BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC

In re:	)	
	)	
Carbon Injection Systems LLC,	)	
Scott Forster,	)	**RCRA Appeal No. 15-01**
and Eric Lofquist,	)	
	)	
Docket No. RCRA-05-2011-0009	)	
	)	

RESPONSE BRIEF

OF THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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I. Introduction

The United States Environmental Protection Agency ("EPA" or "Appellant") submits this response brief ("Response Brief") pursuant to the Environmental Appeals Board's July 14, 2015, Order identifying the issues to be addressed on *sua sponte* review and setting the briefing schedule, and in accordance with EPA's Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation or Suspension of Permits, 40 C.F.R. Part 22.

Respondents' Opening Brief position is based on the argument that Appellant's technical understanding of blast furnaces is outdated and, therefore, the Agency's long-standing position regarding the regulatory status of the material in question here should be disregarded. While Appellant disagrees that its technical understanding of furnace operations is "outdated," the issues relevant to this appeal do not hinge on technical expertise. The parties (including the experts testifying before the Presiding Officer) agree: 1) the secondary material injectants do not add immediate heat value to the furnace raceway upon injection; 2) the secondary material injectants do provide chemical energy necessary for production of iron from iron ore; and 3) the secondary material injectants do provide heat energy when the remaining blast furnace top gases are returned to the hot blast stoves where they are burned to create the hot blast (the hot blast, in turn, provides heat to the raceway).

Given the lack of disagreement on these key technical points, the legal issues presented are whether the phrase "burned for energy recovery" as used in in the definition of "solid waste" includes the recovery of chemical energy and whether, in the context of a blast furnace, that phrase includes processes such as heat energy recovery via the top gas returned to the hot blast stoves. Respondents' attempt to characterize Appellant's technical understanding as outdated

and unreliable is a strawman erected to undermine EPA's long-standing and considered determination of the meaning of the phrase in the industrial furnace context and as published in the Federal Register. In addition to this misplaced attempt to distract the Board from considering EPA's long-standing position, Respondents offer additional meritless arguments that necessitate a response, as set forth in Section III below.

II. Respondents are Wrong to Suggest that EPA's Long-standing Position on the Regulatory Status of These Secondary Material Injectants Should be Ignored

Respondents' primary basis for urging the Board not to consider EPA's long-standing position is that EPA's understanding of blast furnace operations, as described in the Federal Register preamble discussing the Cadence 312 product and as Appellant's expert testified, is based on an incorrect understanding of the effect of injectants on blast furnace temperature, is outdated, and is different from the way Respondents' experts understand blast furnaces to operate. Respondents' Opening Brief at 9-20. Therefore, Respondents argue, the Federal Register preamble language associated with the used oil and boiler and industrial furnace ("BIF") regulations (which also use the phrase "burning for energy recovery") should be ignored in interpreting the regulatory language. Respondents' Opening Brief at 20. In fact, the Cadence discussion of blast furnace operations is identical to the way the experts for both parties described blast furnace operations. Accordingly, the secondary material provided by CIS to WCI was burned for energy recovery, because the injectants were burned (i.e., oxidized) in the raceway, providing the necessary chemicals and chemical energy for the reactions[1] that convert

[1] Both Respondents and the Administrative Law Judge erroneously conclude that the recovery of energy from the combustion of hydrocarbon injectants must occur at the exact time and location where the injectants enter the blast furnace. Respondents do this by conflating the concepts of "burning" with "energy recovery." Respondents' state that "[b]urning generally is defined in terms of fire and heat" and that "a layperson would not be expected to use the word burn to mean a chemical reaction" and that the "chemical reaction described above by Professor

iron ore to iron. Further, the top gases, produced in part by the burning of the injectants, were used to fuel the WCI stoves that provided the hot blast (a significant portion of the heat energy in the blast furnace).

As the Opening Briefs indicate, the parties agree on the technical aspects of the furnace operations. First, EPA has never claimed that the initial combustion of a hydrocarbon injectant is exothermic in the raceway. In the Cadence discussion, EPA stated that upon initial combustion in the raceway the effect of a hydrocarbon injectant is endothermic, or heat absorbing.[2] 50 Fed. Reg. 49164 at 49172. Appellant's expert, Professor Fruehan, agreed with that conclusion. Tr. V at 129-1130; 11591175-1182 (Fruehan). Respondents' expert Dr. Poveromo also testified that the initial combustion in the raceway is endothermic. Tr. XI at 2546-2554 (Poveromo).

Fruehan simply is not "burning." Respondents' Opening Brief at 9-10; 12. Respondents argue that "burning" for "energy recovery" must take place in the raceway at the point of injection because that is the only place where the injectants are burned in the presence of oxygen. *Id.* at 11. Of course, all that is necessary is that the act of burning facilitate or cause the chemical energy to be recovered, a technical point upon which the experts agreed. The fact is, the hydrocarbon injectants are oxidized in the raceway, which produces reducing gases that provide both chemical energy to reduce iron oxide to iron in the blast furnace shaft and heat energy when the top gases are used in the stoves to heat the hot blast. Simply, the burning (oxidation) is what breaks off the carbon molecules from the coke and hydrocarbon injectants that combine with the oxygen to form carbon monoxide to enable the reduction reaction, *i.e.*, the reduction of iron ore by carbon monoxide to produce iron. Accordingly, the burning, *i.e.*, the oxidation of coke and hydrocarbons, is essential to the iron-forming reaction and is why the furnace is charged with coke and hydrocarbon injectants. The regulatory phrase "burning for energy recovery" is not limited in meaning to "substantial and useful heat energy upon initial combustion" and, therefore, is not limited in location to energy recovery in the raceway. Initial Decision at 66-83.

[2] EPA also noted in the Cadence discussion that "Cadence product, like other liquid fuel injectants, cools flame temperatures in the combustion zone. It also provides hydrocarbons for conversion to the reducing gases carbon monoxide and hydrogen, provides substantial, useful heat energy to the blast furnace, and thus enables operators to reduce the coke rate." 50 Fed. Reg. 49164 at 49173.

Second, the parties agree that the chemicals in the reducing gases created by the oxidation of hydrocarbons in the raceway provide energy that is absorbed in reactions to produce iron from iron ore. As cited numerous times by both parties, EPA explained the chemical reactions that take place in a blast furnace in more than one Federal Register preamble. 50 Fed. Reg. 49164 at 49172-49173; 52 Fed. Reg. 16982 at 16987. The chemicals that react with iron ore are produced when either coke or hydrocarbon injectants (substituted for some portion of coke) are oxidized (*i.e.*, burned) in the blast furnace raceway. The raceway is the only location in the blast furnace with the free oxygen necessary for the burning of coke and hydrocarbon injectants. Tr. V at 1153-1154, 1189 (Fruehan), Tr. XI at 2550 (Poveromo). There is no difference in the chemicals produced by oxidation of coke and the chemicals produced by the oxidation of hydrocarbon injectants. Tr. X at 2447-2448 (Rorick). Both the coke input and the hydrocarbon injectants produce carbon monoxide and hydrogen when oxidized in the blast furnace raceway. Appellant's expert, Professor Fruehan, testified at length about the various chemical reactions promoted by the reducing gases and how their chemical energy reduce iron ore to iron.[3] He also highlighted the Cadence discussion of chemical energy recovery. Tr. V at 1128-1130 (Fruehan). Respondents' experts, Dr. Poveromo[4] and Mr. Rorick, agreed that reducing gases provide chemical energy. Tr. XI at 2572 (Poveromo); Tr. X at 2482-2483

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[3] The American Iron and Steel Institute publication, titled "How A Blast Furnace Works," also provides a good explanation of the chemical reactions that take place in a blast furnace and the reduction of iron ore to iron. CX86 at EPA-18465-66. CX86 is in evidence.

[4] In his direct testimony, Dr. Poveromo also states that after the reducing gases leave the raceway and ascend into the blast furnace column, those gases react with the iron in both endothermic and exothermic reactions. Respondents' own expert thus clearly states that the reducing gases produced by the injectants provide exothermic energy outside the raceway. Tr. XI at 2546 (Poveromo).

(Rorick). CIS itself also explained that injectants "supply carbon feedstock to sustain a chemical reaction in the production of iron." CX24 at EPA-13137.

Respondents insist that in developing the used oil and BIF regulations, EPA intended to define "burning for energy recovery" to require only that sensible heat be produced. Respondents' Opening Brief at 14-19. This is false. EPA's express consideration of the chemical energy produced by the oxidation of injectants in the raceway is indicated by EPA's clear statement in the Cadence discussion that *carbon monoxide reduces* the *iron ore by* net *energy absorbing reactions* to produce iron.[5] 50 Fed. Reg. 49164 at 49172. In other words, the chemical energy contained in carbon monoxide is at least partially "used up" in energy absorbing chemical reactions as it reduces iron oxide to iron, whether the carbon monoxide is derived from coke or from the hydrocarbon injectants. This statement describes "burning for energy recovery" as including not just the sensible heat energy provided by the oxidized injectant but also the chemical energy provided by carbon monoxide. Appellant has not made up a new concept for litigation. EPA was aware of, and addressed, the chemical energy produced by the oxidation of hydrocarbon injectants and the use of that chemical energy in iron-making thirty years ago in 1985.

Third, the parties agree the use of the blast furnace top gases provide sensible heat energy by being used as a fuel in the stoves that produce the hot air blast. In the Cadence discussion, EPA addressed the heat energy released from the *subsequent* reactions of hydrocarbon injectants outside the combustion zone, *i.e.*, outside the raceway. Specifically, EPA explained how the excess reducing gas contained in the top gas that was not used to reduce the iron oxide gives the

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[5] "The carbon monoxide reduces the iron ore by [net] energy absorbing reactions to produce pig iron." 50 Fed. Reg. at 49172.

top gas substantial heating value, and that the top gas is used as fuel in the stoves that are used to preheat the air that is used in the hot blast. 50 Fed. Reg. 49164 at 49172. The top gas is also used in other heating applications within the mill. *Id.* Appellant's expert, Professor Fruehan, and Respondents' expert, Dr. Poveromo, both discussed the use of the blast furnace top gases to provide sensible heat energy by use as a fuel in the stoves producing the hot air blast. Tr. V at 1125, 1133 (Fruehan); Tr. XI at 2570-2571 (Poveromo). Respondents' attempt to confine EPA's references to "heat energy" to sensible heat in the raceway, which EPA has never claimed to exist, ignores EPA's discussion of the heat energy contributed to the blast furnace when the top gas (including top gas from the injectant) is used as a fuel in the stoves to heat the hot blast.[6]

Simply put, there is no reason to ignore the Federal Register preamble language in assisting in the interpretation of the phrase "burned for energy recovery." The testimony of the experts is consistent with EPA's understanding of blast furnace operations and the production of iron from iron ore as published in the Federal Register. In the 1985 preamble to the used oil and BIF regulations, EPA expressly included the recovery of chemical energy from the use of hydrocarbon injectants in blast furnaces as one of the forms of energy provided by the injectants. The EAB should rely on the Federal Register statements for assistance in interpreting the meaning of the phrase "burned for energy recovery" to include "chemical energy" and should not limit the phrase to mean "substantial and useful heat energy" as the Respondents urge and as the ALJ erroneously held. Further, as discussed below, Appellant established that blast furnaces, including the WCI blast furnace, use the top gas to produce heat energy.

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[6] The blast furnace energy balance table in the Cadence discussion reflects not only the use of the top gas in the stoves, it includes in the footnote to the table a notation of the energy values in the top gas and the energy used in the stoves, and states: "Energy provided from coke and fuel oil (in the form of excess carbon monoxide and hydrogen) and partially recycled as hot blast." 50 Fed. Reg. 49164 at 49173.

III. Respondents Raise Numerous Other Meritless Arguments that Provide No Support for the Interpretation that They Are Advancing

A. WCI's Use of the Top Gas as Fuel for the Hot Blast Stoves is More Than "Theoretical," and Appellant Met Its Burden Of Proof on That Issue, Which Was Unrebutted by Respondents

Respondents assert that any energy recovery from the burning of the top gas in the hot blast stoves is "theoretical," drawing on the ALJ's erroneous conclusion that Appellant had not proved that the product sold by CIS to WCI provided heat energy to the blast furnace. Respondents' Opening Brief at 32-33; Initial Decision at 85-87. As discussed above, industry practice is for the blast furnace top gas to be burned as fuel in the stoves used to create the hot blast. WCI's use of the top gas at the WCI blast furnace as hot blast stove fuel is more than theoretical. Regarding use of top gas at the WCI facility specifically, a 1986 blast furnace gas utilization study included in the administrative record for the used oil and BIF regulations demonstrates that, when it was owned and operated by LTV Steel, the WCI blast furnace used 39% of the blast furnace top gas in stoves to heat the hot blast, and 57% of the blast furnace gas in boilers. A copy of the study is attached (Attachment A).[7] Further, Mr. Rorick testified that between 2005 and 2008, the WCI furnace had hot blast stoves.[8] Tr. X at 2496-2499 (Rorick). All of the experts discussed the value of the top gas, and Respondents agreed that the top gas is a valuable plant fuel to be used wherever it can be most effectively used. Tr. V at 1125 (Fruehan); Tr. XI at 2570-2571 (Poveromo). Further, Mr. Rorick explained, without qualification or making an exception, that in blast furnaces the top gas is contained in a closed system. Tr. X at

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[7] The EAB may take official notice of documents in the public domain. *In re Howmet Corporation,* 13 E.A.D. 272, at n. 32 (EAB 2007).

[8] Mr. Rorick was employed by blast furnaces, including WCI, for his expertise, presumably to make their iron production more efficient. Tr. X at 2494-2502.

2443-2444 (Rorick). All of this is consistent with the American Iron and Steel Institute publication, "How A Blast Furnace Works," describing how blast furnaces produce the hot blast by burning the top gas in the stoves. CX86. The discussion is not qualified as applying to only some blast furnaces, and no alternative disposition of the top gas is suggested. CX86 at EPA-18466; EPA-18467. Based on these facts, the only reasonable conclusion is that WCI used its top gas, in part, to fuel its hot blast stoves. This conclusion is consistent with EPA's description of blast furnace operations: "[g]ases drawn off the top of the furnace contain excess carbon monoxide to give the gas a heating value of about 90 Btu/ft^3. About one third of this furnace gas is used as a fuel in stoves to preheat the combustion air (i.e., the hot blast). The remainder of the furnace top gas is used as a fuel in a boiler plant or in other heating applications within the steel plant." 50 Fed. Reg. 49164 at 49172. In sum, Appellant met its burden of going forward with the evidence and met its burden of establishing that it was more likely than not that WCI blast furnace top gas provided heat energy used in the blast furnace operation. Respondents presented no evidence to the contrary.[9]

B. Respondents Provide No Support for the Distinction They Insist Exists Between the Regulation of Heat Energy Recovery on One Hand and Chemical Energy Recovery on the Other

On page 12 of its Opening Brief, Respondents acknowledge that the RCRA regulation of burning that results in heat energy recovery is fully appropriate but bristle at the notion of regulation of chemical energy recovery and insist that including chemical energy in the concept of "burned for energy recovery" would intrude on the manufacturing process/production process,

[9] Accordingly, the ALJ erred when she concluded that Appellant had not proved that the product sold by CIS to WCI provided heat energy to the blast furnace.

where RCRA does not belong.[10] Despite their promotion of this distinction, Respondents provide no logical rationale for why one type of energy recovery is unquestionably within the scope of RCRA while another is an affront to RCRA principles and an over-reach into manufacturing. There simply is no basis to conclude that the environmental impacts from heat energy recovery would be significantly different than the environmental impacts of chemical energy recovery.

RCRA Section 3004(q) specifically mandates that EPA regulate the use of waste fuel in industrial processes based on Congress' concern that these waste products would not be handled and processed appropriately. To the extent that the regulations reach into manufacturing processes, it is only because a facility chooses to burn waste as fuel, an activity akin to incineration of waste and clearly within the RCRA's congressional directive. *See NRDC et al. v. EPA, et. al*, 755 F.3d 1010 (D.C.Cir. 2015). The *NRDC* case vacated EPA's Comparable Fuels Exclusion at 40 C.F.R. §§ 261.4(a)(16) and 261.38 because it was found to be inconsistent with RCRA Section 3004(q). The Court stated "[f]rom the statute's mandatory and inclusive language we can only conclude that [in RCRA Section 3004(q)] the Congress intended to require that EPA regulate the production, burning for energy recovery and distributing/marketing of all such fuels derived from all listed hazardous wastes – with the sole express exclusions of (1)

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[10] At page 12-13 of their Opening Brief, Respondents argue that Congress intended for EPA to regulate waste generated by production processes, and not the production process itself. Respondents also acknowledge that regulating an industrial furnace burning a secondary material for energy recovery does not intrude on the production process, because energy recovery is not central to the usual function of industrial furnace, citing to the January 1985 preamble to the final definition of "solid waste." 50 Fed. Reg. 614. Respondents, however, then argue that it is an intrusion on the industrial process to regulate a material used in an industrial furnace to foster chemical reactions that are central to the usual function of the industrial furnace. Respondents ignore that a similar claim was raised by the manufacturer of Cadence product 312, and rejected by EPA roughly eleven months later in the November 1985 preamble to the used oil and BIF regulations published in the Federal Register. 50 Fed. Reg. 49164 at 49171, 49172-49173.

certain oil-containing petroleum refinery wastes that are converted into petroleum coke and (2) facilities that burn only de minimis quantities of hazardous waste [citation omitted]." *Id.* at 1019. RCRA regulations have no impact on furnaces using virgin materials but they may affect furnaces using waste materials, which Congress directed EPA to address to ensure protection of human health and the environment.

C. The Plain Meaning of a Phrase or Term Is Not Limited to Its Most Simplistic Meaning

As Appellant explained in its Opening Brief at page 9-12, Respondents and the Presiding Officer erred in concluding that the plain meaning of "energy" is limited to only heat energy. Appellant pointed out that "energy" does not necessarily have such a narrow plain meaning and, in addition to ordinary dictionary definitions, technical definitions may be appropriate to consult.

Respondents, on the other hand, argue that the plain meaning of the phrase "burned for energy recovery" should be the most simplistic meaning ascribed to a term by a layperson. Respondents' Opening Brief at 9-12. This may not be appropriate in the context of evaluating whether a secondary material is a RCRA-regulated "solid waste" when that material is being burned, such as in a blast furnace. As demonstrated by the expert testimony, blast furnace operations are complex and based on a precise balancing of materials[11] and temperature[12] with a goal of maximum efficiency in changing the chemical state of iron ore to iron, thus ensuring

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[11] "This is not haphazard. There is a specific science and technology for exactly how these layers are put in and exactly what shape they are put, how thick they are, how wide they are, there's a whole specific that deals with that by itself. . . ." Tr. X at 2375 (Rorick).

[12] Operators of the blast furnace can compensate for the effect of the injectants on temperature in the raceway by "reduc[ing] the blast moisture to as low as possible. That's putting in less alternate coal material so that helps restore some of the raceway heat balance. They can raise the blast temperature if they have the capability to do so. They could also enrich with additional oxygen. The additional oxygen would increase the coke burning rate and thereby generate exothermic energy to help substitute for the overall endothermic impact of the injectants." Tr. XI at 2547-2548 (Poveromo).

profitability. Tr. V at 1073-1084 (Fruehan); Tr. X at 2374-2380, 2386-2390, 2496-2502 (Rorick); Tr. XI at 2538-2558 (Poveromo). Blast furnaces and their operation are described with scientific terms, terms of art, and jargon familiar to industry insiders[13] but with which lay people would be unfamiliar. Tr. X at 2370-2380, 2386-2390, 2496-2502 (Rorick). Given this, the meaning of the phrase "burned for energy recovery" should not be limited to its most simplistic meaning when used to determine the regulatory status of secondary materials combustion. *See I/N Kote v. Hartford Steam Boiler Inspection & Ins. Co.*, 115 F.3d 1312, 1317-1318 (7th Cir. 1997) (in construing terms of an insurance policy covering a technical and complex industrial facility, the court applied an "intelligent layperson" test to interpret policy terms in relation to the industry generally).[14] Instead, the phrase "burned for energy recovery" should be interpreted in

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[13] "One of the confusing things for laypeople when you talk about blast furnaces is there are multiple languages going on at the same time and there is an awful lot of terms, scientific terms, any number of which have multiple meaning . . . . For operators it's easy, because we speak that language." Tr. X at 2371 (Rorick).

[14] The better approach is to interpret a phrase according to its plain meaning in the context of its application, in this case, in units where secondary materials are intentionally burned such as blast furnaces. As explained in *I/N Kote*:

> We also have rules of interpretation to contend with. Absent some indication that they are to be understood in a technical sense, we interpret insurance policies using the plain meaning of their words--the meaning to a layperson procuring the insurance. *See General Acc. Ins. Co. of America*, 86 F.3d at 677 (applying Indiana law; stating rule); *cf. Coley v. State Farm Mut. Ins. Co.*, 178 Ill. App. 3d 1077, 534 N.E.2d 220, 222, 128 Ill. Dec. 200 (Ill. App. Ct. 1989) ("Unless it is obvious that the language in a policy is used in a technical connotation, the language is accorded the meaning which common experience imparts."). A layperson is "one not belonging to some particular profession or not expert in some branch of knowledge or art." *Hermitage Corp. v. Contractors Adjustment Co.*, 166 Ill. 2d 72, 651 N.E.2d 1132, 1142, 209 Ill. Dec. 684 (Ill. 1995) (Freeman , J. dissenting) (quoting Webster's Third New International Dictionary 1281 (1993)). But when employing a plain meaning analysis, the meaning must not be reduced to that which would be understood by an uninformed layperson. If it were, it would be impossible to write insurance policies covering technical or complex facilities. We must consider language as an intelligent layperson would. As the district court noted in *Occidental Chemical Corp. v. American Manufacturers Mutual Ins. Co.*: "Turning to the

the context of the RCRA regulations, the preamble to those regulations, and the complex operations to which they apply. In that context, it necessarily includes the chemical energy produced by the injectants and used to reduce iron oxide to iron.

As a practical matter, these Respondents were sophisticated and knew the plain meaning of the phrase "burned for energy recovery" in the regulatory context. As Respondents were preparing to open their business in early 2005 and during the period of violation alleged in the Complaint (November 21, 2005, through February 27, 2009), Respondents demonstrated their considerable knowledge of blast furnace operations and the concept of "burning for energy recovery." See CX2 at 2809-2816; 2884-2885; 2758-2773; 2740-2742; 2752; 2801-2802; 2732-2739. Respondents were involved in complex chemical businesses for years, at both their GEM facility in Cleveland, and their CIS facility in Warren. *See* CX13 (contains exchanges between CIS officer Scott Forster and waste broker Innovative Waste Management, Inc. ("IWM"), providing details about the nature of materials being brokered to both GEM and CIS, as well as

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> language of the Policy, an obstacle arises in that a 'layperson' would be unlikely even to know what a 'trunnion assembly' is. It is appropriate to examine the language of the Policy as would a layperson who is knowledgeable about kilns and trunnion assemblies; what is to be guarded against is addressing the issue from the standpoint of one peculiarly knowledgeable about insuring such items or litigating such coverage." 820 F. Supp. 74, 76 (S.D.N.Y. 1993) (applying California law). The Supreme Court of Indiana has addressed this problem similarly while citing Black's Law Dictionary for the meaning of a policy term: "Black's Law Dictionary is exactly the type of source that an intelligent layperson might rely on when entering into a contract, including an insurance policy." *American States Ins. Co. v. Kiger*, 662 N.E.2d 945, 948 n.2 (Ind. 1996).

I/N Kote at 1317-1318.

Given Mr. Rorick's testimony cited in footnote 13, the simplest meaning of a term will not give the right meaning to that term. In the event that the language is deemed ambiguous if it can be understood more than one way, however, under *Howmet*, the analysis includes the consideration of other relevant materials. *Howmet* at 295.

interactions with state and federal regulators about the status of materials as hazardous or not hazardous – including K022).[15] Respondents chose to enter the business of supplying secondary materials containing hydrocarbons to the WCI blast furnace that may be regulated as hazardous waste depending on their use. *See* CX24 at EPA13139-13153 (the fuel agreement between WCI and CIS, including specifications in Exhibit A). Respondents were sophisticated enough to blend different inputs to provide on-specification product. *Id.* at EPA13153. Respondents knew about and understood the need for testing BTU content. *Id.* Further, Respondents (both directly and through brokers) lobbied different agencies to try to get an interpretation of regulations favorable to Respondents. See CX13 at EPA10109-10304. CIS chose to engage in this type of business venture and should be charged with understanding that something can be burned for the recovery of more than just sensible heat, like chemical energy, and is, therefore, subject to regulation.[16] *See United States v. Richter*, No. 13-1316 & 13-1319, 2015 U.S. App. LEXIS 13423, at *31 (10th Cir. July 31, 2015) (defendants were members of a "specialized and technical field" of electronic waste recyclers, a "highly regulated industry," and therefore should have understood the scope and stringency of Colorado waste regulations within the context of RCRA), *citing United States v. Weitzenhoff*, 35 F.3d 1275, 1279 (9th Cir. 1993) (holding that knowledgeable wastewater management professionals can be expected to understand the

[15] Indeed, Respondents were sophisticated enough to explain that "the purpose of each injection is to supply carbon feedstock to sustain a chemical reaction in the production of iron." CX24 at EPA13137. This shows that Respondents understood that their injectant supplied chemical energy. Any one at this level of suggestion could have read the Federal Register and understood EPA's regulatory intent in using the phrase "burning for energy recovery."

[16] It is just as true in this case as it was in *Howmet*, "this is not a case in which a respondent can credibly claim that it lacked the capacity to traverse the regulatory landscape or to engage the Agency. Indeed, the record rather depicts a sophisticated entity well versed with RCRA and well equipped to avail itself of Agency guidance." *Howmet* at 308-309.

meaning of a disposal permit, particularly in light of the context of the EPA's scheme for regulating wastewater).

IV. Respondents' Interpretation of Which Party Bears the Burden of Proof on the Various Issues Raised in the Case is Incorrect

As stated in its Opening Brief, EPA has the burden of proof (comprised of the burdens of presentation and persuasion) that the violations occurred as set forth in the Complaint and that the relief sought in the Complaint is appropriate. Furthermore, following EPA's establishment of a *prima facie* case, the Respondents have the burden of presenting any defense to the allegations set forth in the Complaint and any response or evidence with respect to the appropriate relief. The Respondents also have the burden of proof (again, comprised of both the burdens of presentation and persuasion) for any affirmative defenses. The Opening Briefs of the Parties do not differ significantly in their discussion of burden of proof, except (1) Appellant disagrees with the Respondents' description of *what* Appellant must prove in its *prima facie* case (*see* Respondents' Opening Brief at pp. 6-22 and EPA's Opening Brief at pp. 6-27 and 36-37) and (2) Appellant disagrees with that portion of the Respondents' Opening Brief which discusses the burden of proof associated with OAC § 3745-51-02(E). The Respondents state:

> Assuming Region 5 had established its *prima facie* case, resulting in a burden shift to Respondents, as footnote 30 details, Respondents demonstrated by a preponderance of the evidence that the injectants fall within the recycling provisions of Ohio Admin. Code § 3745-51-02(E)(l), thus, sustaining Respondents' burden of establishing an applicable defense. *See First City Nat'l Bank,* 386 U.S. at 366; *Eastern of NJ,* 77 F.Supp. at 980 [sic]. The burden then shifts back to Region 5 to persuade the judge that the materials are not recycled as require by Ohio Admin. Code § 3745-51-02(E)(l). *See* Ohio Admin. Code§ 3745-51-02(E)(2). Ohio Admin. Code §3745-51-02(E)(2) requires that Region 5 prove the recycled materials are burned for energy recovery as part of the recycling process (the same required to prove the materials are discarded by being recycled).

Respondents' Opening Brief at 37.[17]

[17] The correct citation is 770 F.Supp. at 980.

In fact, under OAC § 3745-51-02(E), a Respondent not only has the burden of proof (including the burdens of both presentation and persuasion) that the material in question is not a waste under OAC § 3745-51-02(E)(1), the Respondent also has the burden of proof (including the burdens of both presentation and persuasion) that the material does not fall within an applicable category on the list of materials which, although the materials may fall under OAC § 3745-51-02(E)(1), are nonetheless waste under OAC § 3745-51-02(E)(2).

Respondents assert that their secondary materials fall under OAC § 3745-51-02(E)(1). Respondents' Opening Brief at 35. Indeed, in footnote 30 of the Initial Decision, Chief ALJ Biro stated that "the materials could reasonably be found to have acted as ingredients in an industrial process to make a product, such that they would qualify for the recycling exemption set forth at OAC § 3745-51-02(E)(1)(a)." Initial Decision at 53, n. 30. But the Initial Decision also states that the materials would qualify under OAC § 3745-51-02(E)(1)(a) "provided that they were not also "burned for energy recovery [under OAC § 3745-51-02(E)(2)]." Initial Decision at 53, n. 30 (emphasis added). *See also In re Howmet Corporation,* 13 E.A.D. 272, 288 (EAB 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) (referring to a section of the federal equivalent to OAC § 3745-51-02(E)(1) as being subject to a "proviso", or condition, in the federal equivalent to OAC § 3745-51-02(E)(2)).

As a practical matter, this is not a question upon which the Board need opine to resolve this case, since whether or not the material in question was burned for energy recovery is addressed in the Appellant's *prima facie* case under OAC § 3745-51-02(C)(2). In other words, if Appellant is ultimately found to meet its burden under OAC § 3745-51-02(C)(2) in this case, Respondents' affirmative defense under OAC § 3745-51-02(E) would not be viable; it is

precluded by a finding that there is burning for energy recovery. But as a general matter a respondent raising an affirmative defense under OAC § 3745-51-02(E) has the burden to prove any applicable requirements in *both* OAC § 3745-51-02(E)(1) *and* OAC § 3745-51-02(E)(2).

V. Conclusion

We appreciate the opportunity to provide the Board with this information, and we are ready to provide any other information the Board deems necessary in this matter, including at oral argument.

Respectfully Submitted,

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9/14/15
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CERTIFICATE OF SERVICE

In re: Carbon Injection Systems LLC, Scott Forster, and Eric Lofquist
RCRA Appeal No. 15-1

I certify that the foregoing "Response Brief of the United States Environmental Protection Agency", dated September 14, 2015, was sent this day in the following manner to the addressees listed below:

An electronic filing was made to:

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