generated in a grey iron cupola foundry does not change or detract from the inherent characteristics in the baghouse dust that pose a potential threat to human health and the environment. Thus, from the standpoint of the CWA (which does not have a Bevill-type exemption), the hazardous characteristic of pollutants exposed to transport by storm water from the Leed facility is extremely relevant. The hazardous waste characteristics promulgated by EPA are intended to designate classes of waste "which are clearly hazardous by virtue of an inherent property." 55 Fed. Reg. 11798, 11799 (March 29, 1990). The toxicity characteristics for hazardous waste "have been established [to] provide a high degree of certainty that wastes exceeding those regulatory levels would pose hazards to human health and the environment if improperly managed ...." *Id.* In the case of lead and cadmium, the toxicity characteristics for hazardous waste are 5.0 mg/L for lead and 1.0 mg/L for cadmium using the toxic characteristic leaching procedure (TCLP). 40 C.F.R. § 261.24. These levels were derived from the then-effective National Interim Primary Drinking Water Standards developed under the Safe Drinking Water Act, which were 0.05 mg/L lead and 0.01 mg/L cadmium, with a dilution and attenuation factor of 100. 55 Fed. Reg. at 11799. At the time the hazardous characteristic waste levels for lead and cadmium were promulgated, the NIPDWS were the only available benchmarks for toxicity that were scientifically recognized and that also addressed chronic exposure. *Id.* at 11800; *see also id.* at 11804. Even the foundry sand and material on the ground identified by Mr. Quirin as sand sampled by DEP proved to contain high levels of lead and cadmium, beyond those considered hazardous under RCRA.

The levels of lead discharged in storm water from the Leed facility tested by Respondent's consultant also raise concern. The levels of lead in the storm water exceeded

EPA's action level for lead in drinking water (0.015 mg/L),21 in one instance by several orders of magnitude. *See* 40 C.F.R. § 141.80; Tr. 816 (Epps). The concentrations in Table 2 above are expressed in micrograms per liter. To convert micrograms per liter to milligrams per liter, one would divide by 1000, or move the decimal 3 places to the left. Thus, the 3,500 ug/L lead concentration identified as discharged from Outfall 1 (*see* Table 2 above; Stip. Ex. 1) equals 3.5 mg/L. Tr. 815-16 (Epps). The 28 ug/L lead concentration identified as discharged from Outfall 2 equals 0.028 mg/L. The 38 ug/L lead concentration identified as discharged from Outfall 3 equals 0.038 mg/L. The 27 ug/L lead concentration identified as discharged from Outfall 4 equals 0.027 mg/L.

Similarly, two of the three values for cadmium in Respondent's discharge exceed EPA's current maximum contaminant level for cadmium in drinking water of 0.005 mg/L. *See* 40 C.F.R. § 141.62. The 9 ug/L cadmium concentration identified as discharged from Outfall 1 (see Table 2 above; Stip. Ex. 1) equals 0.009 mg/L. The 4 ug/L cadmium identified as discharged from Outfall 3 equals 0.004 mg/L. The 5 ug/L cadmium identified as discharged from Outfall 4 equals 0.005 mg/L.

Dr. Ruth Prince, who is an expert in the field of toxicology, testified as to the potential harm to humans and the environment from the levels of lead on the Leed Foundry site available for discharge in storm water. Dr. Prince explained that lead is a particularly toxic substance because it has the ability to interact with many cellular structures.[22] EPA has identified levels of

---

[21] At the time the RCRA hazardous waste characteristic levels were promulgated, EPA had a maximum contaminant level for lead in drinking water of 0.05 mg/L. Shortly thereafter, EPA withdrew the MCL and set an action level for lead of 0.015 mg/L and a maximum contaminant level goal of zero (0) mg/L in part because EPA cannot identify any level of lead in drinking water that is clearly "safe" for human consumption. *See* 56 Fed. Reg. 26460 (June 7, 1991).

[22] Lead actually binds to these structures disrupting their functions. Tr. 909-910 (Prince). Lead exposure results in blood pressure elevation, kidney disease and nervous system impairment at blood levels as low as 20-30 micrograms

concern for lead in soil. For residential settings this is 400 milligrams of lead per kilogram ("mg/kg") of soil and for industrial settings it is 750 mg/kg. Tr. 925 (Prince). EPA has identified no-effect soil levels for lead of 11 mg/kg for birds and 56 mg/kg for mammals. Tr. 916-17 (Prince). Lead also negatively affects plants by inhibiting cell growth and function, including photosynthesis. Tr. 916 (Prince).

Lead is very toxic to aquatic organisms as well, and EPA has identified a criterion continuous concentration of 0.0025 milligrams per liter ("mg/l") for lead. It is one of the lowest water quality criteria set by EPA. Tr. 917 (Prince). Moreover, lead in aquatic sediment can adversely affect benthic aquatic organisms, and toxicologists have identified 128 mg/kg as the level of lead in aquatic sediment that is likely to have an adverse effect on those organisms.

Dr. Prince compared the above levels of concern to actual lead levels found during inspections at Leed. The amount of lead in the baghouse dust itself ranged from 69,000 mg/kg to 144,000 mg/kg. Tr. 919-20 (Prince); Tr. 391-97(Fellinger); CX 33. This is many orders of magnitude above the 400 – 750 mg/kg level for humans, the 11 mg/kg level for birds and the 56 mg/kg level for mammals. Similarly, the levels of lead in soil at the site were as high as 1,130 mg/kg and 1,530 mg/kg. Tr. 605-07 (Harsh); *see* Table 3 *supra*. See also, Tr. 921 (Prince) (units of micrograms per gram, i.e., ug/g, are equivalent to units of mg/kg. Both measures amount to parts per million, i.e., ppm). Dr. Prince opined that based on the levels of lead present, there is a likelihood of risk to humans. Tr 926-27 (Prince). She also opined that movement of lead laden materials down hill from the site would pose a likely risk to birds and small mammals on that

---

per deciliter ("ug/dl"). Tr. 911-913 (Prince). Serious kidney disease occurs at approximately 50 ug/dl, and frank neurotoxic effects occur at 40 to 120 ug/dl. While blood lead levels in the general American population are approximately 2.8 ug/dl, workers who are chronically exposed exhibit blood lead levels of 60 to 80 ug/dl. Tr. 910-11 (Prince). Any level of lead in the bloodstream of children will have deleterious effects. Tr. 915 (Prince). Lead effects birds and mammals much as it does humans by targeting the kidney and the nervous system. Tr. 916 (Prince).

hill. Tr 930 (Prince). As to the potential for harm to Mill Creek, Dr. Prince opined that, given the levels of lead found at the inlet to a storm sewer which leads to Mill Creek, there is a potential risk to the aquatic organisms in Mill Creek. Tr. 934-36 (Prince).

In addition, Dr. Prince compared levels of lead in the stormwater samples taken by Respondent, which were as high as 3.5 mg/l (*see* Table 2 *supra;* Stip. Ex. 1), to the 0.0025 mg/l criterion continuous concentration level set by EPA, Dr. Prince noted a 1,400 fold difference causing her to conclude that there is a risk posed to Mill Creek. Tr. 938-39 (Prince).

Respondent offered no evidence to rebut Dr. Prince's testimony.

The gravity of Respondent's violations was compounded by the fact that discharges from the Leed Foundry facility were frequent and virtually uncontrolled. As set forth above, Respondent's own consultant calculated that a 24-hour rainfall event greater than 0.01 (one one-hundreth) of an inch would cause storm water to discharge from the Leed facility. In the case of Outfall 4, this discharge would go directly to the municipal separate storm sewer and then to Mill Creek. Using more conservative assumptions, Dr. Hwang calculated that a 24-hour rainfall event of 0.22 (twenty-two hundredths) of an inch would cause storm water falling on Drainage Area 4 of the Leed facility to discharge through Outfall 4, and that a 24-hour rainfall event of 0.6 (six tenths) of an inch would cause storm water falling on Drainage Areas 1, 2 and 3 of the Leed facility to reach the municipal storm sewer. Thus, between March 1999 and January 2004, there were anywhere from 148 to 417 rainfall events (depending upon whether or not one uses Complainant's more conservative assumptions) that caused storm water falling on the Leed facility to discharge to the municipal storm sewer.

Moreover, Leed had implemented virtually no controls. Every inspector who testified characterized the Leed facility as one of the dirtiest sites he had seen. Tr. 239 (Cox); Tr. 259

(Cox); Tr. 285 (Feher); Tr. 620-21 (Harsh). As documented in Mr. Harsh's photographs, there was dust everywhere. The dust was so thick that it obscured paved areas and caused vehicles to leave distinct and deep tracks. The tipping hoppers were configured in such a manner as to allow fugitive baghouse dust to escape. The groundcover dust tested by DEP showed high levels of lead and cadmium. The loose dust was susceptible to being picked up and carried in storm water to the storm water inlets on the site and then out the outfalls.

While Leed owns street sweepers, Leed apparently does not use them much. Neither Mr. Cox nor Mr. Feher nor Mr. Harsh observed a street sweeper in use during any visit.[23] Mr. Harsh,

---

[23] Mr. Harsh documented in his inspection report that Mr. Quirin informed him that Leed owned a street sweeper. CX 2; Tr. 432-33(Harsh). Mr. Harsh testified, however, that he did not observe the sweeper in use during his inspection. Tr. 612 (Harsh). While Mr. Quirin testified that the sweeper was in use during Mr. Harsh's visit, Mr. Quirin's testimony lacks indicia of credibility and Mr. Harsh's testimony on this point should be credited. Mr. Harsh did not try to hide the ball. His inspection report indicated that Leed owned a street sweeper, and he forthrightly acknowledged being told the same. CX 2; Tr. 432 (Harsh). Mr. Harsh even took a photograph of a street sweeper parked (and not in use) at the facility. Mr. Quirin's testimony, however, was not nearly as forthright. Aside from his recollection that the street sweeper was in use, Mr. Quirin could recall virtually nothing else about Mr. Harsh's inspection, including whether he was even present with Mr. Harsh for certain portions of the inspection:

Q: And was that [Mr. Harsh's] site tour approximately 9:30 in the morning?

A: I don't remember.

Q: You don't recall whether it ended at approximately 11:00 in the morning?

A: It could have possibly.

Q: And were you with him when he toured this area of the site?

A: You know, I don't remember being with him when he toured that, but I could have been, but I just don't recall it.

Q: Okay, so you don't know whether this material that we see in the foreground of Exhibit 4F was actually removed or swept, do you?

A: Not at – not this particular coating of dust, no.

* * *

Q: And do you recall accompanying Mr. Harsh to this portion of your site?

A: I don't remember being up in this area with him, but I very well could have been.

who has inspected numerous construction sites, where sediment is the main pollutant of concern, stated he saw no evidence of regular or recent use of a street sweeper. *See, e.g.,* Tr. 432-33 (Harsh). Mr. Feher observed two employees sweeping, but not the street sweeper. Tr. 313-14 (Feher). Mr. Quirin was unable to produce for Mr. Harsh a set of housekeeping protocols. Tr. 429 (Harsh) ("Well, in many cases a facility may have other plans or procedures in place that aren't specifically identified as the SWPPP, but may embody the same type of controls. For instance, you may have a general housekeeping plan that's not called your SWPPP. But you may have other elements and other plans that would eventually be part of this. And if they're – I try and give credit if they're on site that there's something there. And in this case, there wasn't anything").

Mr. Quirin was unable to testify as to how often the street sweepers were used:

Q: When dust reaches the building like we see here in Exhibit 4F, do you go out and sweep it immediately?

A: No.

Q: When was this dust swept, the dust that we see here in Exhibit 4F?

A: It may have been the end of the day.

Q: Do you know if it was the end of the day?

A: No, I don't.

Tr. 1107-08 (Quirin)

Q: For the areas of the plant we were just addressing, you couldn't tell me when the material is removed, isn't that correct, because you don't have a predictable regular schedule of street sweeping?

Q: Did you leave Mr. Harsh unattended at any point in time?

A: That visit was a couple years ago. I really don't remember.

Tr. 1108-10 (Quirin).

A: Well, we street sweep when we can. Sometimes we do it during the day. Sometimes, you know, after work.

Tr. 1113 (Quirin)

THE JUDGE: Okay. Now, with reference to your sweeper activities, you mentioned that – did you say – my notes indicate that you indicated typically one time a day the sweeper or seepers, I need to be clear about that, were operating and then you said more if we can. Is that what you said, do you recall?

THE WITNESS: We run the sweepers as often as we can.

THE JUDGE: And would that mean that both sweepers run every day?

THE WITNESS: No, it would not.

THE JUDGE: Okay. Would it mean that at least one sweeper would run every day?

THE WITNESS: Yes.

THE JUDGE: Yes?

THE WITNESS: Yes.

THE JUDGE: On some days both sweepers run?

THE WITNESS: Some days.

THE JUDGE: Some days do both sweepers run more than once, if you know?

THE WITNESS: I don't know.

Tr. 1173-74 (Quirin).

Q: Mr. Quirin, do you know how long – if the sweeper is being run on any given day, do you know how long the sweeper is run?

A: No. It could be a half hour, an hour, two hours, three hours.

Q: And does it sweep the entire site every day?

A: No.

Q: Does it sweep at least the entire area that we've been talking about in the manufacturing portion of the facility in the areas around the cupola and the bag house –

A: Most days.

Q: -- or the bag house dust pile?

A: Most days, most days.

Tr. 1178-79 (Quirin).

Nor could Mr. Quirin, who, in addition to owning the Leed Foundry, is paid to oversee operations at Leed (*see, infra*), testify as to how long it takes to put a coat of dust on the roadway:

Q: Okay. And about how long does it take for you to build up a coating of dust in this area of the site similar to what you're seeing in Complainant's Exhibit 4F?

A: I can't answer that accurately. I haven't personally observed how long it takes to put some dust on the driveway as a result of our loading the cupola which starts about 6:00 am in the morning. Actually, earlier than that.

Q: So, you don't know how long it takes for dust to build up on your property?

A: Well, you're specifically pointing on the one section here.

Q: I am.

A: No, I don't.

Tr. 1107 (Quirin).

In addition, raw materials and baghouse waste were stored outdoors. For the entire relevant time period (March 1999 – January 2004), raw materials including scrap iron, limestone, and coke were stored uncovered and exposed to storm water at the apex of the adjacent roadway. The roadway, which sloped downhill in two directions from the raw materials storage area

provided a ready conduit to the inlets and outfalls for storm water that came in contact with the raw materials.

For part of the relevant period (March 1999 – March 2004), the baghouse dust also was stored outdoors uncovered, and thus readily exposed to storm water. In approximately 2001, following a DEP inspection, tarps were placed over the baghouse dust. Even then, rain events resulted in a "sea of dust" flowing down the roadway to the outfalls. In October 2002, jersey barriers were erected. However, it is apparent based on the high levels of lead and cadmium found in the foundry sand and dust on the ground that fugitive baghouse dust is escaping.[24]

In sum, the nature, circumstances, extent and gravity of Leed's failure to obtain and implement an NPDES permit for the discharge of storm water associated with construction activity were extremely serious. Leed's failure to obtain and implement an NPDES permit resulted in the uncontrolled and unauthorized discharge of storm water containing high levels of

---

[24] During the course of the hearing, the Presiding Officer requested that Complainant address what kind of controls should be in place: "[I]t sounds like EPA is suggesting that this is going to have to be, if you will, Tarp City, in that everything requires a tarp cover ...." Tr. 494-95. The short answer is that controls should be appropriate to the facility. While industrial facilities are not expected to be "like the aisles of a Target" (Tr. 495), facilities are expected to use best management practices to control the amount of pollutants that are exposed to precipitation and being carried off in storm water: "Operators of facilities covered under this general permit shall have developed a Preparedness, Prevention and Contingency (PPC) Plan ... in conjunction with 'Supplemental Guidance for the Development and Implementation of Preparedness, Prevention and Contingency (PPC) Plans under the National Pollutant Discharge Elimination System (NPDES) Storm Water Permitting Program.' The PPC Plan shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility. In addition, the PPC Plan shall describe the implementation of practices which are to be used to reduce the pollutants in storm water discharges at the facility ensuring compliance with the terms and conditions of this permit. The PPC Plan shall also include: (1) Storm Water Management Practices. The PPC Plan shall contain a narrative consideration of the appropriateness of traditional storm water management practices (practices other than those which control the source of pollutants) and the use of [best management practices (BMP's)] to control stormwater runoff and prevent storm water pollution. Based onan assessment of the potential of various sources at the plant to contribute pollutants to storm water discharges, the PPC Plan shall set forth measures determined to be reasonableand appropriate which shall be implemented and maintained." Stip. Ex. 2 at page EPA 0920. In the portion of the fact sheet for EPA's original Multi-Sector General Permit addressing the primary metals industry, for example, EPA suggests that numerous "potential best management practices" including indoor storage or storage in covered hoppers, and regularly scheduled sweeping. 60 Fed. Reg. at 50883. Leed certainly could store materials indoors, if necessary. Indeed, Mr. Quirin stated that Leed stores salt, sea coal, and other materials indoors. Tr. 1097, 1099, 1144 (Quirin). Similarly, Leed knows how to store materials in covered dumpsters, when it wants to. Tr. 1146-47 (Quirin). Leed could have stored less material for less time by disposing of the baghouse dust more frequently and sweeping more frequently.

toxic chemicals hundreds of times. The potential of these discharges to cause substantial environmental harm is significant and should be reflected in a substantial penalty above the economic benefit.

3. *Culpability and History of Violations*

Among the factors in considering a violator's culpability are the violator's experience with the relevant CWA permitting requirements, degree of control over the violation, the foreseeability of the events that constitute the violation, precautions taken to prevent the events that constitute the violation, knowledge of hazards associated with the violation, and good faith diligence in reporting violations and fixing the problems. *See In re C.W. Smith, Grady Smith & Smith's Lake Corp.*, Dkt. No. CWA-04-2001-1501 (ALJ Biro July 15, 2004).

Leed Foundry has full control over its processes, storage methods and other ways in which precipitation comes in contact with pollutants on the Leed facility and flows from the Leed facility to waters of the United States. Regardless of whether the materials on the Leed facility are exempt from RCRA regulation under the Bevill exemption, Leed's own sampling demonstrated that the facility was aware that materials at the facility that were exposed to precipitation contained very high levels of lead and cadmium. Indeed, the facility alerted the recipient of its baghouse waste that the material contained hazardous constituents (lead and cadmium). CX 26, page EPA 0308.

Leed has demonstrated no diligence in identifying and correcting problems related to contaminated storm water runoff. To the contrary, Leed only reluctantly has undertaken efforts to reduce discharges of highly toxic pollutants from its facility through storm water, and then only when directed to do so by a regulatory agency. Until directed to do so by DEP, the baghouse dust was stored openly and without tarps. *See* RX 9. When EPA's RCRA inspector

asked about whether Leed had tested the baghouse dust, he was ***not*** told that Leed had tested the material and it exceeded threshold levels for hazardous waste, or even that the waste was exempt from RCRA regulation. Instead, EPA's inspector was told that Leed had tested the baghouse dust and that it had never tested hazardous. Tr. 239-40 (Cox); *see also* Tr. 1006-07 (Quirin) (acknowledging that he had told Cox that the baghouse dust had tested "okay", meaning there were no metals in the baghouse dust exceeding the RCRA toxicity characteristic levels). It was only after EPA formally requested Leed's sampling results that EPA learned that Leed was fully aware that the baghouse dust exceeded threshold levels for identifying hazardous waste. Tr. 243-44 (Cox). In fact, at the hearing, Mr. Quirin admitted that he first became aware that the baghouse dust contained significant levels of lead and cadmium in the early 1990s. Tr. 1115 (Quirin).

It wasn't until after EPA had inspected the facility that Leed placed jersey barriers to contain the "sea of dust" that flowed from the piles of baghouse dust even after the tarp was placed. Tr. 258 & 261 (Cox).

Despite the fact that they were standing near the cupola and baghouse and the material as to which DEP inspector Mr. Feher inquired was gray and talcumy (like baghouse dust) and not coarse and tan, Mr. Quirin tried to persuade Mr. Feher that the gray, talcumy material on the ground was ordinary sand. Tr. 311-12 (Feher). Mr. Feher noted that the gray, talcumy characteristics of the material were obvious. Testing by EPA and DEP subsequently proved that the dust around the baghouse was in fact high in lead content and the particles were more similar to baghouse dust than ordinary sand.

Despite being informed by a consultant that an NPDES permit for the discharge of storm water associated with construction activity, Leed did not ensure that such a permit was obtained

or implemented. Tr. 999 (Quirin) ("The next time he came up to visit out us after we paved he says uh-uh, I think you need a storm water permit now. And I said, what's that? And he said, well it's a permit that, you know, you're going to be required to have. And I said, well, okay, you know, whatever. And I thought he went ahead with it, but – ***and I didn't pursue it"***) (emphasis added); *see also* Tr. 1149.[25] Even after Mr. Harsh's first and second site inspections, Leed did not seek an NPDES permit until after it was ordered to do so in an Administrative Compliance Order issued by EPA. *Compare* Stip. Ex. 4 (EPA Compliance Order dated December 22, 2003), *with* Stip. Ex. 1 (Leed NOI for NPDES permit coverage dated February 23, 2004).

While Mr. Quirin, under questioning from his counsel, made reference to training given to Leed's employees by the Pennsylvania Foundrymen's Association, Mr. Quirin conceded that the training has little or nothing to do with implementing storm water controls: "I don't know that they trained for dust management as opposed to working and how to protect yourself when working around that kind of material." Tr. 1154 (Quirin).

With respect to implementation of storm water controls, Leed's attitude has been to try to get away with as little as possible, and then only reluctantly. The best example of Leed's efforts to cut corners and do as little as possible is its failure to monitor its storm water discharges. Leed was well aware that its Standard Industrial Classification is 3321. *Additional Stipulations of Complainant and Respondent* No. 4. Pennsylvania's General NPDES Permit for the Discharge of Storm Water Associated with Construction Activity (Stip.Ex. 2, page EPA 0904), available to Leed even before it submitted its NOI, clearly states that: "**Primary Metal Industries.**

[25] Mr. Quirin's statements that he thought he had an NPDES permit should not be credited. Mr. Quirin was fully aware that he had neither signed a permit application nor paid any bills or fees associated with obtaining such a permit. Tr. 1149 (Quirin).

Facilities with storm water discharges from an industrial activity classified as Standard Industrial Classification (SIC) 33 (Primary Metal Industry) are required to monitor such storm water for parameters listed in Appendix B of this permit." (bold and underscore in original). Appendix B (which applies specifically to the Primary Metals Industry, SIC 33) requires biannual monitoring for a range of pollutants, including lead and cadmium – two pollutants that Leed was well aware were present at its facility. Stip. Ex. 2, page EPA 0925. When DEP issued a permit, however, DEP apparently inadvertently directed Leed in the cover sheet accompanying the permit to comply with Appendix J (which applies to "additional facilities" and not to primary metals facilities and requires either monitoring or inspections), not Appendix B. Stip. Ex. 2, page EPA0898. Leed apparently recognized the mistake, because Leed's consultant telephoned DEP to confirm that Leed need only follow the instruction on the cover sheet. Tr. 834-35 (Epps). Tellingly, Leed's consultant did ***not*** alert DEP to the fact that Leed was a primary metals facility and had an SIC of 33 or that Appendix B should apply. Tr. 838 (Epps). Instead, despite representations in the PPC that, "Leed Foundry also monitors the facility's storm water run-off during precipitation events. Semi-annual sampling events and site inspections are conducted in accordance with the requirements of Pennsylvania's General Industrial Stormwater Permit under the National Pollutant Discharge Elimination System (NPDES)" Stip. Ex. 3, page EPA 0171, Leed has not monitored ***any*** storm water run-off at the Site, apparently in reliance on DEP's mistaken reference to Appendix J. Tr. 997-98 (Quirin). Leed has not done any monitoring, even though its own consultant concedes that the PPC's representation that Leed monitors during precipitation events is unqualified by any reference to the permit. Tr. 820-21 (Epps).

While Leed has no history of CWA violations, it has a history of violations related to exposure of contaminants to the environment and the potential of release of fugitive pollutants

from the Leed facility, either airborne or waterborne. RX 9. Mr. Harsh testified that he considered the history of violations related to fugitive dust and generally poor housekeeping at the facility as relevant because it was evidence that the problems at the facility were ongoing.

4. Ability to Pay

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

II. RCRA VIOLATIONS – COUNTS I-XIII

A. Procedural History

On or about August 5, 2005 Respondent filed a motion requesting accelerated decision. Its motion claimed that its waste was exempt from RCRA regulation under the so-called "Bevill Amendment." That provision of the Act temporarily prohibited EPA from regulating certain

---

[31] There is also a related entity which, presumably, has assets that might be used to pay this penalty. In addition to Leed Foundry, Mr. Quirin is also owner of E.A. Quirin Machine Shop ("Quirin Machine"). Tr. 984. Quirin Machine is located on the same property. Tr. 1126-27, 1128-29, 1213-14. It provides services, such as grinding and painting to Leed. Tr. at 1214. The two companies share certain overhead costs. This is accomplished by having the service provider, such as a health insurance provider, bill Quirin Machine. Quirin Machine then passes a portion of that cost along to Respondent. Tr. at 1214-16. It is company "management," i.e., Mr. Quirin, who decides which company pays how much. 1216-17. In circumstances where a related entity, which is controlled entirely by the same person that controls the Respondent, and which has financial dealings with Respondent that appear to benefit Respondent, it may be appropriate to consider the related entity's assets as well as Respondents. In re: New Waterbury, Ltd., 615377 (Oct. 20, 1994) (where related company exists which is under control of owner of Respondent, that entity's finances may be relevant to ability to pay); In re: Dearborn Refining Co., 2003 WL 22078598 (Aug. 15, 2003) (where same person owns and controls both companies, financial condition of related entity, financial information of related entity may be relevant to ability to pay), aff'd 2004 WL 3214475 (EAB Sept. 10, 2004). Here, Complainant sought information in its August 5, 2005 information requests. That information was not provided, nor did the Presiding Officer order its provision upon motion by Complainant filed in September of 2005. See also, tr. at 1246 (Dr. Meyer indicating she would have used information regarding Quirin Machine in her assessment of Respondent's ability to pay.) Where Respondent refuses to provide information pertaining to the related entity, the consequences of this "information shortfall" should be born by Respondent.

wastes under RCRA Subtitle C until such time as EPA studied those wastes and determined whether or not subtitle C regulation was appropriate. Respondent claimed that the waste at issue in the instant case, i.e., baghouse dust waste from its metal melting operation, fell within the first of the three statutorily exempted categories of wastes, i.e.,

> (i) Fly ash waste, bottom ash waste, slag waste and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

RCRA § 3001(b)(3)(A)(i), 42 U.S.C. § 6921(b)(3)(A)(i). Respondent further argued that since EPA had not studied or made a determination with respect to baghouse dust waste from metal melting operations, such wastes were Subtitle C exempt.

Virtually concurrently, on August 5, 2005, EPA filed a motion to strike Respondent's Bevill defense[32]. In that motion EPA agreed that the Bevill Amendment provided a temporary exemption for the statutorily enumerated category of wastes, but asserted that baghouse dust waste from Respondent's metal manufacturing process did not fall within that category. EPA noted that during the 1980s and 1990s EPA had fulfilled its statutory mandate by identifying, studying and making a regulatory determination for *all* wastes which potentially fell within RCRA section 3001(b)(3)(A)(i).[33] Baghouse dust from metal manufacturing processes was not one of the wastes identified or studied. Since, under this comprehensive EPA regulatory determination process, Respondent's wastes had not been identified as section 3001(b)(3)(A)(i) wastes, Complainant argued, they had never been within the scope of subpart 1 of the Bevill exemption and thus were subject to subtitle C regulation.

---

[32]Motion to Strike Respondent's Defense that its Waste Falls Within the "Bevill Exemption" to the Resource Conservation and Recovery Act ("EPA Motion to Strike Bevill Defense").

[33]*Report to Congress: Wastes from the Combustion of Coal by Electric Utility Power Plants*, EPA 1988; 58 F.R. 42466 (August 9, 1993); *Report to Congress on Wastes from the Combustion of Fossil Fuels,* EPA, March 1999 (including *Volume 2 - Methods, Findings, and Recommendations)* ("1999 Report to Congress").

The Presiding Officer issued a Preliminary Order on Motions on October 12, 2005. In it he was highly critical of Complainant's position and was supportive of Respondent's position. He did not, however, grant accelerated decision in favor of Respondent since the Presiding Officer opined that there was insufficient factual and expert testimony in the record for him to determine that the waste had been generated primarily from the combustion of coal or other fossil fuels.

A hearing of this matter was held from October 31 through November 7, 2005.

- B. Factual Background[34]

Respondent owns and operates a grey iron foundry in St. Clair, Pennsylvania.

The primary manufacturing process at the facility occurs in a large cylindrical vessel called a cupola. Tr. 94. Scrap metal, coke and limestone are all placed, unsegregated, into the cupola, tr. 94, the coke is ignited, the metals melt and as they do they drip downward through and around the coke. Tr. 95-96.[35] The molten metal is drawn off from the bottom of the cupola.

The coke, in addition to generating the heat required to melt the scrap, is part of the manufacturing process. For example, the melting metal interacts with the coke, absorbing some of it. Tr. 97. In addition, the coke is necessary to create a reducing environment so as to inhibit oxidation of the iron, otherwise the product would be iron-oxide instead of the desired iron. Tr. at 97. Moreover, the coke affects the physical and chemical properties of the final product – too

[34]We will also prepare a separate document for proposed findings of fact and those will be presented in numbered paragraphs.

[35]At an operation like Leed Foundry, the material charged into the cupola to be processed is not simply "iron." It is scrap and so contains a variety of other metals such as lead, cadmium, molybdenum, manganese and chromium. Tr. 94-95.

much coke in the cupola can impart unwanted characteristics to the product. Tr. 98 (for example, product may end up with too much sulfur in it).

The cupola process necessarily generates air borne waste particles. These are transported through ductwork to an air pollution control device called a baghouse. Tr. 99. The particles deposit themselves on the inside of the bags in the baghouse. From time to time, the particles are loosened from bags in the baghouse either by impact from pulse of air or by mechanical shaking, and they fall down into hoppers affixed to the underside of the baghouse. Tr. 102-04, C.Ex. 6I. The bottoms of large hoppers affixed to the baghouse are periodically opened allowing the particles to drop into bins (sometimes called "hoppers" or "tilt buckets")[36] below. Tr. 104-05, C.Ex 5J.

C. Statutory and Regulatory Background

In 1976 Congress enacted RCRA. Subtitle C of that Act, 42 U.S.C. §§ 6921-31, provided for a "cradle to grave" system regulating the generation, storage, treatment and disposal of hazardous wastes. Pub. L. No. 94-480, 90 Stat. 2795.

In 1980 RCRA was amended, *inter alia*, to temporarily exempt certain categories of wastes from coverage under the Subtitle C requirements. This new exemption, called the "Bevill Amendment" after Congressman Bevill of Alabama, applied, inter alia, to

> (i) Fly ash waste, bottom ash waste, slag waste and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

RCRA § 3001(b)(3)(A)(i), 42 U.S.C. § 6921(b)(3)(A)(i).

The exemption was temporary, extending until EPA had completed a congressionally mandated study of each such waste. RCRA § 8002(n), 42 U.S.C. § 6982(n). The amendment

[36]Tr. 323, C.Ex. 6J ("hoppers"); tr 1080-81, C.Ex. 6J ("tilt buckets").

In 1976 Congress enacted RCRA. Subtitle C of that Act, 42 U.S.C. §§ 6921-31, provided for a "cradle to grave" system regulating the generation, storage, treatment and disposal of hazardous wastes. Pub. L. No. 94-480, 90 Stat. 2795.

In 1980 RCRA was amended, *inter alia*, to temporarily exempt certain categories of wastes from coverage under the Subtitle C requirements. This new exemption, called the "Bevill Amendment" after Congressman Bevill of Alabama, applied, inter alia, to

> (i) Fly ash waste, bottom ash waste, slag waste and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

RCRA § 3001(b)(3)(A)(i), 42 U.S.C. § 6921(b)(3)(A)(i).

The exemption was temporary, extending until EPA had completed a congressionally mandated study of each such waste. RCRA § 8002(n), 42 U.S.C. § 6982(n). The amendment further required that EPA prepare a report of its findings for each category and present that report to Congress within certain specified time periods. Id. Following that submission, and after taking public comment, EPA was required to either determine to promulgate Subtitle C regulations for each category of materials, or determine that such regulations were not necessary. RCRA 3001(b)(3)(C), 42 U.S.C. § 6921(b)(3)(C).

With respect to the section 3001(b)(3)(A)(i) wastes, EPA decided to fulfill its statutory charge using a two step process. First, EPA studied the industries which it believed produced the great majority of the section 3001(b)(3)(A)(i) wastes. That study resulted in a Report to Congress regarding four high-volume fossil fuel combustion ("FFC") wastes - fly ash, bottom ash, boiler slag and flue gas emission control waste - from combustion of coal at electric utility power plants, 58 F.R. 42466, 42467 (August 9, 1993), and a regulatory determination ("1993 Determination") for these wastes, id., in which it concluded "that regulation under Subtitle C of RCRA is inappropriate" for these FFC wastes. Id. at 42,466.

Second, in the Agency studied and reported to Congress on all remaining wastes for which RCRA sections 3001(b)(3)(A)(i) and 8002(n) mandated an EPA study and determination. 1999 Report to Congress. Specifically this 1999 Report to Congress stated that it addressed:

(1) Utility coal combustion wastes "mixed with, codisposed, cotreated or otherwise comanaged with other wastes generated in conjunction with the combustion of coal or other fossil fuels." EPA termed these "Comanaged Utility Coal Combustion Wastes."

and

(2) "Any other wastes subject to Section8002(n) of RCRA, except fly ash, bottom ash, boiler slag, and flue gas emission wastes from coal combustion by electric utilities."[37]

Thereafter, on May 22, 2000, EPA published its Final Regulatory Determination on Wastes from the Combustion of Fossil Fuels. 65 F.R. 32,214. The Agency determined not to regulate, under Subtitle C of RCRA, any of these remaining FFC wastes. Baghouse dust from metal manufacturing processes was not one of the wastes identified, studied, or for which the Agency determined the exemption to continue to apply.

D. Argument

There is no dispute that Respondent's baghouse dust is a solid waste and exhibits characteristics of a RCRA hazardous waste. Answer at paragraph 17 (solid waste); Stipulation dated October 19, 2005 (TCLP results of baghouse dust); 40 C.F.R. § 261.24(a) (toxic characteristic level for lead is 5 mg/l, toxic characteristic level for cadmium is 1 mg/l). However, Respondent has claimed that the material is not a RCRA hazardous waste because it is "Bevill exempt." As a result,

---

[37] EPA explained that this second group included:

- Wastes from the combustion of mixtures of coal and other fuels ("coburning") by utilities
- Wastes from the combustion of coal by non-utilities
- Wastes from fluidized bed combustion of fossil fuels (by utilities and non-utilities)
- Wastes from the combustion of oil (by utilities and non-utilities)
- Wastes from the combustion of natural gas (by utilities and non-utilities)

Id. at Section 1.2 Purpose and Scope of Report, page 1-1 - 1-2.

the Presiding Officer ordered that the evidence presented at hearing go to the issue of whether this waste is "generated primarily from the combustion of coal or other fossil fuel."

1. Leed Did Not Meet Its Burden of Showing that the Waste Was Generated Primarily From the Combustion of Coal or Other Fossil Fuels

To the extent that the Respondent's air borne cupola waste could even potentially be found to fall within the ambit of the first section of the Bevill exemption, i.e., RCRA section 3001(b)(3)(A)(i),[38] it cannot claim that exemption where, as here, Respondent did not meet its burden of demonstrating that its waste was generated primarily from the combustion of fossil fuels.[39]

Respondent attempted to show that its waste derived primarily from coke, a fossil fuel, by attempting to quantify how much of the cupola's air borne waste was derived from the coke which had been charged into the cupola as opposed to how much came from the scrap metals which had also been charged into the cupola. Respondent's witness on this point was Mr. Francis Bauer. Mr. Bauer is an engineer (although he has virtually no experience with cupola's such as Respondent's, tr. 40). Respondent, who bears the burden of proving this proposition, presented only conclusory statements without demonstrating any basis for them. Mr. Bauer did state that his belief that more than 90% of the waste from the cupola came from the coke, Tr. 36, but he presented no data and no calculations in support of his theory. He merely provided conclusory statements. See, generally, Tr. 19 - 38.

---

[38]Complainant continues to assert that Respondent's waste does not even potentially fall within the ambit of RCRA section 3001(b)(3)(A)(i) and here reasserts all arguments it has made in prior filings in this case.

[39]The Presiding Officer announced in the teleconference he called on October 5, 2005 that the burden of proof regarding applicability of this statutory exemption lay with Respondent. See also United States v. Columbus Country Club, 915 F.2d 877, 882 (3d Cir. 1990) cert. denied, 501 U.S. 1205 (1991) (burden of proof lies with entity claiming applicability of statutory exemption); United States v. Eastern of Neww Jersey, Inc., 770 F.Supp. 964, 981 (citing United States v. First City Nat'l Bank, 386 U.S. 361, 366 (1967) (burden of proving exemption lies with entity claiming the exemption).

Moreover, Mr. Bauer's opinion, on its face, is refuted by the quantifiable evidence in this case. Bauer opined that more than 90% of the waste from the cupola came from the coke rather than the metals. Tr. 36. But, this is difficult to reconcile with the fact that the waste consisted of up to 14.4% lead . Tr. 391-97, C.Ex. 33G (EPA technical contractor responsible for sampling of waste pile found 144000 parts per million lead), tr. 393-94 (144,000 mg/kg amounts to 14.4% since conversion of mg/kg to percent is accomplished by moving decimal point four places to left). In fact, the average of all samples of the waste pile showed it to contain 11.23% of lead alone – not even accounting for other metals. C.Ex. 33 (average of samples shown in C.Ex. A-G is 112,300, which amounts to 11.23%). See also Tr. 42-43.[40]

It is not surprising that Mr. Bauer's opinion about Leed Foundry's waste composition was flawed, Mr. Bauer appears to have almost no experience with quantifying or characterizing air borne waste products produced by metal manufacturing processes. – Although Mr. Bauer was put on by Leed to provide expert testimony on cupola operation and its resultant waste stream, he admitted that he had little or no experience with cupolas. Tr. 40.[41]

Respondent also put forth Dr. Barry Scheetz as an expert in "fly ash" composition and chemistry. Tr. 49. Dr. Scheetz had undertaken a mineralogical assessment of Leed's waste -- not a quantification of how much resulted from combustion of coke. Tr. 55-59. As a result, he admitted that he could not state, with a reasonable degree of scientific certainty, how much of Leed's waste derived from the combustion of fossil fuel. Tr. 59. When pressured on the stand to come up with an

[40] It should be noted that even Leed's expert, Bauer, admitted that the metals in the waste came, overwhelmingly, from the metals charged into the cupola. Tr. 42-43.

[41] When asked how many cupolas he had worked with, he did not identify any. The closest he could come were two facilities that he said were similar. He then went on to talk about a fluidized bed combustion - a different system entirely.

opinion, he gave two, inconsistent estimates. First he stated his belief that well over 90% came from the coke. Tr. 61. He then changed his opinion to over 75%. Tr. 62.

But, the very foundation for Dr. Scheetz's opinion was fundamentally flawed. In arriving at his opinion, Scheetz stated that he reviewed and considered the chemical analyses of lead and cadmium that had been found in the waste. Tr. 61, see also, tr. 374-76, 380-81, 386 (samples of baghouse dust pile taken, chain of custody recorded and laboratory results received), C.Ex. 33 (chemical analyses of Leed's waste). In fact, he stated that he based his opinion on his belief that those chemical analyses showed the waste to contain only a couple of percent lead and cadmium. Tr. 61. But, this belief was entirely wrong and lead to an erroneous conclusion. The reality was that Leed's waste contained "shockingly" high levels of lead.[42] As the sampling by EPA's contractor showed, the waste contained up to 14.4 percent lead[43] – not a mere "couple of percent" as was required for Dr. Scheetz's conclusion.[44]

Thus, assuming arguendo, that determining the composition of the dust pile is a relevant inquiry, neither of Respondent's witnesses put on credible convincing evidence proving how much of Leed's waste derived from the coke fired in the cupola and how much derived from the scrap metals.[45]

---

[42] As Pennsylvania DEP inspector Feher testified, the amount of lead found in the sample he took, i.e., 976 mg/l, was so high that he was shocked and called the lab to verify the results. Tr. 298-99.

[43] Tr. 391-97 (testimony of EPA technical contractor, Fellinger) and C.Ex. 33G, bates No. 0347 (sample of baghouse dust pile revealing 144,000 parts per million lead); tr. 393-34 (144,000 amounts to 14.4%, since converting from mg/kg to percentage is accomplished by moving decimal point four places to the left).

[44] Dr. Scheetz labored under the mistaken belief that 150,000 ppm of lead, when converted to a percentage, equalled 1.5%. Tr. 60. In fact, by moving the decimal point four places to the left, tr. 393-34, it can be seen that 150,000 ppm corresponds to a percentage of 15%.

[45] On the other hand, Complainant put on credible and convincing evidence that the waste was generated not from the combustion of fossil fuels, but rather as part of a manufacturing operation. For example, Mr. Wojciechowski, who is the only witness with expertise in this area, see, *infra*, described that during the heating of the cupola the coke (1) interacts with and becomes incorporated into the melting metals; (2) acts as a reducing agent in the chemical process that occurs

2. *Even if Leed's Waste Was Generated Primarily from the Combustion of Coal or Other Fossil Fuels, It Was Not Fly Ash.*

Essential to Respondent's argument that its waste is exempt as fly ash generated primarily from the combustion of fossil fuel is the premise that its waste is "fly ash." But, just because Respondent has repeatedly refered to its waste "fly ash"does not transform it into that substance. The only credible evidence in this case as to the classification and identification of Respondent's air borne cupola wastes came from EPA's regional iron and steel expert, Mr. Wojciechowski, who was clear that this waste is not "fly ash," but rather, a material known as "baghouse dust."

The only witness with training and experience on this particular topic testified that this waste does not fall within the accepted definition of "fly ash." Based on his decades of experience and his particular expertise with this waste, Mr. Wojciechowski identified the waste at issue here as a substance known as and referred to as "baghouse dust." Tr. 105. He was quite clear that this waste is not the material known as "fly ash." Mr. Wojciechowski acknowledged that there is a waste material known as "fly ash" and that it is produced from certain combustion processes. But, as Mr. Wojciechowski explained, "fly ash" is produced when fossil fuels are combusted in a boiler, i.e., a unit segregated from whatever manufacturing process, if there is any, that may be occurring. Tr. 106-07.[46] In contrast when fossil fuels, such as coke or coal, are combined with other materials as

---

during the manufacture; and (3) affects the physical and chemical properties of the final product. Tr. 97-98. As such, the coke is an integral part of the manufacturing operation.

[46] This is consistent with the historical use of that term as it relates to the Bevill Amendment, specifically the Reports to Congress and Determinations. The 1999 Report to Congress, which addressed all potentially Bevill exempt Fossil Fuel Combustion wastes (except the utility coal wastes, which had been the subject of the 1993 Report to Congress), repeatedly defines "fly ash" as the particulate matter produced from combustion of fossil fuel in a boiler. See, e.g., 1993 Report to Congress at 3-1 ("**Fly ash.** The uncombusted material carried out of the *boiler* along with the flue gases.") emphasis added; id. at 4-3 ("**Fly ash.** Uncombusted material carried out of the *boiler* along with flue gases.") emphasis added; id. at 5-1 ("**Fly ash**" is ash removed from the entrained air stream of a fluidized bed combustors, which are a type of boiler technology); id. at 6-3 ("**Fly ash.** The fine particles entrained in the fule gas leaving the *boiler*.") emphasis added. Moreover, there is only one possible subcategory of Bevill exempt fossil fuel wastes to which Respondent's waste could even possibly belong, i.e., the non-utility coal combustion waste subcategory. See, 1993 Report to Congress and 1999 Report to Congress (identifying various subcategories of Bevill Amendment fossil fuel wastes). But, there again, the material which is exempt is "fly ash" and, as defined by the 1999 Report to Congress, is generated by *boilers*. Report to Congress at 4-1.

part of a manufacturing process, the air borne waste produced is a substance termed "particulate matter" or "dust." Tr. 105.

Other information specific to this type of waste corroborates Mr. Wojciechowski's statement. Of all the equipment at Respondent's facility, Respondent purchased one particular device to address its cupola generated air borne wastes: a baghouse. The manufacturer of this baghouse, and of other devices designed to handle wastes such as this, is the Wheelabrator Company. Tr. 106-07. It is important to note that this company which designs and builds the equipment that enable manufactures, such as Leed, to comply with air pollution control laws, does not design or build equipment to address "fly ash." Rather, in its public materials, Wheelabrator specifically identifies its equipment as facilities that trap and collect "dust." In sum, the only equipment at Leed's plant which addresses the waste at issue here specifically identifies this waste material as "dust." Tr. 106-07. Thus, industry usage of the term supports Mr. Wojciechowski's testimony.[47]

The only expert testimony presented by Respondent on this issue was irrelevant. Respondent offered Dr. Barry Scheetz as having extensive experience in the composition and chemistry of "fly ash." Since "fly ash," is air borne particulate waste resulting from fossil fuel combustion in a chamber which keeps the fossil fuel segregated from any other materials, Complainant acknowledges that Dr. Scheetz has significant experience with "fly ash." However, as testimony

---

[47] The only other information adduced at the hearing regarding the proper identification of air borne particulate wastes generated by cupola manufacturing processes (as opposed to energy generating boiler processes) supports Mr. Wojciechowski's testimony that those wastes are called baghouse dusts and not fly ash. First, Dr. Scheetz testified that with respect to the single study in which he had participated that included both air born particulates from energy generating boilers and a small number of samples of air born cupola manufacturing wastes, the particulates from the boilers had been identified and referred to as "fly ash" and the cupola manufacturing particulates had been identified and referred to as "baghouse dust." Tr. 71 (material in study referenced ot tr 52, called "dust"); see also tr. 52 (when testifying regarding wastes from foundries Scheetz referred to the material as "dust"). Second, the Pennsylvania DEP had inspected the facility in 2001 and discovered that the piles of waste from the baghouse were uncovered. The inspection report does not refer to that waste material as "fly ash." Rather, it was identified as "dust." R.Ex. 9, page 2, paragraph 4.

from Dr. Scheetz himself shows, he has virtually no experience with the wastes at issue here: air borne wastes generated from metal manufacturing operations such as Leed Foundry's. Thus, his experience and expertise, which is limited to "fly ash," is not on point.

Dr. Scheetz was quite candid in admitting that his experience and knowledge of wastes is with those wastes generated from the combustion of fossil fuel in the realm of electric power generating plants. Tr. 50-51 (experience with pulverized coal power plans and fluidized bed combusters, both of which are power generators.)[48] At electric power generation facilities, the fossil fuel is burned in a boiler of one type or another, and thus it is not in contact with any production materials.[49] As a result, that waste, termed "fly ash," has been held out as not posing a significant environmental risk. Tr. 70.

Metal manufacturing facilities, such as Leed's, employ entirely different processes, use entirely different materials and result in an entirely different waste. In cupola metal production facilities, the fossil fuel (in this case, coke) is not burned in a segregated unit. In addition, the fossil fuel is mixed with the process materials such as scrap metals. Moreover, the waste it generates is laden with metals such as lead. See C.Ex. 33, Stipulation dated October 19, 2005.

Dr. Scheetz, however, is not in a position to opine on such processes and wastes. Dr. Scheetz was hard pressed to identify even one a single instance in which he as worked with air borne wastes from cupola manufacturing. Tr. 53 (other than the one foundry project for which, it turned out, Dr. Scheetz could not identify how many cupola air particulate waste samples, if any, he had reviewed,

---

[48] Dr. Sheetz did intimate that he had experience with wastes from 30 to 35 foundries (although he didn't indicate which, if any of those foundries used cupola technology). Tr. 50-53. As it turned out, the wastes Dr. Scheetz studied from the 30 to 35 foundries included a range of materials, and he could not identify how many, if any, samples of cupola wastes he had studied. Tr. 71-72.

[49] The processes with which Dr. Scheetz is, i.e., pulverized coal power plants and fluidized bed conductors, are electric generating facilities. Tr. 50-51. Such facilities employ boilers. See, e.g. tr. 40 (fluidized beds are boilers), 1999 Report to Congress, ibid. (power plants employ boilers). Whereas Respondent's cupola is a furnace. Tr. 987. At coal power plants and fluidized bed facilities the fossil fuel is never mixed with and burned in the presence of process materials. Tr. 52. There are no "process materials" – nothing is manufactured.

Scheetz had no experience with cupola generated air borne particulates prior to being retained for purposes of testimony in this case).

Alarmingly, Dr. Scheetz's total lack of familiarity with the relevant process and waste did not stop him from trying to transfer nomenclature ("fly ash") from the area in which he does have expertise (energy generation employing boilers) to waste resulting from a different process (manufacturing operations employing cupolas), with which he lacks significant experience. Application of the term "fly ash" to the waste at issue here entirely new for Dr. Scheetz. Prior to being paid by Respondent to testify in this case that such material constituted "fly ash," he had never included it within the definition of that term before. In fact, Dr. Scheetz has published extensively on the subject of "fly ash," and in the course of his professional career has often identified and defined what is meant by that term "fly ash." See tr. 64 (Canadian article), tr. 67 (publication from Colorado State conference). However, at no point in all his years addressing fly ash did he ever define the substance "fly ash" to include particulates given off by cupola operations – prior, that is, to the time he was hired by Respondent to so state. Tr. 73; see also 67-69, 70-71, (scientific article authored by Scheetz identifying "fly ash" as wastes produced by electric utilities and electric cogeneration plants , but not indicating that "fly ash" was or could be produced by cupola manufacturing processes). Moreover, Dr. Scheetz never included manufacturing facilities, such as Leed Foundry, as potential sources of "fly ash" until Leed hired him to so state. Tr. 69, 73. Importantly, the only time Dr. Scheetz even claims to have dealt with air borne particulate wastes from foundries, he admits that such wastes were not termed "fly ash," but rather were called "baghouse dusts." Tr. 71.

Without the expertise relevant to the particular process at issue, Dr. Scheetz failed to assign the proper identifier to this waste.[50]

Complainant's expert, Mr. Wojciechowski, on the other hand, has the training and expertise that is on point in this case. Mr. Wojciechowski had decades of experience with metal manufacturing facilities.[51] He also holds a title of particular distinction. In EPA's Region 5, which has more metal manufacturing facilities than any other region in the country, Mr. Wojciechowski has the distinction of being the Regional Iron and Steel Expert. Tr. 92-93.[52] Perhaps more importantly, the precise area of his expertise with such facilities is the generation, capture and nature of the particles which result from the metal manufacturing process, then rise up a facility's flue or ducts and are captured by air pollution control devices such as baghouses or electrostatic precipitators. Tr. 85-86 (training focussed on airborne pollutants); tr. 87-89, 90-92 (sector focus was on iron and steel manufacturing and included foundries with cupolas); tr. 89-91 (media focus was on emissions, including air pollution control devices such as baghouses).

Mr. Wojciechowski testified that the waste at issue in this case is particulate in nature; it is generated in the cupola; it then moves through a series of ducts and is eventually captured in

---

[50] Dr. Scheetz was the only witness presented by Respondent to address the issue of "fly ash." Mr. Bauer's testimony did not address whether or not the cupola's air borne wastes were fly ash, nor could he given his lack of experience with nomenclature, or in fact any aspect, of air borne cupola wastes. Mr. Bauer admitted that while he has experience within the realm of fossil fuel combustion (Mr. Bauer referenced power generation facilities, in particular, tr. 20) he has never worked on a metal manufacturing cupola like Leed's. Tr. 39. (It should be noted that when discussing the types of facilities he had worked with that were most similar to the Leed facility, he identified fluidized bed boilers, tr. 40, - which are segregated combustion units, tr. 52, not units which mix fossil fuels with process materials and give off a waste which can contain elements of both.) Mr. Bauer's experience has focussed on processes that generate "fly ash," i.e., segregated fossil fuel combustion rather than dust generating facilities. Moreover, Mr. Bauer admitted that for purposes of this case he accepted Respondent's attorney's direction that the waste was to be referred to as "fly ash" or "fly ash waste." Tr. 37.

[51] Tr. 85-87 (Wojciechowski inspected steel related operations while with Cooke County in mid-1970s); tr. 87- 92 (Wojciechowski inspected iron and steel making facilities, including foundries, for EPA since late 1970s).

[52] Mr. Wojciechowski now trains others in the area of air borne pollutants, tr. 85-86, and has participated in several speaking engagements regarding air protection, tr. 86.

Respondent's bagouse. Tr. 98-99, 102-104, C.Ex. 6I. He testified that this is a type of waste and waste generation process with which he is very familiar. 53 In fact, Mr. Wojciechowski is the only witness who testified in this case to possess sufficient knowledge and expertise regarding this particular waste material to identify and discuss it. Mr. Wojciechowski has had decades of experience in the field of air borne wastes generated from metals production, including air borne wastes from cupolas such as Respondent's. Tr. 87-92, 98-99.

In conclusion, the overwhelming evidence presented at the hearing of this matter was that the specific waste at issue here is a material known as "particulate matter" or "baghouse dust" and that even if it were "fly ash," Respondent did not meet its burden of showing that the waste was generated primarily from the coke, as opposed to the metals or other materials used in or generated as by-products from, Respondent's cupola production process.

Accordingly, with respect to Counts I-XIII, Complainant respectfully requests that the Presiding Officer strike Respondent's affirmative defense and schedule a hearing as to Counts I – XIII of the Complaint.

Respectfully submitted,

Date: 1/30/06

Kerry Nelson
Senior Assistant Regional Counsel
U.S. EPA
Region III

/s/ KN

Stefania D. Shamet
Senior Assistant Regional Counsel
U.S. EPA
Region III

53 Tr. at 98-99 (Respondent's cupola is of the same type as the cupolas with which Mr. Wojciechowski is experienced).