super. However, no evidence suggests that IFF decreased production to the degree observed in the reduction of contaminants. Respondents also may argue, once again, that what may look like persuasive evidence is yet another example of IFF's oversight and overall careless operations. However, this Court must view such assertions with skepticism, for IFF's feigned ignorance cannot save Unitene from RCRA regulation.

inapplicable. Regardless of whether Unitene is a by-product or co-product, it constitutes a material subject to RCRA regulation when burned for energy recovery.

III. Affirmative Defense

As explained in Complainant's Initial Post-Hearing Brief, the only remaining affirmative defenses in this case are[22]:

- Combined Second, Third and Fourth defenses: selective enforcement
- Seventh defense: fair notice as to the JLM/K022 hazardous waste

Respondents' Response fails to address the selective enforcement defense. However, Respondents continue to asset a fair notice defense as to the JLM/K022 hazardous waste (Respondents do not raise a fair notice defense as to the IFF/Unitene hazardous waste). This issue is addressed in Section V.E.2 of Complainant's Initial Post-Hearing Brief, which is incorporated herein.

As for case law, both EPA and Respondents cite to the leading case on the "fair notice" affirmative defense, which is *Gen. Elec. Co. v. EPA*, 53 F.3d 1324 (D.C. Cir. 1995). *See* Order on Motions for Accelerated Decision at p. 31. In that case, the Court found that to determine whether the violator has received notice:

> we must ask whether the regulated party received, or should have received, notice of the agency's interpretation in the most obvious way of all: by reading the regulations. If, by reviewing the regulations and other public statements issued by the agency, a regulated party acting in good faith would be able to identify, with "ascertainable certainty," the standards with which the agency expects parties to conform, then the agency has fairly notified a petitioner of the agency's interpretation.

[22] Other affirmative defenses in this case have been stricken, withdrawn, or restricted to penalty consideration only. February 14, 2012 Order on Complainant's Motion to Strike Affirmative Defenses.

Gen. Elec. Co. v. EPA, 53 F.3d at 1329.

Based on this articulated standard, the Environmental Appeals Board elaborated on what is required for adequate notice:

> [P]roviding fair notice does not mean that a regulation must be altogether free from ambiguity. Indeed, the case law shows that even where regulatory ambiguity exists, the regulations can still satisfy due process considerations. * * * Thus, the question is not whether a regulation is susceptible to only one possible interpretation, but rather, whether the particular interpretation advanced by the regulator was ascertainable by the regulated community.

In re Coast Wood Preserving, Inc., EPCRA Appeal No. 02-01, 2003 EPA App. LEXIS 4, at **54-55 (May 6, 2003)(quoting *In re Tenn. Valley Auth.*, Docket No. CAA-2000-04-008, 2000 EPA App. LEXIS 25 at **120-121 (Sept. 15, 2000)).

These cases were cited with approval in the leading Environmental Appeals Board (EAB) case on "fair notice", *In re Howmet Corporation*, RCRA (3008) Appeal No. 05-04, 2007 EPA App. LEXIS 19 (May 24, 2007), *aff'd, Howmet Corp. v. EPA,* 656 F. Supp.2d 167 (D.D.C. 2009), *aff'd, Howmet Corp. v. EPA*, 614 F.3d 544 (D.C. Cir. 2010).[23] The Court in *Howmet* looked at several factors to decide whether Howmet could have determined "with ascertainable certainty" that the material would be regulated:

- the text of the regulations
- the regulations as a whole
- the regulatory history and agency interpretive guidance
- any respondent inquiries as to the meaning of the regulation at issue

Id. at **84-93. EPA examined all four factors in its April 2, 2012, Reply to Respondents' Response to EPA Motion for Accelerated Decision at Section F, and proved that Respondents' had fair notice as of the date of the K022 shipment. *See* Complainant's Initial Post-Hearing Brief at Section V.E.2.

[23] The facts of *Howmet* are discussed in Section I.A.1.a, above.

Respondents attack EPA's analysis by first citing to two cases which are not analogous to this case. First, Respondents cite to *Satellite Broadcasting Co. v. FCC*, 824 F.2d 1 (D.C. Cir. 1987). The issue in this case was whether applications had been timely submitted to the FCC at the correct location. The court found that there were conflicting FCC regulations and a news release and order announcing the proper location for application submittal. The court acknowledged "we normally defer to an agency's reasonable interpretation of its own rules," but nonetheless found the FCC's order dismissing the applications to be arbitrary and capricious. *Satellite Broadcasting Co. v. FCC*, 824 F.2d at 3. The instant case differs because it does not hinge on conflicting regulations. In addition, an examination of the following factors shows that EPA's interpretation is correct: the text of the regulations; the regulations as a whole; the regulatory history and agency interpretive guidance; and respondent inquiries as to the meaning of the regulation at issue. *See* April 2, 2012 EPA Reply to Respondents' Response to EPA Motion for Accelerated Decision at Section F. Respondents also cite to *Rollins Environmental Services, Inc. v. U.S. EPA*, 937 F.2d 649 (D.C. Cir. 1991). In *Rollins*, an ALJ agreed with EPA's interpretation of its regulations and found the respondent liable in an interlocutory order. *Id.* at 651. After a hearing on penalty, a second ALJ noted that Respondent's interpretation had a definite "plausibility" and assessed a penalty of zero. *Id.* The case was appealed to the Chief Judicial Officer, who determined that it was "inaccurate" to describe Respondent's interpretation as having a definite "plausibility", and moved the penalty to $25,000. *Id.* at 652. On appeal, the D.C. Circuit held that EPA's interpretation was "logically consistent" with the language of the statute and served a "permissible regulatory function". *Id.* (citations omitted). In a competition between meanings, the court stated that "the agency's choice receives substantial deference." *Id.* The court did however note that "various EPA offices" had been giving different interpretations

of the regulation and the EPA Office of General Counsel had stated that either interpretation could be supported by the regulatory language. *Id.* at 653. The court then reinstated the zero penalty. *Id.* In the present case there has been one consistent interpretation by EPA and the Ohio Environmental Protection Agency ("OEPA") of OAC § 3745-51-02 [40 C.F.R. § 261.2]. Furthermore, there has been no statement by EPA's Office of General Counsel indicating that Respondent's interpretation can be supported by the regulatory language.

Respondents' Response also focuses on the third and fourth *Howmet* factors: agency guidance and whether there were any respondent inquiries as to the meaning of the regulation at issue. As for Respondents' agency guidance argument (based on Louisiana approving a "test shipment" of K022 to Ohio) EPA's Initial Post-Hearing Brief addresses the legal implications of a state interpretation of a regulation which is contrary to a federal interpretation. The brief concludes that any regulatory determination by Louisiana should not be the basis upon which it is determined whether or not Respondents had fair notice of EPA's interpretation. *See* Complainant's Initial Post-Hearing Brief at Section V.E.2. In response, Respondents merely reiterate the information given in the May 2005 LDEQ letter, primarily by quoting the "spin" given to the letter by Respondents' witnesses Troy Charpia and Ernie Willis. Respondents completely failed to address *In re General Motors Automotive - North America*, RCRA App. 06-02, 2008 EPA App. LEXIS 30, at **219-30 (June 20, 2008). Respondents' Response at 62-63. Their argument is unconvincing.

Turning to the fourth *Howmet* factor, Respondents argue that they properly assumed that their interpretation was correct when an OEPA representative allegedly "had a positive view" of Respondents' interpretation. Respondents' Response at p. 63. To support their position, Respondents rely on heresay testimony provided at hearing by Respondent Lofquist (who signed

a criminal plea agreement in an unrelated matter on behalf of the Forster/Lofquist entity GEM, agreeing that GEM had willfully made a false, fictitious or fraudulent statement or representation to the federal government) rather than by calling OEPA staff to testify. Respondents' Response at 63; CX51. Furthermore, prior to December 20, 2005, and prior to the JLM/K022 shipment in November 2005, Respondents were well aware that Ohio EPA had not agreed with Respondent' interpretation regarding whether the recycling exclusion applied to the injection of high carbon-containing material in a blast furnace – and in fact Respondents knew that Ohio EPA personnel were skeptical of the interpretation.[24] Respondents may have even been aware of OEPA's final determination before the JLM/K022 hazardous waste shipment.

Respondents argue that they had no knowledge of EPA or OEPA's view of the relevant regulation as it applied to JLM's K022 until after the November 21, 2005 shipment. Respondents' Response at 58; CX2 at 2758-2773. However, it appears that Respondents may have in fact received this information earlier. *See* CX13 at EPA10296-304 (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"). Perhaps more significantly, it is clear that prior to the November 21,

[24] It is unknown whether the JLM K022 or the IFF Unitenes in fact contained high levels of carbon. Respondents have asserted that the materials do contain high levels of carbon because they contain high BTU levels. However, EPA's expert Francis Awanya disproved this notion: "BTU is usually not a unit that specifies what the carbon content is. It gives you, it's, like I say, it's a unit that is used for, to give energy, to describe energy, but not carbon content of material." Tr. 1287. Significantly, Respondents have presented no evidence that they ever analyzed JLM K022 or IFF Unitenes for carbon content.

2005 shipment, Respondents were on notice that regulators had deep reservations about Respondent's interpretation.

Respondents repeatedly requested, either directly or indirectly, that Ohio EPA agree with their interpretation of the recycling exclusion as it related to the injection of high carbon-containing material in the blast furnace. [redacted]

Respondents also assisted several other entities in asking OEPA about Respondent's interpretation. [redacted]

[redacted]

In *Howmet*, the respondents had not contacted regulators to inquire as to the acceptability of their interpretation of a RCRA regulation. That fact was weighted heavily in the court's determination that they were not entitled to the fair notice defense. *In re Howmet Corporation,* RCRA (3008) Appeal No. 05-04, 2007 EPA App. LEXIS 19 at *93 (May 24, 2007) ("By failing to seek regulatory guidance in a circumstance in which Howmet should have known it was pursuing a highly risky course of conduct, Howmet assumed the consequences associated with its actions and cannot now credibly claim that it was victimized by a lack of fair notice."), *aff'd, Howmet Corp. v. EPA,* 656 F. Supp.2d 167 at 174 (D.D.C. 2009) ("the Court agrees with the EAB that Howmet assumed a "calculated risk" in failing to inquire"), *aff'd, Howmet Corp. v. EPA*, 614 F.3d 544 (D.C. Cir. 2010). Here, Respondents did contact the regulators, who expressed concern regarding Respondents' interpretation. Respondents are therefore in an even worse position regarding fair notice, as compared with the respondent in *Howmet.* In summary, it is clear that the Respondents have not met their burden of proving the fair notice defense at to the JLM K022 hazardous waste.

IV. Direct Officer Liability of Officers

As this Court has noted, both parties believe that the appropriate standard for judging direct officer liability under RCRA is *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 (Feb. 28, 1992) ("Southern Timber II"). Order on Motions for Accelerated Decision at p. 17. In *Southern Timber II*, a person who was Secretary/Treasurer and 10% shareholder of corporation was not shown to be an operator and thus not personally liable under RCRA, where the evidence failed to show that he exercised active and pervasive control over facility operations and instead acted merely as a liaison between the corporation and State regulatory officials. In this case, EPA relies on much more than the positions held by and ownership percentages associated with Respondents Forster and Loquist. It is also clear that Respondents Forster and Lofquist acted as more than a liaison between the corporation and State regulatory officials. The evidence which supports EPA's position addresses the factors examined in the *Southern Timber II* decision is detailed in Complainant's Initial Post-Hearing Brief at V.A.5, and need not be repeated here. However, a few specific items contained in Respondents' Motion require a response, and are discussed below.[25]

First, Respondents assert that EPA confuses the activities of Respondents Forster and Lofquist in their roles at CIS versus their roles at GEM. Respondents' attempt to shift responsibility for and knowledge of the inquiries into the regulatory status of the waste at issue from Forster, Lofquist and CIS to GEM and the waste generators and brokers must fail.

[redacted]

[25] Respondents' discussion of "U.S. EPA's continued reliance on the Stein/Diamond Memo in this case" has also been the subject of briefing, and need not be addressed again here. *See* Complainant's Reply to Respondents' Memorandum in Opposition to Complainant's Motion for Partial Accelerated Decision at II.E.

[redacted] All indications are that there was little if no separation of duties between GEM and CIS for Forster and Lofquist. Thus, the actions Forster and Lofquist took on behalf of GEM can be attributed to the work of Forster and Lofquist at CIS.

Second, Respondents attempt to explain away [redacted] is one of many facts which show the relationship Respondents Forster and Lofquist had to CIS and tends to show pervasive control over the CIS facility.

Third, Respondents rely heavily on the presence and role of John Dzugan at the facility. However, the evidence is very clear: Respondents Lofquist and Forster were intimately involved

in ensuring that the K022, Unitene LE, and Unitene AGR were shipped to the facility. In fact, they were the decision makers on many, many other material streams which were sent to and accepted by CIS. As such, their respective roles in operations were critical. Furthermore, their respective roles in ensuring that CIS operations *specifically* included K022, Unitene LE, and Unitene AGR were critical. After all, Respondent Forster signed two letters from CIS to JLM which approved shipment of the K022 to CIS and provided shipment information. CX15 at EPA 11947; CX19 at EPA12366. Similarly, [redacted] *See also* Complainant's Initial Post-Hearing Brief at V.A.5.b and c.

Fourth, Respondents attack EPA for inaccurately predicting testimony of witnesses Charpia, Willis and Osiecki. *See* Order on Motions for Accelerated Decision at p. 30, footnote 36. In fact, EPA had merely stated that Durivage (who was not called by Respondents) or Osiecki were likely to testify about the active involvement of Respondents Forster and Lofquist given the sheer number of and certain content of the email traffic between them:

> As for Respondents' assertion that neither Donald DuRivage or Zygmunt Osiecki will testify as to the active involvement of Forster and Lofquist in the handling of hazardous waste, one need only look to the various emails between Forster and/or Lofquist and DuRivage or Osiecki to see that such testimony is likely. CX9 at EPA7241; CX21; CX22.

Complainant's Response to Respondents' Motion for Accelerated Decision at VII. In other words, Respondents are making much ado about nothing.

In conclusion, while Respondents question a few areas of EPA's analysis, they cannot refute the overwhelming evidence which shows that, under the factors examined in the *Southern*

Timber II decision, Respondents Forster and Lofquist are directly liable as operators in this case. *See* Complainant's Initial Post-Hearing Brief at V.A.5.

V. Penalty

EPA has satisfied its burden of proof as to the appropriateness of the proposed penalty in this case.

A. EPA's Proposed Penalty is Appropriate in This Case

1. The 2003 RCRA Civil Penalty Policy Should be Followed in This Case

The 2003 RCRA Civil Penalty Policy properly weighs the RCRA statutory penalty factors and should be followed in this case. The Respondents argue that only the statutory penalty factors should be considered when calculating a penalty in this case (Respondents' Response at p. 72). These factors are: "the seriousness of the violation" and "any good faith efforts to comply with applicable requirements." 42 U.S.C. § 6928(a)(3). EPA agrees that the statutory penalty factors must be taken into consideration, but also believes that the 2003 RCRA Civil Penalty Policy offers an appropriate method to calculate a penalty under RCRA because it is based upon the statutory penalty factors: "[t]he purposes of the Policy are to ensure that the RCRA civil penalties are assessed in a manner consistent with Section 3008". CX68 at EPA17363. In particular, the 2003 RCRA Civil Penalty Policy accounts for the seriousness of the violation in the gravity component of the method, and accounts for good faith efforts to comply in the adjustment factors component of the method. Several decisions have confirmed that the 2003 RCRA Civil Penalty Policy is an important tool to be used in the calculation of penalties under RCRA. *See* February 14, 2012 Order on Complainant's Motion to Strike Affirmative Defenses (citing to 2003 RCRA Civil Penalty Policy with approval); *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); *In re Aguakem Caribe, Inc.*, Docket No. RCRA-02-2009-7110,

2011 EPA ALJ LEXIS 24 at **128-177 (Dec. 22, 2011) (citing to Complainant's reliance on the 2003 RCRA Civil Penalty Policy with approval); *In re Blackington Common, LLC et al.*, Docket No. RCRA-01-2007-0164, 2009 EPA ALJ LEXIS 4 at *37 (Aprl. 23, 2009); *In re General Motors Automotive -- North America*, Docket No. RCRA-05-2004-0001, 2006 EPA ALJ LEXIS 17 at *148 (Mar. 30, 2006), *rev'd, In re General Motors Automotive - North America*, RCRA App. 06-02, 2008 EPA App. LEXIS 30 (June 20, 2008).

In addition, consideration of the 2003 RCRA Civil Penalty Policy is expected under the Consolidated Rules, which govern the assessment of administrative penalties under RCRA. *See* 40 C.F.R. § 22.1(a)(4). Under these rules, a civil penalty assessed by an ALJ must be consistent with 40 C.F.R. § 22.27(b), which states that "[t]he Presiding Officer shall consider any civil penalty guidelines issued under the Act." 40 C.F.R. § 22.27(b). Additionally, 40 C.F.R. § 22.27(b) requires that the amount of the penalty must be "in accordance with any penalty criteria set forth in the Act". 40 C.F.R. § 22.27(b). *See also* 42 U.S.C. § 6928(a)(3). As noted in Complainant's Initial Post-Hearing Brief at V.D.2, 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. *See In re Ram, Inc.*, RCRA Appeal Nos. 08-01 & 08-02, slip op. at 15, n.10 (EAB Jul. 10, 2009) (explaining that the Agency's penalty policies provide guidance in determining an appropriate penalty assessment by providing a framework for translating statutory factors into numerical terms in a uniform manner); *In re Aguakem Caribe, Inc.*, Docket No. RCRA-02-2009-7110, 2011 EPA ALJ LEXIS 24 at **132-33 (Dec. 22, 2011)(RCRA case noting that the EAB has emphasized "that the Agency's penalty policies should be applied whenever possible because such policies 'assure that statutory factors are taken into account.'",

citing *In re Carroll Oil Company*, RCRA (9006) Appeal No. 01-02, 2002 EPA App. LEXIS 14, at *53 (July 31, 2002)). *See also In re Lyon County Landfill*, CAA Appeal No. 00-5, 2002 EPA App. LEXIS 4 at **80-81 (Aprl. 1, 2002), *aff'd*, Docket No. 02-907 (JNE/JGL), 2004 U.S. Dist. LEXIS 10651 (June 7, 2004), *aff'd*, 406 F.3d 981 (8th Cir. 2005) (the Agency's penalty policies guide the ALJ and enforcement personnel "in determining an appropriate penalty assessment by describing a method for translating statutory penalty factors into numerical terms."); *In re Allegheny Power Serv. Corp.*, CAA Appeal No. 99-4, 2001 EPA App. LEXIS 3, at *46 (Feb. 15, 2001), *aff'd*, No. 6:01-cv-241 (S.D. W.Va. Apr. 5, 2002) (the policies "provide a framework that allows a presiding officer to apply his or her discretion to statutory penalty factors, thereby facilitating a uniform application of the factors.").

Respondents complain that the 2003 RCRA Civil Penalty Policy "overweights the factor of potential harm to the environment" and "underweights the factor of "good faith". Respondents' Response at p. 74.[26] Yet Respondents offer no evidence that this is true – they

[26] While arguing that the 2003 RCRA Civil Penalty Policy should not be followed in this case, Respondents also complain that: (1) EPA rigidly adheres to the concept of strict liability; (2) EPA has failed to prove that the violations were knowing or willful; and (3) EPA has not presented evidence of actual or potential harm to human health or the environment. Respondents' Response at pp. 73-74. As to the first point, RCRA is a strict liability statute, but if 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, that may be relevant to penalty. *See* February 14, 2012 Order on Complainant's Motion to Strike Affirmative Defenses at p. 13. In this case, Respondents were not without sufficient knowledge or ability to properly characterize the material in question and/or were not otherwise misled with

merely explain how *if* it were true, it *may* result in a lower penalty calculation. Furthermore, the 2003 RCRA Civil Penalty Policy does *not* err in the weight of these factors. This is borne out by the fact that many tribunals have relied upon the policy. In conclusion, EPA has properly applied the policy, and there is no reason to disregard the policy in this matter.

2. EPA Properly Considered the "Seriousness of the Violation" Statutory Factor

Respondents state that the statutory factor "seriousness of the violation" is merely a "question of harm or potential harm [to human health or the environment]". Respondents' Response at p. 74. However, as reflected in the 2003 RCRA Civil Penalty Policy, a more accurate measure of "seriousness of the violation" is to examine *both* potential for harm *and* extent of deviation from a statutory or regulatory requirement. CX68 at EPA17370. After all, it makes logical sense that a complete failure to comply with applicable law/regulations (which is the case for most counts in this case) would face a higher penalty than a case where the violator deviates somewhat from the applicable law/regulations. CX68 at EPA17374-76.

The 2003 RCRA Civil Penalty Policy also further breaks down potential for harm into risk of exposure and harm to the RCRA regulatory program. This makes logical sense since certain violations may not pose a direct risk of exposure, but may directly increase the threat of

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respect to the nature of the material. *See* Complainant's Initial Post-Hearing Brief at V.D.4.b. Second, although Respondents' actions were arguably willful, EPA did not adjust the penalty for "degree of willfulness and/or negligence" as provided in the 2003 RCRA Civil Penalty Policy. Finally, Section V.A.2, below, explains that EPA need not present evidence of actual harm to obtain a substantial penalty, and Complainant has presented more than sufficient evidence regarding potential harm posed by the violations in this case.

harm to human health and the environment (for example, failure to comply with financial assurance violations and operating without a permit). CX68 at EPA17371-74.

a. Potential for Harm

As far as harm is concerned, Respondents argue that the 2003 RCRA Civil Penalty Policy "overweights the factor of potential harm to the environment", that EPA has presented no evidence of actual harm, and that EPA has overstated the potential harm in the case. Respondents' Response at pp. 74-80. As an initial matter, a good indication that the 2003 RCRA Civil Penalty Policy does not weigh the factor of "potential harm to the environment" too heavily is that many tribunals have relied upon the policy when calculating penalties for RCRA violations. See V.A.1, above.

In terms of harm posed to human health and/or the environment, evidence presented by EPA has in fact emphasized *potential* harm – as does the 2003 RCRA Civil Penalty Policy. CX68 at EPA17370. In particular, the evidence shows a high probability of exposure and a very serious potential for contamination. *See* CX198 at EPA026817-18, EPA026825, EPA026831-32, and EPA026838-39. Respondents argue that violations involving "mere *potential* for harm" rather than actual harm, is not worthy of a seven-figure penalty (Respondents' Response at 74-75). However, Respondents underestimate the significance of violations which pose a potential for harm. For example, one of the highest administrative penalty awards to date was based on a penalty analysis which considered potential harm alone (not actual harm). *In re Euclid of Virginia, Inc.*, Docket No. RCRA-3-2002-0303, 2006 EPA ALJ LEXIS 34 (Nov. 9, 2006) (RCRA and UST matter where penalty awarded was $ 3,085,293). On appeal, the EAB held as follows:

> Euclid's argument about the lack of harm to the environment is also of no avail. It is a well-settled principle that proof of actual harm to the environment need not be proven to assess a substantial penalty.

In re Euclid of Virginia, Inc., RCRA (9006) Appeal 06-05 & 06-06, 2008 EPA App. LEXIS 13, at *184, (Mar. 11, 2008) (citations omitted). *See also In re Rocky Well Service, Inc. & Edward J. Klockenkemper*, SDWA Appeal Nos. 08-03 & 08-04, 2010 EPA App. LEXIS 5, at *75 (Mar. 30, 2010) (SDWA case where EAB held that "Appellants are incorrect in asserting that the Region was required to demonstrate actual harm to the environment in order to assess a high level penalty in this matter"), *remanded, Estate of Edward J. Klockenkemper & Rocky Well Service, Inc. v. EPA*, 2012 U.S. Dist. LEXIS 38234 (Mar. 21, 2012).

Respondents also attack specific evidence of potential harm which EPA has presented: potential harm to workers, local residents, and the Mahoning River. Respondents' Response at pp. 75-77. Turning first to workers at CIS, Respondents argue that the materials handled were not "toxic", that the hazardous wastes were thought to be "products" and therefore workers had more information than they would have if the materials had been handled as "waste", and that the CIS employees were "trained and well aware of the precautions needed to handle material with low flash points, such as Unitene LE." Respondents' Response at pp. 75-76. While it is true that the hazardous wastes at issue in this case were not characteristic hazardous wastes on the basis of toxicity as defined in 40 C.F.R. § 261.24, the hazardous wastes were nonetheless "hazardous". The reasons why they are regulated as "hazardous" are described in the underlying listing documents for K022, D001, D035, F003 and F005. CX124, CX125, CX126, and CX141. These listing documents describe the potential harm to human health and the environment which can occur when a facility is handling these hazardous wastes. Turning to the notion that workers receive more information about "products" than "hazardous wastes" at a given facility,

Respondents provided no evidence regarding what information is given to workers when a "product" is delivered to a facility and managed by its workers – except to assert that at the CIS facility, workers allegedly had access to MSDSs as well as chemical content information on Certificates of Analysis and Bills of Lading. However, while we know such documents existed, there was no evidence presented regarding what documents workers were required to review or had access. On the other hand, we do know what kind of information is required to be given to workers at a hazardous waste TSD facility. As stated in the Complaint for this matter (at Count 4), personnel at a TSD facility must 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. OAC § 3745-54-16(A)(1) [40 CFR § 264.16(a)(1)].

[redacted]

Looking next at Respondents' argument regarding the Mahoning River, the Respondents indicate that the river and the CIS and WCI facilities are in "general proximity" to one another, but complain that EPA did not introduce evidence of a specific pathway for spills or releases to the Mahoning River. In fact, the CIS facility is in *close* proximity to the Mahoning River. [redacted]. Close proximity of a hazardous waste facility (without evidence of a specific pathway) to a surface water body has been deemed sufficient evidence of a potential for harm in other cases. *In re Stallworth Timber Co., Inc.*, RCRA (3008) Appeal No. 89-1, 1991 EPA App. LEXIS 24, at *13 (July 11, 1991) (RCRA case

where penalty assessed by ALJ, which relied upon the ALJ's determination that there was a major risk of harm due in part to the proximity of the hazardous waste storage facility to waters of the United States, was affirmed by the EAB); *In re Aguakem Caribe, Inc.*, Docket No. RCRA-02-2009-7110, 2011 EPA ALJ LEXIS 24 at *145 & *179 (Dec. 22, 2011) (RCRA matter where ALJ agreed that EPA's calculation of the gravity-based component of the penalty was correct – where EPA based a finding of a "major" potential for harm in part on proximity of the facility to the Caribbean Sea). It is not necessary to present evidence of a specific pathway to a water body in a RCRA penalty case.

Finally, [redacted].[27]

[27] Remarkably, Respondents accuse EPA of failing to present evidence they themselves wish existed: "Complainant could have introduced evidence of such in the case of the former WCI

b. Harm to the RCRA Regulatory Program

Similarly, Respondents' arguments that harm to the RCRA program should not be considered and that EPA has not demonstrated harm to the RCRA program in this case, are both unpersuasive. Respondents' Response at pp. 74-80. The EAB has consistently held that harm to the RCRA program is a critical component of any penalty calculation. *See In re Microban Products Company*, FIFRA Appeal No. 02-07, 2004 EPA App. LEXIS 13, at *75, n. 39 (May 12, 2004) (noting "we have previously stated that harm to a regulatory program is sufficient to justify a substantial penalty") (citations omitted). Harm to regulatory programs caused by failure to obtain a permit has been noted as being particularly problematic. *In re Vico Constr. Corp. and Amelia Venture Properties, L.L.C.*, CWA Appeal No. 05-01, 2005 EPA App. LEXIS 26 at *112 (Sept. 29, 2005) (stating that "[w]here a respondent has failed to obtain necessary permits or failed to provide required notice, such failure causes harm to the regulatory program. Thus, for example, in holding that a respondent's failure to obtain a RCRA permit prior to disposing of hazardous wastes was of major significance, we have stated that 'the RCRA permitting requirements go to the very heart of the RCRA program. If they are disregarded, intentionally or inadvertently, the program cannot function (citations omitted)"), *In re Vico Constr. Corp. and Amelia Venture Properties, L.L.C.*, CWA Appeal No. 05-01, 2006 EPA App. LEXIS 50 (Oct. 6, 2006), *In re Vico Constr. Corp. and Amelia Venture Properties, L.L.C.*, CWA Appeal No. 05-01, Docket No. CWA-03-2001-0021, 2008 EPA ALJ LEXIS 33 (Sept. 8, 2008); *In re Everwood Co., Inc., et al.*, RCRA (3008) Appeal No. 95-1, 1996 EPA App. LEXIS 12 at *29 (Sept. 27, 1996) ("the RCRA permitting requirements 'go to the very heart of the RCRA program. If they are

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plant but chooses to pretend that such facts do not exist, which is misleading." Respondents' Response at p. 77.

disregarded, intentionally or inadvertently, the program cannot function (citation omitted)"), *aff'd, Everwood Treatment Co., Inc. et al. v. EPA*, U.S. Dist. LEXIS 927 (Jan. 21, 1998). *See also In re Euclid of Virginia, Inc.*, RCRA (9006) Appeal 06-05 & 06-06, 2008 EPA App. LEXIS 13, at **285-86 (Mar. 11, 2008) (stating that under the RCRA penalty policy the failure to provide financial assurances is a major deviation from the regulatory requirements, with a moderate potential for harm to the environment and the regulatory program).

EPA's evidence regarding harm to the RCRA program is laid out in the Penalty Narrative. *See* CX198 at EPA026818, EPA026826, EPA026832, EPA026839. Respondents fail to respond to the bulk of the argument presented in that document, instead interjecting irrelevant argument and taking issue with several discreet sentences. Respondents start by asserting that "Complainant never identified anything Respondents could have or should have done differently". *See* Respondents' Response at p. 77. This is, of course, absurd given that the first document filed in this matter, the Complaint, details what Respondents "could have or should have done differently." Respondents continue by arguing that Respondents were aware of the RCRA program, Respondents correctly identified the potentially applicable regulation, Respondents actively sought guidance from OEPA and EPA, and conformed with OEPA's guidance. Respondents' Response at p. 77. This summary of events is unfortunately inaccurate, as proven by EPA in Complainant's Initial Post-Hearing Brief at V.D.4.b. *See also* Section III, above. Respondents' also again argue 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 – which has been shown to be untrue in Complainant's Initial Post-Hearing Brief. *See* Complainant's Initial Post-Hearing Brief at V.D.4.b. However, even if this was true, it cannot logically affect how one considers the violations which occurred

to have harmed the RCRA program – it really only goes to the factor "good faith efforts to comply".

With respect to the narrative for Count 1, Respondents object to the statement "This violation adversely affects EPA's ability to regulate the burning of hazardous waste." CX198 at EPA026818; Respondents' Response at pp. 78-79. However, it is not disputed that the hazardous waste sent from CIS to WCI was burned in a blast furnace. If CIS had a TSD permit, regulators and the regulated community (including WCI) would have been on notice that hazardous waste was being burned in the WCI blast furnace. It is widely known in the regulated community that blast furnaces which burn hazardous waste are subject to regulation. 40 C.F.R. Part 266, Subpart H. Failure to have a TSD permit led to the unpermitted, unregulated burning of hazardous waste in the WCI blast furnace. Thus, failure to have a TSD permit clearly impacted the integrity of the RCRA regulatory program – in particular, 40 C.F.R. Part 266, Subpart H.

Respondents also object to EPA's statement in the narrative for Count 1 regarding two of the criteria EPA used to arrive at a particular location in the "major/major" matrix: efforts at remediation and "seriousness of violation". Respondents' Response at pp. 79-80. As for "efforts at remediation", Respondents argue that they did not receive notice from EPA of the violation and therefore Respondents should not be punished for their failure to take appropriate action Respondents' Response at 79. However, there is evidence that Respondents *were* on notice that at least the Unitene LE material from IFF was a hazardous waste since documents which CIS had on file indicated that Unitene LE was a characteristic hazardous waste due to its ignitibility. CX29 at EPA16850 and EPA16854 (showing flashpoint of Unitene LE at 118 degrees). Further, even after the Respondents were undisputedly on notice of the violations involving the IFF

material - in fall 2011 when counsel for Respondents consulted counsel for EPA about the basis for the NOVs - Respondents still did not obtain a permit. And, Respondents have failed to get a permit to this day. As for "seriousness of violation", Respondents argue that EPA's alleged failure to pursue one of the generators of the hazardous waste, IFF, means that the failure of CIS to obtain a TSD permit is not "extremely serious". Respondents' Response at p. 79. However, EPA is clearly pursuing IFF (even though, among other things, the IFF facility is located in another EPA Region and there are many CBI logistics for EPA to consider). Tr. 833; CX59. Even if EPA was not pursuing IFF, that does not make *CIS' failure* to obtain a permit any less serious.

As for the narrative for Count 10, Respondents do not address the extent to which an LDR violation affects the RCRA regulatory program, but rather they state that CIS should not be "faulted for failure to warn WCI of LDR restrictions, handling precautions or any other requirements or warnings, when CIS itself did not possess that information", and also that EPA's alleged "failure to pursue and assert wrongdoing on the part of IFF…completely erodes Complainant's credibility in its assertion that CIS' actions caused serious harm to the RCRA program." Respondents' Response at pp. 78-79. Respondents' first contention assumes that Respondents did not have knowledge that the material being sent to WCI was hazardous waste. However, EPA has shown that Respondents knew that the JLM K022 and IFF Unitenes were hazardous wastes. *See* EPA Initial Post-Hearing Brief at V.D.4.b. Respondents' second contention assumes that EPA is not pursuing IFF, which is incorrect, as discussed above. However, even if EPA was not pursuing IFF, that fact would not erode the fact that the Respondents violations caused harm to the RCRA program. The same argument was attempted by a respondent and rejected by this Court in *In re 99 Cents Only Stores*, Docket No. FIFRA-09-

008-0027, 2010 EPA ALJ LEXIS 10 at **119-26 (June 24, 2010). In *99 Cents*, EPA pursued a FIFRA enforcement action against a distributer of an unregistered/misbranded pesticide, and the respondent distributer objected to the fact that EPA had not pursued enforcement against the manufacturer of the pesticide. *Id.* The respondent argued that EPA's claim of harm to the FIFRA program was undermined by EPA's failure to pursue the manufacturer. *Id.* at 120. The Court noted that the respondent had no selective enforcement defense (*see also* this Court's February 14, 2012 Order on Complainant's Motion to Strike Affirmative Defenses at pp. 7-11), and found that "to the extent Respondent believes that it has been unfairly allocated responsibility for the violations, it has always been within Respondent's control to attempt to act on its belief" by seeking indemnification by the manufacturer. *Id.* at *122-23. The Court concluded that "the lack of significant penalties imposed upon others does not provide a basis for reducing the penalty imposed upon Respondent". *Id.* at *124. Similarly, if Respondents believe they have been unfairly allocated responsibility for the violations, they have the ability to pursue a legal action against IFF. Further, just as in *99 Cents*, if EPA did not pursue penalties against IFF, that would not be a basis for reducing the penalty assessed against the Respondents.

Respondents also take issue with the fact that RCRA regulates materials as hazardous or non-hazardous in part depending upon end use. Respondents' Response at p. 80. Respondents argue that under this regulatory scheme there can be no harm or potential harm caused by a material no matter how it is used: "[w]hile the RCRA program may make a regulatory distinction as to the 'status' of these materials depending on the final use of the material [sic], from a practical non-regulatory 'harm' perspective, Complainant's shrill cries of serious potential harm fall completely flat". Respondents' Response at p. 80. However, when a hazardous waste is recycled (where there is "beneficial reuse" of a material – such as when Unitene was used as a

solvent), the material may not be technically regulated as "hazardous waste" under RCRA, but that does not mean it is not potentially dangerous and/or unregulated. *See* Tr. 842-43. As stated in EPA's RCRA Orientation Manual:

> RCRA hazardous wastes do not cease to be dangerous simply because they are being reused, recycled, or reclaimed. Many hazardous waste recycling operations may pose serious health and environmental hazards…Reuse, recycling, and reclamation should be viewed instead as ways of managing hazardous wastes which, if properly conducted, can avoid environmental hazards, protect scarce natural resources, and reduce the nation's reliance on raw materials and energy. Promoting reuse and recovery is certainly one of the goals of RCRA…
>
> …
>
> How a material is regulated under RCRA (i.e., whether or not it is a solid and potentially a hazardous waste) when it is recycled depends on what type of material it is, and what type of recycling is occurring. If the recycled material is not a solid waste, then it is not a hazardous waste and is not subject to RCRA Subtitle C requirements. However, if the material qualifies as a solid and hazardous waste, it is subject to RCRA Subtitle C jurisdiction.
>
> Many hazardous wastes can be recycled safely and effectively. To address the goal of encouraging recycling while protecting human health and the environment, EPA has tried to tailor the level of regulation to reflect the actual hazard of the recycling activity. In this approach to regulation, recycling standards range from full regulation to specialized standards to exemptions from regulation. Handlers of hazardous waste slated for recycling must determine what type of regulation they fall under based on the recycling activity being conducted and the type of material being managed.
>
> - Full Regulation
>
> Most recycled hazardous wastes are subject to full hazardous waste regulation. This means that handlers of these recyclable materials (i.e., persons who generate, transport, or store prior to recycling) are subject to the same regulations as handlers who are managing hazardous wastes prior to disposal.

RX88 at 01375-76. Respondents' argument that there can be no harm in failing to comply with RCRA regulations when managing a material which can potentially be regulated as a hazardous waste or a non-hazardous recycled material misses the fact that non-hazardous recycled material also has to comply with many of the same regulation as hazardous waste.

In summary, EPA properly considered the "seriousness of the violation" statutory factor, including both the "potential for harm" and the "harm to the RCRA regulatory program" components.

3. EPA Properly Considered the "Good Faith Efforts to Comply" Statutory Factor

When arguing how the "good faith effort to comply" factor should be applied in the penalty analysis in this case, Respondents believe that a downward adjustment to the penalty should be made (EPA made no adjustment, upwards or downwards) and Respondents have two main arguments: (1) there was no willfulness or intent by CIS and (2) Respondents did undertake good faith efforts to comply with the regulations in this case. Respondents' Response at pp. 80-83. As for the issue of willfulness or intent, the answer is that they probably did act willfully or with intent to violate the regulations. It is clear that Respondents had control over the events constituting the violations in this case (the Respondents had control over what material was coming into the CIS facility), the events were foreseeable (the Respondents were sophisticated parties with full knowledge of the RCRA definition of "solid waste"), the Respondents did not take reasonable precautions against the events constituting the violation, the Respondents knew or should have known of the hazards associated with the conduct, and the Respondents knew or should have known of the legal requirements which were violated (again, the Respondents were sophisticated parties with full knowledge of the RCRA definition of "solid waste").

As for whether Respondents undertook good faith efforts to comply with the regulations, the answer is no. The Respondents undertook efforts to determine what the regulatory status would be of what they called "high-carbon" materials which would be placed in a blast furnace – and when they got an answer they did not like, they proceeded to treat and store "high carbon" materials anyway. *See* EPA's Initial Post-Hearing Brief at V.D.4.b.

Also worth noting is Respondents' discussion of the history of noncompliance. (Respondents' Response at p. 81, footnote 35). Respondents argue that Respondents' history of noncompliance is irrelevant because: (1) prior notices of violation, the state complaint, and prior federal actions do not show a pattern of noncompliance and (2) the prior notices do not relate to the CIS facility. However, the 2003 RCRA Penalty Policy clearly explains that:

> A history of noncompliance can be established even in the absence of similar violations, where there is a pattern of disregard of environmental requirements contained in RCRA or another statute. Enforcement personnel should examine multimedia compliance buy the respondent, and, where there are indications of a history of noncompliance, the penalty should be adjusted accordingly.
> For the purposes of this section, a "previous violation" includes any act or omission for which a formal or informal enforcement response has occurred (e.g., EPA or State notification of violation, warning letter, complaint, consent agreement, final order, or consent decree. [footnote omitted] The term also includes any act or omission for which the violator has includes any act or omission for which the violator has previously been given written notification, however informal, that the Agency believes a violation exists.
>
> In the case of large corporations with many divisions or wholly-owned subsidiaries, it is sometimes difficult to determine whether a previous instance of noncompliance should trigger the adjustments described in this section. New ownership often raises similar problems. In making this determination, enforcement personnel should attempt to ascertain who in the organization had control and oversight responsibility for compliance with RCRA or other environmental laws. The violation will be considered part of the compliance history of any regulated party whose officers had control or oversight responsibility.
>
> In general, enforcement personnel should begin with the assumption that if the same corporation was involved, the adjustments for history of noncompliance should apply. In addition, enforcement personnel should be wary of a party changing operators or shifting responsibility for compliance to different persons or entities as a way of avoiding increased penalties. The Agency may find a consistent pattern of noncompliance by many divisions or subsidiaries of a corporation even though the facilities are at different geographic locations. This often reflects, at best, a corporate-wide indifference to environmental protection. Consequently, the adjustment for history of noncompliance probably should apply unless the violator can demonstrate that the other violating corporate facilities are independent.

CX68 at EPA17395-96. In this case, Michael Beedle evaluated the factors specified in the 2003 RCRA Civil Penalty Policy: how similar the previous violation was; how recent the previous violation was; the number of previous violations; and the violator's response to the previous violations in regard to correction of the problem. CX68 at EPA17395. He concluded that, although an upward adjustment of 25% of the gravity-based and multi-day components was possible under the 2003 RCRA Civil Penalty Policy (or from 26-40% under unusual circumstances), an upward adjustment of only 5% was appropriate in this case. CX68 at EPA17393.

Finally, Respondents provide much speculation regarding the fact that EPA dropped the "Beyond BEN" component of its proposed penalty (arguing, among other things, that it was dropped because EPA has no evidence to support seeking it). But EPA gave no reason for amending the Complaint in this manner beyond a review of the May 18, 2012 Order on Motions for Accelerated Decision. Respondents did not object to EPA's motion to amend the Complaint and cannot now draw any magical conclusions they wish regarding why the filing was made by EPA.

In conclusion, EPA properly considered the "good faith efforts to comply" statutory factor.

4. Respondents' Proposed Gravity-Based Penalty is Not Appropriate in This Case

Respondents suggest that if liability is established, the maximum penalty should be $23,900 ($5,000 for treating and storing JLM/K022 hazardous wastes and $18,900, at $100 per truckload, for treating and storing Unitene hazardous wastes), and a multi-day component should not be assessed if liability is only found for the single JLM/K022 shipment. Respondents' Response at pp. 84-85. Respondents assert that this penalty would be sufficient to meet RCRA's

goals of punishment and deterrence. However, the 2003 RCRA Civil Penalty Policy gives a much more sophisticated analysis compared to Respondents' 'pulling numbers out of the air' technique. Furthermore, the 2003 RCRA Civil Penalty Policy addresses much more than punishment and deterrence – it ensures:

> that RCRA civil penalties are assessed in a manner consistent with Section 3008; that 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 requirements are eliminated; that penalties are sufficient to deter persons from committing RCRA violations; and that compliance is expeditiously achieved and maintained.

CX68 at EPA17363. As such, the methodology of the 2003 RCRA Civil Penalty Policy should be followed in this instance.

Specific problems with Respondents' penalty calculation 'method' include a failure to calculate multi-day penalties and a failure to provide real punishment and deterrence to Respondents. The multi-day component is critical since the statute itself authorizes "per day" penalties. 42 U.S.C. § 3008(a); CX68 at EPA17381-82. It is important for Counts 1 and 8 in this case (Counts 4 and 10 were calculated with a multi-event rather than a multi-day component) because Respondents were in violation of the statute and its implementing regulations for long periods of time.[28] Long violations merit large penalties. Multi-day penalties have been assessed and upheld in numerous decisions. *See, e.g., 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 (July 10,

[28] It should be noted that under the 2003 RCRA Civil Penalty Policy, multi-day penalties are mandatory for all days of violation where the gravity-based penalty is characterized as major-major (Count 1) or major-moderate. They are presumed appropriate where the gravity-based penalty is characterized as moderate-major (Count 8). CX68 at EPA17383-84.

2002); *In re Titan Wheel Corp.*, RCRA (3008) Appeal No. 01-3, 2002 EPA App. LEXIS 10 (June 6, 2002), *Titan Wheel Corp. v. EPA*, 291 F.Supp.2d 899 (S.D. Ia. 2003); *In re Aguakem Caribe, Inc.*, Docket No. RCRA-02-2009-7110, 2011 EPA ALJ LEXIS 24 (Dec. 22, 2011); *In re Zaclon, Inc., et al.*, Docket No. RCRA-05-2004-0019, 2007 EPA ALJ LEXIS 20 (June 4, 2007). Respondents make much of their assertion that the JLM/K022 shipment only remained at the facility for a short period of time, but even assuming that is true, there was never closure of the facility after that one shipment and therefore the violations continued after the material allegedly left the facility. Respondents' Response at pp. 84-85. See *In re Mercury Vapor Processing Technologies, Inc.*, Docket No. RCRA-05-2010-0015, slip op. at 97 (Dec. 14, 2012)("Respondents' contention that solid mercury [a hazardous waste] is not emitted by spent fluorescent lamps has no bearing on Respondents' obligation to ensure the hazardous constituents are not present at [the facility]. The [facility] may be entirely free of such materials, but Respondents are still obligated to perform closure activities in accordance with RCRA.") (See Attachment A).

Finally, it is hard to imagine that Respondents will be appropriately punished and deterred with such a small penalty. [redacted] It is difficult to imagine that individuals with such a large group of business entities would be punished or deterred by a penalty of $23,900. Indeed, they were not deterred by the combined fine of $20,000 in the Forster/GEM criminal matter. CX52; CX53.

D. The Economic Benefit Portion of Penalty Calculated by EPA is Appropriate in this Case

EPA calculated the appropriate amount of economic benefit in this case. Respondents disagree, complaining that EPA's witness Michael Beedle was not competent to calculate economic benefit and errors were made in the entry of data for EPA's economic benefit calculation. Respondents' Response at pp. 88-89. As explained in the 2003 RCRA Civil Penalty Policy, "For economic benefit penalties that are more substantial (generally more than $10,000), enforcement personnel should use the BEN model to calculate noncompliance economic benefits…The model can perform a calculation of economic benefit from delayed or avoided costs based on data inputs, including inputs that consist of optional data items and standard values already contained in the program". CX68 at EPA17389. The BEN model simply requires personnel to input data, and it performs the calculation itself. While it is true that Mr. Beedle was unable to respond to detailed questioning about "Weighted Average Cost of Capital" and "plant cost index", Mr. Beedle was not offered as an expert in economic benefit or in the detailed calculations which the BEN model computes. He merely offered information as to the data inputs he used when working with the BEN computer model. Tr. 524-534. Significantly, the Respondents did not present evidence to refute that the BEN computer model accurately calculates economic benefit. Respondents merely cross-examined Mr. Beedle on the intricacies of certain components of the BEN model. The extent of Mr. Beedle's knowledge of these intricacies have no bearing on whether or not his data input was correct or whether the BEN model accurately calculates economic benefit. A number of decisions have accepted EPA's use of the BEN model to calculate economic benefit. *See e.g., In re Brenntag Great Lakes, LLC*, Docket No. RCRA-5-2002-0001, 2004 EPA ALJ LEXIS 18 (June 2, 2004); *In re Tri-County Builders Supply*, Docket No. CWA-9-2000-0008, 2003 EPA ALJ LEXIS 38 (May 19, 2003); *In*

re Goodman Oil Co., et al., Docket No. RCRA-10-2000-0113, 2003 EPA ALJ LEXIS 4 (Jan. 30, 2003). As for errors made in the data entry completed for the economic benefit calculation, Mr. Beedle acknowledged that he discovered an error in operating the BEN model and promptly corrected it. Tr. 967-68. Respondents do not complain of any particular *uncorrected* errors. In summary, the economic benefit portion of penalty calculated by EPA is appropriate in this case.

VI. Conclusion

In conclusion, EPA has proven that the CIS facility treated and stored hazardous waste at its facility in Warren, Ohio, in violation of multiple regulations promulgated pursuant to the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901-6992k. Complainant's Initial Post-Hearing Brief. Specifically, EPA has proven that:

- CIS treated and stored three types of wastes (K022 from JLM as well as Unitene AGR and Unitene LE from IFF). *Id.* at pp. 65-66.
- The three types of wastes were both wastes ("solid wastes" under federal regulations) and hazardous wastes. *Id.* at pp. 12-44 and 59-65.
- The three types of wastes were solid wastes because they were discarded material by being recycled under OAC § 3745-51-02(C)(2) [40 C.F.R. 261.2(c)(2)] (burning for energy recovery). *Id.* at pp. 44-59.
- Unitene AGR and Unitene LE are hazardous wastes. *Id.* at pp. 60-65.[29]
- Respondents Forster and Lofquist have direct officer liability for the violations. *Id.* at pp. 67-84.
- A penalty of at least $1,579,173 is appropriate in this case. *Id.* at pp. 93-111.
- A compliance order requiring closure/post-closure and financial assurance is necessary in this case. *Id.* at pp. 125-126.

[29] Respondents acknowledge that the K022 from JLM, if it can be characterized as a solid waste, was a hazardous waste. Respondents' Initial Joint Post-Hearing Brief ("Respondents' Response") at pp. 32-58 (only addressing whether Unitene AGR and Unitene LE are solid and hazardous wastes).

- Respondents' affirmative defenses cannot defeat the liability of the Respondents. *Id.* at pp. 120-125.
- Respondents' affirmative defenses do not warrant a reduction in penalty. *Id.* at pp. 111-117.

The arguments to the contrary in Respondents' Response are not persuasive.

Respectfully Submitted,

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12/20/12
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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 Post-Hearing Reply Brief", dated December 20, 2012, was sent this day in the following manner to the addressees listed below:

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