UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

BEFORE THE ADMINISTRATOR

In the Matter of:	)	
	)	
Chem-Solv, Inc., formerly trading as	)	
Chemicals and Solvents, Inc.	)	
	)	
and	)	Docket No. RCRA-03-2011-0068
	)	
Austin Holdings-VA, L.L.C.	)	
	)	
Respondents.	)	

COMPLAINANT'S INITIAL POST-HEARING BRIEF

INTRODUCTION

Pursuant to 40 C.F.R. § 22.26 of the *Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation/Termination or Suspension of Permits* (hereinafter, "*Consolidated Rules*") and the schedule set forth in this Court's June 12, 2012 Order on Motion to Modify Briefing Schedule, Complainant, the Division Director of the Land and Chemicals Division, United States Environmental Protection Agency, Region III ("EPA" or the "Agency"), respectfully submits its Initial Post-Hearing Brief in this enforcement proceeding following the Administrative Hearing held in Roanoke, Virginia on March 20, 2012 through March 24, 2012, as conducted under Section 3008(a) of the Resource Conservation and Recovery Act and pursuant to the *Consolidated Rules.*

I. APPLICABLE STATUTORY AND REGULATORY REQUIREMENTS

A. RCRA Subtitle C

Congress enacted the Resource Conservation and Recovery Act of 1976, 42 U.S.C. § 6928(a), as amended by the Hazardous and Solid Waste Amendments of 1984 (hereinafter, "RCRA"), to address the serious environmental and health dangers arising from waste generation, management, and disposal. Congress was particularly concerned with the management and disposal of "hazardous wastes," for which it mandated comprehensive "cradle-to-grave" regulation in RCRA Subtitle C, 42 U.S.C. §§ 6921-6939e (hereinafter "Subtitle C"). *See, e.g., City of Chicago v. Environmental Def. Fund*, 51 1 U.S. 328, 331 (1994)*; American Chem. Council v. EPA*, 337 F.3d 1060, 1062 (D.C. Cir. 2003). Congress broadly defined "hazardous waste" as a "solid waste" which "may . . . pose a substantial present or potential hazard to human health or the environment when improperly . . . managed." 42 U.S.C. § 6903(5). "Solid waste" includes all "discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial [or] commercial . . .operations." 42 U.S.C. § 6903(27). *See also* 40 C.F.R. § 261.2 (regulatory definition of "solid waste").

Congress delegated to EPA the task of developing criteria for identifying the characteristics of hazardous waste and the listing of hazardous wastes. 42 U.S.C. § 6921(a). EPA has promulgated lists identifying specific hazardous waste ("listed wastes"). 40 C.F.R. Part 261, Subpart D. EPA also has identified four characteristics of hazardous wastes: ignitability, corrosivity, reactivity and toxicity. 40 C.F.R. §§ 261.20 - 261.24. Any solid waste exhibiting one or more of these characteristics is automatically deemed a hazardous waste subject to regulation under Subtitle C of RCRA, even if it is not a listed waste. *See American Petroleum Inst. v. EPA*, 906 F.2d 729,733 (D.C. Cir. 1990); *Hazardous Waste Treatment*

Council v. EPA, 861 F.2d 270, 271 (D.C. Cir. 1988). Hazardous wastes are subject to stringent RCRA Subtitle C standards that govern their generation, transportation, treatment, storage and disposal. *See* 42 U.S.C. §§ 6921-25; 40 C.F.R. Part 261; *Chemical Waste Mgmt., Inc. v. EPA*, 976 F.2d 2, 8 (D.C. Cir. 1992). Some of these management standards are set forth at 40 C.F.R. Parts 262 and 264, including the following Subparts that have particular relevance to the issues raised in this action: Subpart G, which sets forth RCRA hazardous waste management facility closure and post-closure care requirements; Subpart H, which sets forth RCRA hazardous waste management facility financial requirements; Subpart J, which establishes requirements for tank systems; and Subpart CC, which establishes standards to control air emissions from tanks that handle hazardous wastes.

B. Federal and State "Authorized" Hazardous Waste Programs

RCRA allows a state to apply for EPA authorization of its own state hazardous waste program. 42 U.S.C. § 6926(b) (which consists of state statutes or regulations). EPA reviews the state program to ensure that its requirements are at least as stringent as the federal program. To be authorized, a state hazardous waste program must be, among other things: equivalent to the federal Subtitle C program established by EPA; consistent with the federal and state programs applicable in other States; and it must provide for adequate enforcement of compliance with the requirements of RCRA. *Id.; See generally Florida Power & Light Co. v. EPA*, 145 F.3d. 1414, 1416-17 (D.C. Cir. 1998). These authorized requirements operate "in lieu" of the federal program under Subtitle C. *See* 42 U.S.C. § 6926(b). Although RCRA allows states to impose more stringent requirements than the federal scheme, "the federal guidelines establish the minimum hazardous waste standards below which a state hazardous waste program may not operate." *In re Bil-Dry Corp.*, 9 E.A.D. 577, 596 (EAB 2001).

Once authorized by EPA, a state's hazardous waste regulations operate as requirements of RCRA Subtitle C and are enforceable by EPA pursuant to RCRA § 3008(a). 42 U.S.C. § 6928(a). *See, e.g., Martin Electronics, Inc., 2 E.A.D. 381, 385* (CJO 1987). While states continue to utilize state enforcement authority to enforce their own statutes and regulations, EPA retains its own independent enforcement authority under federal law (RCRA) in such states to enforce the requirements of RCRA Subtitle C. *See* 42 U.S.C. § 6928(a)(2); *General Motors Corp. v. EPA*, 363 F.3d 442, 444 (D.C. Cir. 2004) (". . . while an authorized state may enforce its hazardous waste program in lieu of the federal program, EPA has dual enforcement authority under RCRA. . ."). *See also Florida Power & Light*, 145 F.3d at 1417; *Waste Management of Illinois v. EPA*, 945 F.2d 419,420 (D.C. Cir. 1991). RCRA allows more stringent state requirements, but imposes a duty on states to maintain the authorized program requirements at a level at least as stringent as the federal floor. 42 U.S.C. § 6929. EPA may withdraw authorization of a state program after determining the state is not administering and enforcing an authorized program, and following withdrawal, establish the federal program. 42 U.S.C. § 6926(e).

The Facility that is the subject to this administrative proceeding is located in Roanoke, Virginia. First Set of Stipulations at 2, ¶ 9. On December 18, 1984, pursuant to Section 3006(b) of RCRA, 42 U.S.C. § 6926(b), and 40 C.F.R. Part 271, Subpart A, Virginia was granted final authorization to administer a state hazardous waste management program *in lieu* of the federal hazardous waste management program established under RCRA Subtitle C, 42 U.S.C. §§ 6921-6939e. The authorized Virginia hazardous waste management program ("VHWMP") was revised, effective September 29, 2000 (*see* 65 *Fed. Reg.* 46606 (July 31, 2000)), June 20, 2003

(s*ee* 68 *Fed. Reg.* 36925 (June 20, 2003)), July 10, 2006 (*see* 71 *Fed. Reg.* 27216 (May 10, 2006)) and July 30, 2008 (*see* 73 *Fed. Reg.* 44168 (July 30, 2008)). The current provisions of the VHWMP ("2003 VHWMP") are enforceable by EPA pursuant to Section 3008(a) of RCRA, 42 U.S.C. § 6928(a). First Set of Stipulations at 2, ¶ 4; See also CX 3 - 8.

The 2003 VHWMP, with exceptions not relevant to this matter, incorporates by reference the federal hazardous waste regulations as set forth in the July 1, 2001 Code of Federal Regulations. First Set of Stipulations at 2, ¶ 5. In this action, EPA is enforcing those Virginia state regulations that are within the federally-authorized 2003 VHWMP and which have become requirements of RCRA Subtitle C as a result of authorization. The federally-authorized 2003 VHWMP regulations incorporate by reference the federal hazardous waste regulations relevant to this matter (as set forth in the July 1, 2001 Code of Federal Regulations) such that those state regulations are identical, or materially identical, to the relevant EPA-issued rules. EPA will, therefore, frequently cite to the EPA-issued federal regulations for ease of reference throughout this Brief.

The federally authorized provisions of the VHWMP are requirements of RCRA Subtitle C and, accordingly, are enforceable by the Administrator of EPA pursuant to Section 3008(a) of RCRA, 42 U.S.C. § 6928(a). The Administrator of EPA has delegated this authority under RCRA to the Regional Administrators of EPA, and this authority has been further delegated in U.S. EPA - Region III to, inter alia, the Director of the Land and Chemicals Division, U.S. EPA - Region III ("Complainant"). First Set of Stipulations at 2, ¶ 2.

II. PROCEDURAL HISTORY AND STATEMENT OF FACTS

A. Procedural History

The Respondents own and operate a chemical distribution facility located at 1111 Industry Avenue, S.E. (hereinafter, "1111 Industry Avenue") and 1140 Industry Avenue, S.E., (hereinafter, "1140 Industry Avenue") Roanoke, Virginia 24013 (the "Facility") that is comprised of three tax parcels (4170102, 4240103 and 4240104), which collectively have been assigned EPA I.D. No. VAD980721088. This matter was commenced by the filing of an Administrative Complaint, Compliance Order and Notice of Opportunity for a Hearing ("Complaint") against the Respondents on March 31, 2011. EPA gave the Commonwealth of Virginia prior notice of the issuance of this Complaint in accordance with Section 3008(a)(2) of RCRA, 42 U.S.C. § 6928(a)(2). First Set of Stipulations at 2, ¶ 6. The Complaint alleges that the Respondents Chem-Solv, Inc. (formerly trading as Chemicals and Solvents, Inc., hereinafter "Chem-Solv"), and Austin Holdings – VA, L.L.C. ("Austin Holdings") violated Subtitle C of RCRA, 42 U.S.C. §§ 6921-6939e, and the Commonwealth of Virginia's federally authorized hazardous waste management program at their chemical distribution facility located in Roanoke, Virginia.

Count I of the Complaint generally alleges that the Respondents owned and operated a hazardous waste storage facility (i.e., the Facility) without interim status or a permit, in violation of 40 C.F.R. Part 270 and Section 3005(a) of RCRA, 42 U.S.C. § 6925(a). Counts II – VII of the Complaint generally allege that Respondent Chem-Solv failed to: make or perform required hazardous waste determinations on solid waste generated at the Facility, in violation of 40 C.F.R. § 262.11; have secondary containment for a Facility hazardous waste storage tank, in violation of 40 C.F.R. § 264.193(a), (d) and (e); obtain a tank assessment for a Facility hazardous waste

storage tank, in violation of 40 C.F.R. § 264.192(b) – (f); conduct and/or document inspections of a hazardous waste storage tank in the facility operating records, in violation of 40 C.F.R. § 264.195(b) and (d); comply with applicable air emission standards for tanks, in violation of 40 C.F.R. §§ 264.1082(b) and 264.1084(b); and failed to comply with the closure requirements of 40 C.F.R. Part 264, Subparts G and H, in violation of 40 C.F.R. § 264.197. The Complaint also specifically alleged that at all times relevant to the violations alleged therein, Respondent Chem-Solv was the owner and operator of the tax parcel 4240104 portion of the Facility and that Respondent Austin Holdings was the owner of the tax parcel 4170102 and 4240103 portions of the Facility. Complaint at 2 – 3, ¶¶ 3,4. The Complaint further alleged that a subgrade tank ("Acid Pit", "Pit" or "Rinsewater Tank No. 1") which is a subject of each count of the Complaint, was located on the tax parcel 4240104 portion of the Facility owned by Respondent Austin Holdings – VA, L.L.C. Complaint at 3, ¶ 14.

Respondents filed their Answer of Chem-Solv, Inc. and Austin Holdings-VA, L.L.C. ("Answer") on May 2, 2012 and therein denied all material allegations and requested the opportunity of a Hearing. In their Answer, the Respondents did admit that a subgrade "tank" (or "Pit"), as identified in the Complaint, was located on tax parcel 4240104. Answer at 12 - 13, ¶ 15. However, in response to allegations that Chem-Solv was "the owner and the operator of a 'facility' located on Tax Parcel 4240104," the Respondents only admitted that "Chem-Solv operates a chemical distribution on certain real property located in Roanoke, Virginia known as Tax Parcel 4240104" and thereafter denied the remaining allegations. Complaint at 2 – 3, ¶ 3; Answer at 2, ¶ 4.

By Order of Designation date May 20, 2011, Administrative Law Judge Barbara A. Gunning was designated as the Administrative Law Judge to preside in this proceeding. A

Prehearing Order dated May 31, 2011was issued by Judge Gunning on June 1, 2011. Pursuant to the schedule set forth in the Prehearing Order, the Parties timely filed their respective Initial Prehearing Exchanges. Also pursuant to that Prehearing Order, Complaint filed a Rebuttal Prehearing Exchange which included its proposed civil penalty, and explanation thereof, and a Motion to Strike a certain portion of the Respondents' Prehearing Exchange which contained settlement information. Respondents' thereafter filed a response in which they withdrew the offending portions of their Initial Prehearing Exchange. On November 16, 2001, Judge Gunning issued an Order Scheduling Hearing and Order on Complainant's Motion to Strike and Respondent's Motion to Withdraw, therein denying Complainant's Motion to Strike as "Moot" and setting deadlines for the filing of all non-dispositive motions and prehearing briefs and scheduling this matter for a Hearing on January 18, 2012. Those deadlines and the scheduled Hearing date were revised as a result of witness conflicts by a subsequent Order Rescheduling Hearing and Prehearing Deadlines, issued by Judge Gunning on December 7, 2011. The Hearing was rescheduled to begin on March 20, 2012.

Within the prescribed filing period, Complainant filed a Motion for Partial Accelerated Decision on November 29, 2011. Respondents filed their Response on December 13, 2011. In that Response, the Respondents amended their Answer regarding ownership of that portion of the Facility on which the sub-grade "tank" (or "Pit") was located, stating that "Respondents deny that Chem-Solv owns the real property on which Rinsewater Tank No. 1 is located" and admitting that "Austin Holdings is the owner of the real property on which Rinsewater Tank No. 1 is located. "[1] *See* Resp. Acc. Dec. Response at 10, ¶ 22; *see also* 2nd Austin Affidavit at 2-3,

[1] Complainant notes the generally accepted federal rule that a party is bound by the admissions in his pleadings. *Jones v. Morehead*, 68 U.S. 155 (1863). *See also*, *State Farm Mutual Automobile Ins. Co. v. Worthington*, 405 F.2d 683, 686 (8th Cir. 1968); *Giannone v. United States Steel Corp.*, 238 F.2d 544, 547 (3d Cir. 1956); *Hill v. FTC*, 124 F.2d 104, 106 (5th Cir. 1941); *Seven-Up Bottling Co. v. Seven-Up Co.*, 420 F. Supp. 1246, 1250-51 (E.D.Mo. 1976),

¶ 8. Complainant filed its Reply on December 22, 2011 and sought leave to file an original Declaration of one of its witnesses Nunc Pro Tunc (which was granted by Order dated January 5, 2012). In that Reply, and as direct result of the Respondents' most recent ownership claims, Complainant has requested and moved the Court to, among other things, "enter an Order . . . . conforming the pleadings to the facts as against both Respondents . . . [b]ased on the admission . . . [that] Chem[- S]olv is liable as an operator of the Facility [and] Austin Holdings, L.L.C. – VA. is liable as an owner of the Facility." Comp. Acc. Dec. Reply at 4, ¶ 22.[2] Judge Gunning subsequently denied Complainant's Motion for Partial Accelerated Decision in a February 7, 2012 Order on Complainant's Motion for Partial Accelerated Decision as to Liability.

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aff'd 561 F.2d 1275 (8th Cir. 1977); *Consolidated Rail Corp. v. Providence & Worcester Co.*, 540 F. Supp. 1210, 1220 (D.Dela. 1982); *Giles v. St. Paul Fire & Marine Insurance Co.*, 405 F. Supp. 719, 725 n. 2 (N.D.Ala. 1975). Numerous Courts specifically have held that factual assertions in pleadings and pretrial orders normally will be considered to be judicial admissions conclusively binding on the party who made them. *Meyers v. Manchester Insurance & Indemnity Co.*, 572 F2d 134 (5th Cir. 1978); *State Farm Mutual Automobile Ins. Co. v. Worthington*, 405 F.2d 683, 686 (8th Cir. 1968)*; Mull v. Ford Motor Co.*, 368 F.2d 713, 716 (2d. Cir. 1966). *See Barnes et. al. v. Owens-Corning Fiberglass*, 201 F.3d 815, 829 (6th Cir. 2000) (quoting *American Title Ins. Co. v. Lacelaw Corp.*, 861 F2d. 224, 226 (9th Cir. 1988), *citing Ferguson v. Neighborhood Housing Services*, 780 F2d 549, 551 (6th Cir. 1986) (Under federal law, stipulations and admissions in the pleadings are generally binding on the parties and the Court and on appeal.), *In re Fordson Engineering Corp.*, 25 B.R. 506, 509 (Bankr. E.D. Mich. 1982) (Judicial admissions are formal admissions in the pleadings which have the effect of withdrawing a fact from issue and dispensing wholly with the need for proof of the fact.), and *White v. Arco/Polymers, Inc.*, 720 F.2d 1391, 1396 (5th Cir. 1983) (Factual assertions in pleadings and pretrial orders, unless amended, are considered judicial admissions conclusively binding on the party who made them). *See also*, *Hill v. FTC*, 124 F.2d 104, 106 (5th Cir. 1941). *See also, Holiday Inns, Inc. v. Alberding*, 683 F.2d 931, 935 (11th Cir. 1982) (judicial admissions are proof possessing the highest possible probative value. Indeed, facts judicially admitted are facts established not only beyond the need of evidence to prove them, but beyond the power of evidence to controvert them). In addition, Courts routinely have held that "'[A] party's assertion of fact in a pleading is a judicial admission by which it is normally bound throughout the course of the proceeding.'" *Schott v. Motorcycle Supply Inc. v. American Honda Motor Co.*, 976 F2d. 58, 61 (1st Cir 1992) (quoting *Bellefonte Re Ins. Co. v. Argonaut Ins. Co.*, 757 F2d 523, 528 (2d Cir. 1985)); *see also Davis v. A.G. Edwards and Sons, Inc.*, 823 F2d 105, 108 (5th Cir. 1987).

[2] Based upon the "evidentiary Admissions and Stipulations" of the Parties, the Court recognized that Complainant now is seeking a "joint and several penalty against CHEMSOLV and Austin Holdings" for each of the violations alleged in the Complaint and denied the Motion to Dismiss Austin Holdings from this proceeding that the Respondents made at the close of Complainant's case in chief at the Hearing. TR1 at 118, 123. In the event, however, that the Court deems it necessary or appropriate for the Complaint to be formally amended , then Complainant renews its prior request and moves the Court to allow Complainant to amend the Complaint to conform to the evidence so that Counts II through VII of the Complaint may be amended and the violations alleged therein may be jointly plead against both Respondents: *i.e.*, against Respondent Austin Holdings, L.L.C. – VA. as the "owner" of the Facility and against Respondent Chem-Solv as the "operator" of the Facility.

On January 26, 2012, Complainant filed a Motion to Compel or in the Alternative, Motion in Limine, pertaining to Respondents' silence on any claimed inability to pay the proposed penalty. Respondents filed a response on February 9, 2012 and affirmatively stated that they did not, at such time, intend to raise that defense. On that basis, Judge Gunning denied Complainant's Motion by Order dated February 22, 2012.

Also on January 26, 2012, Complainant filed an unopposed Motion to Supplement and Correct its Prehearing Exchange. Respondent filed its own, similar Motion to Supplement on February 3, 2012. In a February 22, 2012 Order on Motions to Supplement the Prehearing Exchange, Judge Gunning granted both Complainant's and Respondents' Motions to Supplement their respective Prehearing Exchanges.

On January 27, 2012, Respondents submitted a Motion to Take Depositions Upon Oral Questions, in which they sought to depose EPA employee Mr. Kenneth Cox in Philadelphia, PA, VADEQ employee Elizabeth A. Lohman in Roanoke, VA, and EPA employee Jose Reyna, III in Ft. Meade, MD. On February 7, 2012, Complainant filed a Response in Opposition to that Motion and Respondents filed their Reply on or about February 17, 2012. On February 29, 2012, Judge Gunning issued an Order on Respondents' Motion to Take Deposition Upon Oral Questions in which she granted Respondents leave to take the limited scope depositions of EPA employees Kenneth J. Cox and Jose Reyna, III, denied the Respondents request to depose VADEQ employee Elizabeth A. Lohman and granted the respondents leave to submit written interrogatories to Ms. Lohman. (A Corrected Order on Respondents' Motion to Take Deposition Upon Oral Questions that did not materially change her ruling, subsequently was issued by Judge Gunning). The depositions of Mr. Cox and Mr. Reyna subsequently took place telephonically

(when Respondents' counsel experienced weather-related issues on the date scheduled for such depositions) on March 5, 2012 in Philadelphia, PA.

On January 30, 2012, Complainant filed an unopposed Motion for an Extension of Time seeking a continuance of the Hearing date. Judge Gunning denied the Motion in a February 3, 2012 Order on Complainant's Motion for an Extension of Time.

A Prehearing Conference between the Parties and an Office of Administrative Law Judge Judge Legal Assistant Steven Sarno was held on March 1, 2012. Also on March 1, 2012, the Respondents filed a Motion for Issuance of Subpoenas for five individuals listed by Respondents in their Prehearing Exchange and for one of Complainant's named witnesses who Respondents had reserved their right to call as a witness. On March 2, 2012, Chief Administrative Law Judge Susan L. Biro issued an Order of Redesignation, in which she designated herself as the Administrative Law Judge to preside in this proceeding. By March 2, 2012 Order on Respondents' Motion for Issuance of Subpoenas, Chief Administrative Law Judge Biro also granted the Respondents Motion for Issuance of Subpoenas. On March 8, 2012, Respondents filed their Pretrial Brief.

An Administrative Hearing in this proceeding, under Section 3008(a) of RCRA, was held pursuant to the 40 C.F.R. Part 22 *Consolidated Rules* in Roanoke, Virginia on March 20, 2012 through March 24, 2012. At the Hearing, Complainant introduced the testimony of four fact witnesses and one expert witness. The fact witnesses who testified on Complainant's behalf were Elizabeth A. Lohman, George Houghton, Peggy Zawodny and Kenneth J. Cox. Complainants' expert witness testimony was provided by Dr. Joe Lowry. Respondents introduced the testimony of two fact witnesses and one expert witness at the Hearing. The fact

witnesses who testified on Respondents' behalf were Donald Tickle and Jamison G. Austin. Respondents' expert witness testimony was provided by Scott Perkins, P.E.

A five volume transcript of the testimony given during that Hearing was received by the EPA Region III Regional Hearing Clerk on April 19, 2012 and copies of the transcript were sent to the Parties' counsel and to the Court on April 23, 2012.[3]

On May 10, 2012, the Court issued a Post-Hearing Scheduling Order. That Order included a briefing schedule and also provided that, upon review and pursuant to 40 C.F.R. § 22.25, any party could file a motion to conform the transcript to the actual hearing testimony by May, 25, 2012.

On May 23, 2012, Complainant filed its Motion to Conform the Hearing Transcript. Respondents filed a similar Motion on May 24, 2012. On June 26, 2012, the Court issued an Order on Motions to Conform the Transcript and, in large part, accepted each proposed correction in Complainant's and Respondents' Motions, with several rejections, modifications and additions.

On June 5, 2012, Complainant filed an unopposed Motion to Modify Briefing Schedule. On June 12, 2012, Chief Administrative Law Judge Biro granted Complainant's Motion and issued an Order on Motion to Modify Briefing Schedule. Pursuant to the schedule set forth therein, the deadline for the filing of Complainant's Initial Post-Hearing Brief is June 29, 2012. Respondent's Initial Post-Hearing Brief is to be field by August 31, 2012. Complainant's Reply

[3] Each of the five hearing transcript volumes in this proceeding corresponds to a particular (and singular) hearing date. For citation brevity, Complainant cites to the hearing transcript by relevant volume number, rather than by date, in the following manner:

Hearing Date		Tr. Vol.		Citation
March 20, 2012	=	Volume 1	-	TR1
March 21, 2012	=	Volume 2	-	TR2
March 22, 2012	=	Volume 3	-	TR3
March 23, 2012	=	Volume 4	-	TR4
March 24, 2012	=	Volume 5	-	TR5

Brief, or a statement that no reply will be submitted, is due to be filed by October 1, 2012 and Respondents' Reply Brief, or a statement that no reply will be submitted, is due to be filed by November 1, 2012.

B. Summary of Facts

1. The Respondents and the Facility

Respondents Chem-Solv and Austin Holdings each are "persons" as defined in Section 1004(15) of RCRA. First Set of Stipulations at 2, ¶ 8. The Facility owned by Respondent Austin Holdings and operated by Respondent Chem-Solv at 1111 and 1140 Industry Avenue, Roanoke, Virginia is a "facility" within the meaning of the VHWMP and RCRA. First Set of Stipulations at 2, ¶¶ 12 – 13.

2. EPA and VADEQ Facility Inspections

On May 15, 2007, Kenneth J. Cox, a duly authorized EPA representative, and Elizabeth A. Lohman and Kim Thompson, duly authorized VADEQ representatives, conducted an inspection at the 1140 Industry Avenue portion of the Facility owned by Respondent Austin Holdings and operated by Respondent Chem-Solv. Complaint at 3, ¶ 6. Answer at 2, ¶ 7. First Set of Stipulations at 2 – 3, ¶¶ 9, 12 – 14. CX 17 at EPA 295. CX 19 at EPA 372, 373, 390 - 454. TR1 at 86. TR3 at 7. On May 18, 2007, VADEQ representatives Elizabeth A. Lohman and Kim Thompson conducted a follow-up inspection of the 1111 and the 1140 Industry Avenue areas of the Facility owned by Respondent Austin Holdings and operated by Respondent Chem-Solv. Complaint at 3, ¶ 8. Answer at 2, ¶ 9. First Set of Stipulations at 3, ¶¶ 9 – 12, 16. CX 19 at EPA 372 – 385, 455 - 530. TR1 at 88, 95. On May 23, 2007, duly authorized EPA representatives George Houghton and Jose Reyna, along with VADEQ representatives Elizabeth A. Lohman and Kim Thompson, conducted a subsequent inspection of the 1111 and the 1140

Industry Avenue areas of the Facility. Complaint at 3, ¶ 8. Answer at 2, ¶ 9. First Set of Stipulations at 3, ¶ 16. CX 18. CX 19 at EPA 372, 386 – 389, 531 - 641. TR1 at 88, 95. Mr. Cox, Ms. Lohman and Ms. Thompson and Mr. Houghton each prepared reports of their Facility inspection activities. CX 17; CX 18; CX 19.

3. Information Request Letters and Responses

Subsequent to the May 2007 Facility Inspections, EPA sent Respondent Chem-Solv a series of Information Request Letters ("IRLs"), pursuant to Section 3007(a) of RCRA, 42 U.S.C. § 6927(a), on November 16, 2007, February 4, 2008 and April 1, 2008. CX 20; CX 22; CX 24. Respondent Chem-Solv replied to those IRLs by letters dated December 10, 2007, February 6, 2008 and April 4, 2008. CX 21; CX 23; CX 25. On September 16, 20011, EPA also issued an IRL to the Michigan Disposal and Waste Treatment Plant and EQ Detroit pertaining to hazardous waste shipped to a Facility owned and operated by them. CX 63 at EPA 1792 – 1795. These entities responded to that IRL with requested information on September 20, 2011. CX 63 at EPA 1791 – 1801.

4. Pit Water and Pit Sludge Storage in the Warehouse and in the Pit

During the course of the May 23, 2007 Facility inspection, EPA inspectors Houghton and Reyna sampled the contents of certain containers at the Facility and collected physical samples of liquid and solid material in a sub-grade tank, known as the Pit" Complaint at 3, ¶ 8. Answer at 2, ¶ 9. First Set of Stipulations at 3, ¶ 16. CX 18. CX 19 at 386, 387 – 389. CX 15 at EPA 244. CX 29. TR1 at 122, 125, 135 - 136, 148 – 149, 168, 199, 211 – 236. Prior to conducting these sampling activities, the EPA and VADEQ inspectors conversed with the Facility Operations Manager Cary Lester. In his log book, Mr. Houghton recorded learning from those conversations that Chem-Solv at one time had a wastewater pretreatment permit, but it was

"pulled" and that Chem-Solv neutralized the Pit water and sludge between the Pit and an above ground tank prior to disposal off-site by "tank truck". CX 29 at EPA 1210, 1211. Both Ms. Lohman and Mr. Houghton similarly recorded being told that totes of Pit water and Pit sludge in the warehouse at the time of the May, 23, 2007 Facility inspection had been stored in the warehouse between September of 2006 and April of 2007. CX 19 at EPA 387. CX 29 at EPA 1215. Mr. Houghton also recorded learning that Chem-Solv was presently generating approximately 5,000 gallons per month of Pit Water. CX 29 at EPA 1215. Ms. Lohman further recorded learning from the Facility Operations Manager that these totes of Pit water and Pit sludge required storage "when HOH corporation ceased to accept waste from C[hem]-S[olv] without analysis" and that Chem-Solv planned "to 'slowly combine' these 'older' wastes with current shipments of wastewater generated across the street at 1140 Industry Avenue. . . ." CX 19 at EPA 387. Chem-Solv subsequently stated that "wash water from the [P]it typically contains a solid content of 10 – 30% by volume" which "are typically conveyed with the wash water shipments" with "no separate determination made" and that "there is not a marked difference between "[P]it solids" and "[P]it sludge". CX 23 at EPA 1081, ¶¶ 14.d and g.

Mr. Houghton additionally recorded learning that Pit sludge was a hydroxide sludge that was light and fluffy and that four drums of Pit Sludge in the Facility Warehouse were from a Pit clean-out performed by Chem-Solv in May of 2005 and had been "just found" in the 1111 Industry Avenue Warehouse the week prior to the May 23, 2007 inspection, but that the contents of these drums had not been specifically characterized. TR1 at 210 – 211. *See also* CX 29 at EPA 1214 and 1215. Mr. Houghton additionally recorded learning from the Facility Operations Manager that Chem-Solv had not characterized the Pit sludge generated at the Facility, but that in the past it had been mixed with other waste streams and a characterization of the comingled

mixture had been performed. TR1 at 211. CX 29 at EPA 1214. Ms. Lohman similarly recorded learning from Mr. Lester, during the course of her prior May 18, 2007 Facility inspection, that a comingled mixture of spill cleanup debris and contaminated stormwater sediments released into the swale at the Facility in 2003 had been placed into a roll-off box, mixed with some Pit sludge and that Mr. Lester then collected a composite sample of the mixture of soils, spill cleanup debis and Pit sludge for analysis and characterization. CX 19 at 377, 378. TR1 at 116.

Chem-Solv has reported that a partial removal of Pit sludge from the Pit "occurred in June 2007 after the EPA sampling visit of 5/23/07" and that the "[r]emaining removal occurred on January 30, 31 and February 1, 2008." CX 23 at EPA 1083, ¶ 17.c.

5. Pit Sampling and Analysis

EPA inspector Houghton labeled, packaged, stored, locked and prepared chain of custody tags and a chain of custody form for the Pit water and Pit sludge samples that he and Mr. Reyna collected on May 23, 2007 from the Pit at the Facility. TR1 at 236 - 245. CX 15 at EPA 244. He personally delivered and signed custody of those samples over to the EPA laboratory in Fort Mead, Maryland on the afternoon of May 24, 2007 for Toxic Characteristic Leeching Procedure and Volatile Organic Analysis. TR1 at 245 – 247. CX 15 at EPA 244.

Ms. Peggy Zawodny, an experienced and highly qualified lab analyst at the EPA laboratory in Fort Meade, Maryland, testified to the procedures employed at the laboratory upon receipt. Ms. Zawodny initially performed a screening analysis of the samples collected from the Pit at the Chem-Solv Facility for the total amount of volatile organics in the raw sample. TR2 at 15-16. CX 15. She subsequently followed and applied TCLP preparatory procedures to prepare the Chem-Solv samples for TCLP analysis and then performed such analysis on the resulting TCLP-prepared sample. The analysis showed the presence of chloroform in the Pit water TCLP-

prepared sample at 6.1 mg/L, exceeding the regulatory limit of 6.1 mg/L. TR2 at 33; CX 16 at EPA 285; 40 C.F.R. § 261.24. In the Pit solids TCLP-prepared sample, tetrachlorethene was present at 457 mg/L, exceeding the regulatory limit of 0.7 mg/L, while trichloroethene was present at 16 mg/L, exceeding the regulatory limit of 0.5 mg/L. TR-2 at 33; CX 16 at EPA 285; 40 C.F.R. § 261.24.

6. Disposal of Pit Sludge and Removal of the Pit

Chem-Solv removed the solids content of the Pit between January 30, 2008 and February 1, 2008. CX-23 at EPA 1083. Analysis of raw samples of the solids removed from the Pit (CX 63 at EPA 1791 – 1801; TR4 at 248) led Chem-Solv to dispose of 35 containers, weighing 17,500 pounds, of Pit sludge as "D039" and "D040" "Hazardous waste solid (trichloroethylene, perchloroethylene)" on February 20, 2008 under Uniform Hazardous Waste Manifest 004172818JJK. CX 23 at EPA 1127 – 1137.

Chem-Solv thereafter physically removed the Pit (i.e., the sub-grade tank) at the 1140 Industry Avenue portion of the Facility from the ground during the first two weeks of February, 2008. TR4 at 242 – 244. VADEQ never received a RCRA closure plan or a proposed RCRA closure plan from Chem-Solv prior, or subsequent, to its removal of the pit from the ground. TR1 at 152.

7. Sodium Hydrosulfide Material

During the May 23, 2007 Facility inspection, the VADEQ inspectors observed and smelled a leaking drum inside the 1111 Industry Avenue portion of the Facility. Complaint at 6, ¶ 30. Answer at 4, ¶ 31. CX 19 at EPA 387, 581, 593 – 598. TR1 at 128 – 134. The leaking drum was labeled with a Chem-Solv label identifying its contents as "Sodium Hydrosulfide 45%" and with a separate "corrosive" label. CX 19 at EPA 581. TR1 at 129 – 130. The drum

was a black drum "dented inward" in several areas. TR1 at 129 - 130. CX 19 at EPA 581, 593, 595. Ms. Lohman observed and recorded the color of the material leaking from the drum as "yellow" and the smell of the material was a "rotton egg" smell. TR1 at 128, 130. She also recorded her observations that the drum had released "a yellow material, residual material [that was] piling up on the wooden pallet on which the drum was sitting" and had leaked "onto" and "below" the pallet on which it was being stored and "onto the top of an open sodium hydroxide drum" that was then being stored on a pallet immediately below the leaking drum of sodium hydrosulfide such that there was "liquid pooling on the top" of the lower drum. TR1 at 131 - 132. *See also* CX 19 at EPA 594, 596 – 601.

Ms. Lohman observed that the condition of the drum of sodium hydrosulfide on May 23, 2007 was such that it "couldn't be shipped" or "put into transportation under DOT regulations" because it "didn't meet the shipping requirements for containers." TR1 at 134. During the course of the May 23, 2007 Facility inspection, the Facility Operations Manger had a fork lift operator move the leaking sodium hydrosulfide drum from the 1111 Industry Avenue Warehouse. TR1 at 133. The manner in which the drum was moved caused liquid to "slosh[] off" of the drum, leaving both a "trail" and "residual on the floor" which were not cleaned up off the Warehouse floor while the VADEQ inspectors were present. TR1 at 133. *See also* CX 19 at EPA 602 – 605.

The VADEQ inspectors also observed two other containers of sodium hydrosulfide during their May 2007 Facility inspection activities. TR1 at 140. One of those containers was located in the entry to the 1111 Industry Avenue Warehouse, in the container return area, and was spray painted on the side with the letters "PD." The VADEQ inspectors recorded the statements of a Facility employee who explained to them that the material inside that drum was

hardening and that: he was "deciding what to do" with the drum and its contents; they would test the material, and if it was "good," the material will be put back into product inventory; and that he was waiting for another Chemsolv employee to decide what to do with it. CX 19 at EPA 381. TR1 at 142. The third drum of sodium hydrosulfide that the VADEQ inspectors observed at the Facility in May of 2007 was located in the Drum and Container Destruction Area at the Facility and was marked and labeled "PD" and "sodium hydrosulfide." CX 19 at EPA 389. The VADEQ inspectors recorded the Facility Operations Manager's statements that he was uncertain as to why partially filled drums were in that area of the Facility, because only empty drums were supposed to be brought back from customer facilities. TR1 at 144 -145.

The leaking drum of sodium hydrosulfide observed in storage at the Facility by the VADEQ inspectors on May 23, 2007 subsequently was shipped off-site from the Facility for disposal by Respondent Chem-Solv as a D002/D003 corrosive and reactive hazardous waste on February 20, 2008 with accompanying Uniform Hazardous Waste Manifest and Land Disposal Restriction forms. CX 23 at EPA 1078, 1097, 1098 - 1102. RX 14 at CS 194. The other two drums of sodium hydrosulfide material were shipped, by Respondent Chem-Solv, to a company named C.H. Patrick Corporation on or about October 6, 2008 under a Bill of Lading and an associated Invoice indicating that the materials were sent at "No Charge" and "$0.00" expense to that company. RX 15 at CS 196, 195.

8. Used and Discarded Aerosol Cans

During the course of the May 18 and May 23, 2007 Facility inspections, used aerosol cans were in storage for disposal with the regular trash at the Facility. Complaint at 7 – 8, ¶ 43. Answer at 6, ¶ 44. CX 19 at EPA 529, 530, 620. In its February 4, 2008 IRL, EPA inquired as to Chem-Solv's use, management and disposal of used aerosols generated at the Facility at the

time of the May 18, 2007 and May 23, 2007 VADEQ inspections and for the submission of "any and all waste determinations for all aerosol cans used at the Facility". CX 22 at EPA 1066, 1067, ¶¶ 12.a, 12.b and 12.c. In a written and certified February 6, 2008 response to these IRL questions, Chem-Solv's Vice President and General Manager stated that: "Aerosolv Model 5000 Aerosol Can Recycling Solution is used to process all aerosol cans[;] [e]mpty aerosol cans are discharged in regular trash disposal after processing with Aeroslv 5000" and that waste determinations for aerosol cans were "N/A" (to indicate 'not applicable'). CX 23 at 1078, 1079, ¶¶ 12.a, 12.b and 12.c.

III. BURDENS OF PRESENTATION AND PERSUASION

In an administrative proceeding under the *Consolidated Rules*, the complainant herein has the burdens of presentation and persuasion that the violations have occurred as set forth in the complaint and that the relief sought is appropriate. 40 C.F.R. § 22.24(a). Pursuant to 40 C.F.R. § 22.24(b), the complainant has the burden of proving that a violation occurred by a "preponderance of the evidence." *In re Roger Antkiewicz* & *Pest Elimination Products of America,* 8 E.A.D. 218, 227 (EAB 1999). In this respect, the Environmental Appeals Board ("EAB") has held that "the preponderance of the evidence standard means that a fact finder should believe that his factual conclusion is more probable than not (*i.e.*, more credible or convincing to the mind). *In re The Bullen Companies., Inc.,* 9 E.A.D. 620, 624, n.7; 632 (EAB 2001) (quoting *In re Ocean State Asbestos Removal Inc.,* 7 E.A.D. 522,530 (EAB 1998). *In re: Norma J. Echevarria and Frank J. Echevarria, d/b/a Echeco Environmental Services*, 5 E.A.D. 626, 638 (EAB 1994) (citing *In re Great Lakes Div. Of Nat'l Steel Corp.*, 5 E.A.D. 355, 363 n. 20 (EAB 1994) (preponderance of the evidence means that a fact is more probably true than untrue)); *In re City of Detroit*, 3 E.A.D. 514 (CJO 1991); *Koch, Administrative Law and*

Practice, at 491 (1985). EPA, as the complainant, has the burden of providing evidence that the violation occurred. 40 C.F.R. § 22.24(a); *In the Matter of Sandoz, Inc., 2* E.A.D. 324 (CJO 1987).

Under the *Consolidated Rules*, the respondent has the burdens of presentation and persuasion for any affirmative defenses. *See* 40 C.F.R. § 22.24(a) ("respondent has the burdens of presentation and persuasion for any affirmative defenses"); *See also* 50 Fed. Reg. 614, 642 (Jan. 4, 1985) (noting that the entity claiming its hazardous secondary material is not a waste because the material falls within a regulatory exception is raising an affirmative defense, and the entity must bear the burdens of producing evidence and of persuasion with respect to that defense). Affirmative defenses include claims which are "avoiding in nature" and would defeat the complainant's prima facie case. *See, e.g., In re New Waterbury. Ltd*. 5 E.A.D 529, 540 (EAB 1994)("'[a] true affirmative defense, which is avoiding in nature, raises matters *outside* the scope of the plaintiff's prima facie case'") (quoting 2A Moore's Federal Practice Manual 8-17a (2d ed. 1994)); *In re Standard Scrap Metal Co.*, 3 E.A.D. 267, 272 (CJO 1990) ("[g]enerally, a statutory exception (or exemption) must be raised as an affirmative defense, with the burden of persuasion and the initial burden of production upon the party that seeks to invoke the exception"); *see also In re Capozzi*, 11 E.A.D. 10, 19-20 n.16 (EAB 2003) (party seeking to invoke regulatory exception as a "small quantity generator" bears burdens of production and persuasion).

The EAB has elaborated on the burden of proof, stating:

> The term "burden of proof" * * * encompasses two concepts: the burden of production, and the burden of persuasion. The first of these to come into play is the burden of production -- that is, the "duty of going forward with the introduction of evidence." This burden may shift during the course of litigation; if a complainant satisfies its burden of production, the burden then shifts to the respondent to produce, or go forward with the introduction of, rebuttal evidence. The burden of persuasion comes into play only "if the parties have sustained their burdens of producing evidence and only when all of the evidence has been introduced." This burden refers to what a "litigating proponent must

establish in order to persuade the trier of facts of the validity of his claim." Importantly, this burden does not shift.

In re City of Salisbury, 10 E.A.D. 263, 278-79 (EAB 2002), citing *In re New Waterbury, Ltd.*, 5 E.A.D. 529,536-37 n.16 (EAB 1994).

IV. SELECTED CROSS-CUTTING ISSUES

The violations alleged in this case involve three different classes of materials found at Respondents' Facility: (1) water and solids found in a below-grade tank known to Chem-Solv employees as "the Pit" or "the Acid Pit"; (2) sodium hydrosulfide found in a drum at the 1140 Industry Avenue warehouse; and (3) aerosol paint cans found in various locations at the Facility. For each of these materials, Respondents have attempted to argue that the materials were either not waste, or were exempt from regulation under RCRA. However, Respondents claims with regard to each of these materials have been far from consistent. For each such material, Respondents are now claiming facts which are inconsistent with the facts previously provided by Respondents to EPA. In each instance, the original facts presented by Respondents do not fit the regulatory exemptions Respondents now claim. Respondents' shifting stories appear to be an after-the-fact attempt by Respondents to make the facts fit the exemptions.[4] As will be shown in more detail in the discussion below, the testimony of Respondents' witnesses regarding these facts are simply not credible.

There are a number of issues in this case on which the parties differed considerably. Many of these issues related to more than one count. Additionally, the facts surrounding many of these issues provide examples showing the lack of credibility of Respondents' witnesses. For these reasons Complainant's Brief discusses some these cross-cutting issues first, before turning to a discussion of individual Counts.

[4] In fact, as discussed below, even if the facts *were* as claimed by Chem-Solv, Chem-Solv still would not qualify for the exemptions it claims.

The below-grade tank known as the Acid Pit figures prominently in each of the counts alleged in the Complaint. The Acid Pit, which has a maximum holding capacity of approximately 1,900 gallons, First Set of Stipulations, ¶ 27, originally was part of a wastewater treatment system which led to a permitted discharge into the local publically owned treatment works ("POTW"). The Pit collected wastewater from line flushing operations as well as various drum cleaning operations. This wastewater could be extremely acidic or extremely basic, and was neutralized before being discharged to the POTW.

At some point Respondents' right to discharge to the POTW was revoked, although it is not clear exactly how this change was effectuated. It is not clear if Respondents' permit itself was revoked, or if the permit was changed to a zero discharge permit. Either way, Chem-Solv had to stop discharging from the Pit into the POTW. At this point, Chem-Solv began shipping the Pit water off-site, originally to a company called Noble Oil Services, then later to HOH Corporation and then to Shamrock Environmental Services, Inc. CX 19 at EPA 375.

It is also not clear exactly *when* Respondents' discharge privileges were lost. Regardless of the exact date, it is clear that wastewater was being shipped to an offsite facility at least as of February, 2004, according to the shipping records provided by Chem-Solv to EPA. CX 21 at EPA 650-651.

There are a number of factual disputes between EPA and Respondents about the operation of the Acid Pit after discharges to the POTW were halted. EPA believes that these differences do not affect the overall outcome on the issue of liability – even if Respondents' current version of the facts is believed, the Acid Pit could not qualify for an exemption from RCRA. However, the exact scope of the claimed RCRA exemptions need not even be reached, because Respondents' current version of the facts is simply not credible. The Court has had the

opportunity to listen to read the documentary evidence, listen to the testimony, and observe the witnesses' demeanor. It is Complainant's position that Respondents' witnesses are not credible, and thus Respondents cannot even make out a colorable claim to any of the RCRA exemptions and exclusions they seek to prove. It is necessary, therefore, to discuss in detail the numerous inconsistencies and dubious elements in the testimony and past statements of Respondents' witnesses.

Complainant contends that Respondents stored hazardous waste in the Acid Pit, leading to violations caused by Respondents' failure to meet a number of different requirements for hazardous waste tanks. An important element of Complainant's proof of these violations is a showing that the Pit contained hazardous wastes. Complainant introduced evidence that EPA inspectors collected samples of the water layer at the top of the Pit, and samples of the consolidated solids in the lower regions of the Pit. These samples were analyzed in EPA;s laboratory, which reached the conclusion that the water samples contained chloroform at above regulatory levels, and the solids contained tetrachloroethene and trichloroethene in excess of regulatory levels. This evidence demonstrated that the material in the Pit met the toxicity characteristics for three different EPA hazardous waste codes, D039, D040 and D022, at the time of the sampling. In addition, the results of the sampling and analysis is strong evidence that the waste stored in the Pit even more strongly met the toxicity criteria for those toxic hazardous waste at the time the wastes entered the Pit.

In addition, the hazardous chemicals found in the Pit provide evidence of an independent basis for concluding that the Pit contains hazardous waste. Chem-Solv does not engaging in the manufacture of chemical products, and the Pit is not part of any such chemical manufacturing process, but Chem-Solv does repackage and sell numerous chemical products. The extremely

high levels of tetrachloroethene and trichloroethene found in the Pit are a clear indication that those contaminants are the result of the discarding of commercial chemical products into the Pit, either deliberately or accidentally. Therefore the Pit contained discarded commercial chemicals identified under EPA hazardous waste codes U210 and U228, and may have also contained discarded commercial chemicals evidenced by the other toxic contaminants found in the Pit.

A. Flushing of Lines

Mr. Austin claimed that Chem-Solv stopped washing the insides of returned drums into Pit after losing its POTW discharge privileges, and also ceased flushing pumps and product filling hoses into the Pit. Acc. Dec. Resp., 2nd Austin Affidavit at 2, ¶ 7. These claims are at best a half-truth. At least with regard to the flushing of pumps and hoses, Mr. Austin's claim is inconsistent with earlier representations made by Chem-Solv to EPA.

During the May 18, 2007 VADEQ inspection, Cary Lester told the Virginia inspectors that Chem-Solv at that time no longer rinsed the insides of returned containers. CX 19 at EPA 374. In this regard Mr. Lester's statement was consistent with Mr. Austin's testimony. However, Mr. Lester also told the inspectors that Chem-Solv continued to flush the acid and caustic lines in the Pit area, at least as of the date of the inspection. CX 19 at EPA 374. This statement was made in 2007, at the time when the flushing itself would have been occurring, and was made by Chem-Solv's Operations Manager, who would be expected to be completely knowledgeable about the operations at the Facility. Moreover, Mr. Lester would have had no incentive to make an erroneous statement on this subject. Mr. Austin, on the other hand, was testifying nearly five years after the time period at issue, and had a clear incentive to minimize the risks posed by the operations at the Facility.

Moreover, Mr. Austin's testimony on this point appears inconsistent with an earlier statement submitted to EPA by Mr. Austin himself. In December, 2007, Chem-Solv submitted a

response to an EPA information request. CX 21. This response was signed and certified by Mr. Austin. CX 21 at 664-665. According to this document, Chem-Solv shipped wastewater off-site from the Pit at a rate of several thousand gallons per month between 2004 through November, 2007. CX 21 at EPA 651-654. Chem-Solv noted that it had been generating wash water "over the last six months" at a rate of "slightly over 5000 gallons per month," but claimed that this generation rate was being reduced for December, 2007 and January 2008 "based on new production procedures and initiatives such as dedicated containers, hoses, nozzles and pumps eliminating the need to flush between products." CX 21 at EPA 658. If Chem-Solv had not continued to generate line flush in the Pit area until at least December, 2007, then the language used by Chem-Solv in its information request response would have made no sense. If wash water was not being used to flush lines during 2007, then Chem-Solv could not have made the huge reduction in the generation of wash water which it claimed to make, *beginning in December, 2007*, by eliminating the flushing of lines.

B. <u>The Blend Room Drain</u>

Mr. Austin also testified that the Acid Pit could not have received any materials handled in an area known as the "blend room," TR4 at 206-207, an area where Chem-Solv blended organic solvents and other organic chemicals. TR1 at 86-90. According to Mr. Austin, a drain in the blend room formerly connected the blend room to the Pit, but this drain was "capped" at the time of the 2007 EPA and state inspections. TR4 at 206-207. His testimony that the drain was capped is inconsistent with prior statements made by both Mr. Austin and Mr. Lester. During the May 15, 2007 EPA inspection, the EPA inspector, Ken Cox, noticed the floor drain, and asked Mr. Austin if the drain connected the blend room to the Pit. TR3 at 7-8. According to Mr. Cox, Mr. Austin replied that it did lead to the Pit. TR3 at 8; CX 17 at EPA 297. Ms. Lohman, who was present during this exchange, confirmed Mr. Cox's version of this conversation: Mr.

Austin stated at the time that the floor trench drain in the blending room led to the Pit. TR1 at 87, 174-175. Moreover, during the May 18, 2007 state inspection, Mr. Lester was asked about the use of the Pit, and he confirmed that product spillage and floor wash wastewater from the blending room went into the floor drain and to the Pit. TR1 at 88, 174; CX 19 at EPA 374.

Simply by looking at a photograph of the trench drain taken on May 15, 2007, CX 17 at EPA 312, it appears highly unlikely that the trench drain was plugged at the time the photo was taken. The photo shows a drain, below the level of the floor in the blend room, with a metal grate above the drain. If the drain did in fact drain to the Pit, then liquids entering the drain below the grating would drain away from the blend room. However, if the drain was plugged somewhere below the surface, then liquids would not drain, and would instead accumulate in the drain. Such standing water would be difficult to remove, because the metal grate would have to be removed, and the water would have to be vacuumed or ladled out – it could not be easily pushed away using a simple squeegee because the of the narrowness and depth of the below-grade trench, as show in the photo, and there would have been no way to clear the piping above the supposed "cap." It is hard to believe that Chem-Solv would have plugged the drain below the surface but otherwise left the drain itself in place for years in a condition which would lead to a repeated need to clear the standing water from the drain – especially given the practical problems in clearing water due to the grate and the narrowness of the trench. In fact, Don Tickle, a Chem-Solv maintenance worker, testified that the trench drain was never cleaned or washed out. TR3 at 153. If true, this testimony would appear to indicate that the drain was not in fact capped, given the obvious need to clear standing liquid out of a drain that was blocked below ground.

If Chem-Solv had wanted to seal the drain to prevent waste water from reaching the Pit, it would have made much more sense to fill in the entire drain with concrete, which would prevent the build-up of standing water in the drain. If the drain had truly been "capped" in 2007, as Respondents now claim, then one would have expected the drain to be filled in. In fact, in 2008, *after* the EPA and state inspections (and after Chem-Solv received an information request asking about the drain), Chem-Solv *did* fill the drain with concrete. TR3 at 146-147.

Respondents' current position – that, even prior to filling the trench with concrete, the trench was plugged somewhere below the ground – would require the ALJ to believe that Ms. Lohman and Mr. Cox were both mistaken in their testimony as to Mr. Austin's and Mr. Lester's satements. There are no photographs, documents or other physical evidence showing that the drain was plugged in 2007. Respondents' only evidence to rebut the testimony of Ms. Lohman and Mr. Cox is the testimony of Mr. Austin and Mr. Tickle. Each of these two witnesses' testimony on this point is far from convincing.

Mr. Austin admitted that when asked by Mr. Cox in 2007 if the trench drain drained to the Pit, his response was "yes, it led to the Pit." TR4 at 206. However, he also testified to his "recollection" that he then qualified his answer by stating that the drain was no longer conveying water to the Pit and the piping had been capped. TR4 at 206. If the piping had truly been capped in 2007, it is hard to believe that anyone in Mr. Austin's position would have answered Mr. Cox's question by stating yes, it led to the Pit, regardless of whether he planned to qualify that answer. Mr. Austin admission that he initially answered "yes" may be an attempt to explain how two different inspectors could both have misunderstood him, but, if so, it is not convincing. If Mr. Austin had in fact qualified his answer in 2007, it is highly unlikely that both Ms. Lohman and M. Cox could have failed to hear that qualification. It is even less likely that Mr. Lester, a

few days later, would *confirm* for Ms. Lohman that product spillage and floor wash wastewater from the blending room went into the floor drain and to the Pit. TR1 at 88, 174; CX 19 at EPA 374.

Mr. Tickle's testimony is also unconvincing. He testified that he believed that the blending room trench drain had a "cap" as of 2004, when he first began working at Chem-Solv. TR3 at 146. However, there is no foundation as to his opportunity to make such a determination. Mr. Tickle stated that in 2004 he "checked" the pipe leading from the trench drain and saw a concrete cap on the pipe. TR3 at 146. Mr. Tickle gave no explanation as to why he would have checked the drain in 2004, nor does he explain how he could see a cap on a pipe that was below the pavement. The trench drain itself was certainly below grade –it would have been of little value as a drain if it had been higher than the floor in the blend room. There is no indication that the pipe leading from the drain was above-ground, and, again, it would make no sense for the pipe – which conveyed liquid from the blend room to the pit via gravity -- to be at a higher elevation than the drain itself. Mr. Cox testified that he saw a "scar" or repaired area in the paving leading from the floor drain area toward the Pit, TR3 at 7 – 8, indicating that the piping from the drain to the Pit was under the paving and thus exactly where one would expect a pipe from a floor drain pipe to be: below the surface.

Complainant recognizes that Mr. Tickle was in a very difficult position in this case, having to testify in front of his employer. Complainant sympathizes with his plight. He is clearly a low-level employee at the Chem-Solv facility, and would not want to do anything during his testimony to jeopardize his job, particularly given the very high levels of unemployment throughout the economy. There was little doubt that he was a very nervous witness, which was quite understandable under the circumstances. However, despite any

sympathy one might have toward Mr. Tickle, we cannot ignore his obvious incentive to testify in accordance with his employer's wishes.

Given the difficulty Mr. Tickle would have faced in visually "checking" an underground pipe, his claim that he did so in 2004 – in such a manner which could lead him to conclude that "nothing can go out that drain," TR3 at 146 -- is highly suspect. Mr. Tickle's testimony with regard to the capping of the pipe need not be completely disbelieved in order to discount its weight. Mr. Tickle may have in fact seen something, somewhere, which appeared to him to be a cap, and he may sincerely believe that it was a cap – particularly with his employer encouraging him to reach such a conclusion. However, his testimony is very vague on this point. He does not explain what it was that he saw, where he saw it, and how he knew that it would prevent liquids from reaching the Pit. In short, his testimony does not provide a convincing foundation from which to determine that he had a sufficient ability to observe the drain and the underground piping to allow him to reach the conclusion that "nothing can go out that drain."

C. Alleged Observation of EPA's Sampling

Respondents' Prehearing Exchange included an affidavit from Mr. Austin, dated September 8, 2011. RX 2. In this affidavit, Mr. Austin claims to have "personally observed the EPA's inspector collect samples of rinsewater and settled solids from Rinsewater Tank Number 1 during the Sampling Event." RX 2 at CS 004, ¶ 16. "Rinsewater Tank No. 1" refers to the 1800-gallon subgrade tank, *see* RX 2 at CS 004, ¶ 12, otherwise referred to in this Brief as the Acid Pit. The "Sampling Event" is a reference to the EPA inspection of May 23, 2007. Thus Mr. Austin's claim, translated into the terminology used during the hearing in this matter, is that he personally observed EPA's sampling of the Acid Pit on May 23, 2007. This claim is simply not credible.

The EPA inspectors were too focused on the sampling to pay attention to whom was present, TR1 at 236. However, Beth Lohman testified that on May 23, 2007, she encountered Mr. Austin only once, as the inspectors were on their way to the Acid Pit. TR1 at 147. After a brief conversation, Mr. Austin got into his car and drove away from the Facility. TR1 at 147. Ms. Lohman was present during the entire sampling activity at the Pit, but she did not see Mr. Austin again after she saw him drive away. TR1 at 148-149.

Unless Mr. Austin had been conducting clandestine surveillance with a high-powered telescope – a far-fetched scenario which Mr. Austin has never claimed -- he simply could not have personally observed the sampling of the Pit without Ms. Lohman seeing him there. Yet, he signed a sworn statement claiming that he personally observed the sampling.

It is not clear how he derived the alleged facts regarding the sampling set forth in his affidavit. A limited number of those facts appear to be accurate, and these may have been culled from discussions and correspondence between EPA and Chem-Solv about the sampling. However, many of his supposed observations are completely incorrect. For example, Mr. Austin claims that the Acid Pit, at the time of the sampling, "was not full of liquid," and consequently, the "level of the rinsewater in [the Pit] was approximately six feet below the top of the concrete wall." RX 2 at CS 004, ¶ 19. Since Mr. Austin agreed that the concrete wall was four feet high, RX 2 at CS 004, ¶ 18, he was in effect claiming that he observed the water level in the Pit to be two feet below the base of the wall. This claim is clearly disproved by the photo of the Pit taken by the EPA inspectors on that day, which shows the liquid reaching to the absolute top of the tank, nearly even with the bottom of the four-foot wall. CX 18 at EPA 358. Mr. Austin's sworn statement as to the level of water in the Pit is clearly erroneous, which raises serious doubts as to his credibility as a witness.

Mr. Austin's affidavit also claims that the sample of settled solids collected by the EPA inspector "was taken from the top few inches of solids." RX 2 at CS 005, ¶22. This claim is contradicted by the testimony of EPA's sampler, Mr. Houghton, whose testimony will be discussed in more detail later in this brief during the discussion of the sampling. From the standpoint of Mr. Austin's credibility, the more important point is that even if Mr. Austin were actually present, he could not possibly see beneath the water layer to determine how far down the EPA inspector's tool reached during the sampling event. Even if Mr. Austin was observing the events from a hidden location with a high-powered telescope, that would not help him see over the four-foot wall and down into the water. In order to do so, he would have had to have been right next to the tank, looking over the wall, in direct view of Ms. Lohman and the EPA inspectors. Even then, it is doubtful that he would be able to see through the murky water, as shown in the photo. *See*, CX 18 at EPA 358. As noted above, Ms. Lohman did *not* see Mr. Austin near the Pit at any time during the sampling, despite being present the entire time. It is thus difficult to attach any credibility whatsoever to Mr. Austin's claim to have personally observed the depth at which solids were sampled.

D. <u>Level of Solids in the Pit</u>

More than one of Respondents' arguments in this case have relied, in part, on the claim that there were only two feet of consolidated solids at the bottom of the Pit at the time of EPA's May 23, 2007 sampling inspection. In contrast, EPA's inspector testified that the solids layer began about a foot and a half below the surface of the water. Since the tank was about 7 feet deep, that would mean that there were more than five feet of solids in the Pit at the time of the sampling.

In an attempt to support his claim, Mr. Austin has pointed to evidence as to what was in the Pit when it was emptied in January and February of 2008. However, Mr. Austin's initial

description of the removal of solids from Pit, recorded in a sworn statement, appears to be completely inconsistent with his testimony on the same point at trial. In addition, testimony by Mr. Tickle as to the removal of two feet of sand from the bottom of the Pit is an indication that a *total* of more than six feet of solids was removed from the Pit in 2008.

In Mr. Austin's September 8, 2011 affidavit he stated that there was less than twenty-four inches of settled solids at the bottom of the Pit in January, 2008. RX2 at CS 005, ¶ 21. He explained this determination as follows:

> After the rinsewater was removed from Rinsewater Holding Tank No. 1, Chem-Solv used a backhoe to remove settled solids from the bottom of the tank. The depth of the settled solids that had collected at the bottom of Rinsewater Holding Tank No. 1 was determined by noting the level of the settled solids on the backhoe's bucket, which was twenty-four inches in height.

RX 2 at CS 005, ¶ 21.

However, Mr. Austin's hearing testimony regarding the exact same event appears to be completely inconsistent with the account in the affidavit:

> We first tried to remove the settled solids with a back hoe, and we were unsuccessful in doing that. *I think the machine was too large to manipulate a bucket down in the tank effectively* and we felt like there was a more efficient way to remove the solids by hand and so we started with a five-gallon pail attached to a rope. . . .So the guy down in the tank would scoop a five-gallon pail out and personnel up on the surface would rope the pail out and into a drum -- an open-head drum that was sitting adjacent to the tank area.

TR4 at 243-244 (emphasis added). Mr. Austin testified that this process yielded 32 drums of solids. TR4 at 244. *See, also*, CX23 at EPA 1083, 1127. Additional solids had earlier been removed from the Pit in June, 2007, CX 23 at EPA 1083; First Set of Stipulations, ¶ 28, which

accounts for the fact that 35 drums of Pit solids – 32 metal drums (DM) and 3 fiberboard or plastic drums (DF) -- were shipped off-site on February 20, 2008. CX 23 at EPA 1127.

The shipping manifest for the 35 drums of Pit solids shipped in February, 2008 shows a total of 35 drums, with a total weight of 17,500 pounds, CX 23 at EPA 1127, representing an average of 500 pounds per drum. *See, also,* First Set of Stipulations, ¶ 31. Mr. Austin testified that the drums were not completely full, TR4 at 242, which is probably true to some degree: if 32 completely full 55-gallon drums were removed from the tank in January, 2008, they would have contained 1,760 gallons of solids, or nearly as much as the entire capacity of the Pit. Although the drums may not have been completely full, it is reasonable to assume that Chem-Solv filled the drums as much as practicable, because their agreement with their disposal contractor was "on a dollars per container basis." TR4 at 242.[5] Mr. Perkins testified that he "heard reports that some of the drums were as low as one third full. Others were more full." TR4 at 10. As usual, Mr. Perkins does not identify the source of his information, so this testimony cannot be taken seriously, except to demonstrate that even Mr. Perkins cannot imagine Chem-Solv paying a fixed per-drum charge for a drum that is less than one-third full.

Given the per-container charge, it appears to be very conservative to assume that the drums were, on average, two-thirds full of Pit solids. This would still mean that the solids had filled nearly two-thirds of the depth of the tank, which was estimated to be about 7 feet. *See* TR3 at 129; CX 23 at EPA1083. It is thus a conservative inference to conclude, just by doing basic

[5] Mr. Austin also testified that the volume of the solids was increased because some of the concrete that was broken up in order to remove the Pit fell into the tank solids and was placed in the drums along with the solids. However, there would have been no need to break the concrete prior to removing the hazardous solids from the Pit, and it would have made absolutely no sense to have done so. Breaking the concrete into the still-full tank would have risked splattering the sludge-like solids, and allowing the broken pieces to fall into the sludge would have needlessly increased the volume of material which would have had to be disposed of as a hazardous waste. Further, safety considerations would require that the tank be stable and steady when workers entered the tank to remove the solids, so it would have been unsafe to break up the tank's concrete anchor prior to the workers entering the tank. Mr. Austin's claim that the concrete anchor was broken into the sludge prior to the sludge removal is so counter-intuitive that no credibility can be attached to such claim.

math, that the amount of solids removed from the Pit and placed into the 32 drums in January, 2008 would, by itself, fill the tank to a level of approximately 4½ feet.

In addition, an examination of Mr. Tickle's testimony indicates that the 32 drums of solids removed from the Pit in January, 2008 had to have been *in addition to* the two feet of solids which Mr. Tickle helped remove. Chem-Solv has repeatedly referred to the solids in the tank as "light" and claimed that the solids are easily conveyed in the liquid when they enter the Pit, and for some time thereafter. CX 23 at EPA 1081. This would indicate that the bulk of the solids, even when consolidated, would have consisted of relatively small, easily entrained particles, in contrast to a sedimentary material with large, heavy particles, such as sand. Mr. Tickle, however, unequivocally described the material he removed from the Pit as "sand." TR3 at 140. As anyone who has been to a beach can attest, sand has a relatively large particle size and is unlikely to be entrained in a liquid for any significant length of time. Based on Mr. Tickle's prior experience in a factory, he believed that the sand in the bottom of the Pit was of a type put into tanks "to hold them down," TR3 at 157 -- in effect as a type of ballast. Thus it appears that the sand was something distinct from the solids which settled out of the wastewater.

Moreover, Mr. Tickle's description of the removal of the sand at the bottom of the Pit differs significantly from the process of solids removal described in Mr. Austin's testimony.[6] Mr. Austin testified that someone in the Pit would "scoop a five-gallon pail out" of the Pit, the pail would be roped out, and emptied into an "open-head drum that was sitting adjacent to the tank area." TR4 at 243-244. Mr. Tickle, in contrast, described a process where the sand was "shoveled" out, TR3 at 140, and placed into a "hopper," TR3 at 150, which Mr. Tickle described as similar to a dumpster, TR3 at 154, about 3 feet tall by 12 feet long by 7 feet high. TR3 at 150.

[6] And, it should be noted, both witnesses hearing testimony differed completely from the removal by backhoe described by Mr. Austin in his September, 2011, affidavit.

When asked if the sand was placed in drums or only in the hopper, Mr. Tickle's unequivocal response was "In the hopper." TR3 at 150. He estimated that the depth of the sand before he removed it was about 2 feet. TR3 at 144.

There is no way that either Mr. Austin or Mr. Tickle could mistake 55 gallon drums for a 12 foot long hopper, or vice versa. It thus appears that Mr. Austin and Mr. Tickle were describing two different processes, i.e. two different phases of the removal of solids from the Pit. Chem-Solv stated in response to an EPA information request that the final removal of solids from the Pit occurred on three separate days: January 30, 31 and February 1, 2008. CX 23 at EPA 1083; First Set of Stipulations, ¶ 29. The two different operations described by Mr. Austin and Mr. Tickle could easily have occurred on separate days. When Mr. Tickle was done removing the sand, the tank was empty, so the removal of the sand must have occurred subsequent to the removal of the 32 drums of solids.

Thus, the solids in the Pit just prior to the removal included the solids that ended up in the 32 drums, *plus* the two foot depth of sand removed by Mr. Tickle. Given the estimate, discussed above, that the 32 drums contained solids which had filled 4½ feet of the Pit, the total level of solids in the Pit before the beginning of the two solids removal operations would have been approximately 6½ feet, which would nearly fill the 7 foot deep tank. This level would be consistent with the solids level estimated by Mr. Houghton, the EPA inspector who took samples from the Pit in May, 2007.

It is not clear what ultimately happened to the sand removed by Mr. Tickle. Chem-Solv claimed to have shipped all solids removed from the Pit in January and February 2008 as hazardous waste, CX 23 at EPA 1083, but the documentation produced by Chem-Solv shows only disposal of drums, and does not include any evidence that the hopper full of sand from the

bottom of the Pit was disposed of as a hazardous waste. CX 23 at EPA 1083, 1126 – 1137. Given the high levels of hazardous organic solvents in the Pit sludge, and the likelihood that these solvents had migrated to the lowest part of the Pit, the failure to dispose of the sand as a hazardous waste may have posed a very serious risk of environmental harm.

V. COUNT-BY-COUNT DISCUSSION

A. Count 1 - Storage of Hazardous Waste at the Facility Without a Permit, Interim Status or a Valid Exemption

Count 1 alleges that Respondents stored hazardous waste without a permit, interim status or a valid exemption from the permit requirement. This Count is based upon the storage of hazardous waste in three areas: (1) hazardous waste stored in the Acid Pit; (2) hazardous waste removed from the Acid Pit and stored in drums; and (3) hazardous waste consisting of one drum of discarded sodium hydrosulfide.

1. Storage of Hazardous Waste in the Acid Pit

EPA specifically alleges that: "[f]rom at least May 23, 2007 until February 20, 2008, Respondent Chemsolv stored Pit sludge . . . in the Pit . . . [and] shipped this Pit sludge off-site for disposal after storing it on site for 273 days. Complaint at 6, ¶ 31. Complainant further alleges that during such time period:

> Chemsolv stored hazardous waste in a tank located on Tax Parcel 4240104 of the Facility, identified by Respondent Chemsolv as the Pit, without a label or marked with the words 'Hazardous Waste'"; and
>
> Chemsolv did not inspect the Pit's (1) Discharge control equipment at least once each operating day; (2) Data gathered from monitoring equipment at least once each operating day; (3) the level of waste in the tank at least once each operating day; (4) the construction materials of the tank at least weekly; and (5) The construction materials of, and the area immediately surrounding, discharge confinement structures at least weekly.

Complaint at 6, ¶ 32 - 33. Complainant additionally alleges that Respondents: have never had a permit of interim status for the Facility pursuant to 40 C.F.R. Part 270 and RCRA Section

3005(a); engaged in the "storage" of hazardous wastes (in the Pit) at the Facility as that term os defined in 40 C.F.R. § 260.10; failed during such time period to qualify for the "less than 180 day" generator accumulation exemption of 40 C.F.R, § 262.34(d) with respect to the hazardous waste stored in the Pit by failing to satisfy the conditions for such exemption; and owned and operated a hazardous waste storage facility without a permit or interim status, in violation of 40 C.F.R. Part 270. Complaint at 6 - 7, ¶¶ 34 - 37.

Respondents deny all material allegations in the Complaint, with exceptions including the admissions that: "Chemsolv shipped certain settled solids that had been removed from the [Pit] off site for disposal on February 20, 2008;" "Respondents . . . have never had a permit or interim status for Chemsolv's chemical distribution business located in the City of Roanoke, Virginia." Answer at 4 – 5, ¶¶ 32 – 38 (quoting from ¶¶ 32 and 35).

a. Respondents Stored Characteristic Hazardous Waste in the Acid Pit

Complainant sampled and analyzed the material in the Acid Pit, and determined it to be characteristic hazardous waste for tetrachloroethene (D039, trichloroethene (D040) and chloroform (D022). In addition, given the high levels of the two organic solvents in the Pit, together with the nature of the business conducted at the Facility, it is apparent that the solvents entered the Pit as hazardous discarded commercial chemical products, listed under waste codes U210 and U228.

i. Sampling and Analysis of Material in the Acid Pit

EPA's sampling of the Acid Pit was conducted by now-retired EPA Inspector George Houghton, assisted by another inspector, Jose Reyna. Mr. Houghton was employed by EPA from 1971 through April, 2009 and was last employed in EPA's Office of Enforcement, Compliance and Environmental Justice, based in Ft. Meade, Maryland. TR1 at 192 – 193. During the 15-year period preceding his retirement, Mr. Houghton was employed as an inspector

and primarily performed compliance inspections under the RCRA, Asbestos and PCB Programs. TR1 at 194.

Mr. Houghton provided testimony relating to his RCRA sampling inspection at the Chem-Solv and Austin Holdings Facility located at 1111 and 1140 Industry Avenue in Roanoke Virginia on May 23, 2007. He testified as to being advised that proposed sample collection activities at the Facility would involve liquid and solid materials stored in totes and in a sub-surface Pit that would require volatile organic analysis and extractable organic analysis. TR1 at 200, 202.

Based upon the pre-inspection information provided to him, Mr. Houghton testified that he packed a variety of sampling equipment, including a device known as a "sludge scrape" for potential Pit solids sampling, and a "swing sampler"[7] to collect liquid samples. He identified and described a number of items, including tools, instruments, safety equipment, articles of apparel, and sample containers. TR1 at 203 – 205. The sample containers included specific containers for samples to be subject to "volatile organic analysis" or "VOA." The VOA sample containers he selected were "40 ml bottle[s] with a septa top" and that the "septa top is a lid which is essentially a 1 ring and inside the lid liner is a layer of Teflon and on top of that is a layer of silicon." TR1 at 204 -205. He also explained how he prepared a trip blank, documented its preparation and packed it on ice in a cooler, to "insure that we're not imparting any contamination during transportation of the samples." TR1 at 205.

Mr. Houghton testified that it wasn't until approximately 5:00 p.m. on May 23, 2007 that he, Mr. Reyna, Ms. Lohman and Mr. Lester began to make our way across the parking lot between the 1111 Industry Avenue portion of the Facility toward the 1140 Industry Ave portion

[7] Mr. Houghton briefly described the "swing sampler" as "a device that you can attach various size jars on the end to collect liquids." TR1 at 202-203.

of the Facility where the Pit was located.[8] Mr. Houghton first recalled stopping at the acid pad, or drum washing area, at the Facility. He specifically recalled that:

> That area . . . was covered. There were quite a few drums there. I noticed a couple workers in the area. The area was wet. It looked like they had been working there during the day. They departed shortly after . . . we got there.

TR1 at 216.

After taking photographs of the Pit and the acid pad area of the Facility[9] (CX 18 at EPA 358), Mr. Houghton testified that he proceeded over to the acid Pit itself and began preparing to sample at the Pit by "observing the pit to see what the pit consisted of, its size, dimensions, ease of access[,]" moving the vehicle closer to the sampling location and deciding "how to sample." TR1 at 217. Mr. Houghton described the photograph of the view inside the Pit that he during the inspection (CX 18 at EPA 358) as depicting "the walls . . . in the background with the door[,] . . . a PVC pipe extending in there, and . . . used, I understand . . . to remove a liquid fraction from the pit to another tank adjacent to the area[, and t]he liquid itself was brown in color, murky, had some floatable foam type material on the top." TR1 at 256.

Mr. Houghton testified that he had not previously put together any type of formal plan as to how he was going to go about sampling at the Pit on May 23, 2007 because "[t]he information [he] had was limited," and that, based on experience, he was well aware of the sampling equipment that he had available to properly conduct required sampling. TR1 at 219. Upon observing the Pit and the Pit area, Mr. Houghton testified that he "determined that the best thing

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[8] Mr. Houghton noted that VADEQ inspector Kim Thompson had to leave the Facility at that time and did not participate in the remained of the inspection activities conducted on that date. He also recounted briefly meeting one of the Facility owners, either Glen or Jamison Austin, but noted that this individual returned to his car and drove away from the Facility after only a brief conversation with him and Mr. Lester.

[9] *See* CX 18 at EPA 358, 359; *see also* TR1 at 255, 256.

to do was to sample the liquid first and the sludge second." TR1 at 217. He further testified that it was routine practice to sample liquids first because "[i]f you sample the sludge first, of course, it would stir the sludges up and might affect the liquid sample itself." TR1 at 219. He decided which equipment he would use to collect Pit water samples '[u]pon observing the pit itself." TR1 at 219. Based upon those observations, he decided to use a swing sampler, a device with a gimbaled handle and a telescoping pole to which a quart jar, or any size jar, can be attached, to collect water samples from the Pit. TR1 at 217 – 218. He further testified that, based upon his observations, he determined that another piece of equipment, called a "COLIWASA," would be "an inappropriate piece of equipment" to collect water samples from the Pit because:

> The COLIWASAs are only 3 to 4 feet tall. The [P]it . . . had almost a 4 foot wall around it, although it did have a doorway to get inside the pit, I was not going to enter the pit area to take a sample. It would be too dangerous. So the swing sampler was the most appropriate thing I had with me to do that sampling.

TR1 at 220. He further testified that in selecting a swing sampler as his choice of equipment, and recognizing that a swing sampler with an attached jar could not be employed to collect liquid samples at depth, he did not, in this instance have concerns that the samples he planned to collect from the Pit might not be representative of the depth of the water layer or layers in the pit. TR1 at 220. In support of that conclusion, he testified that:

> Based on my initial observations of people working in the area, I was under the impression that the [P]it was in use and the water was fresh or new and had been stirred up to the point where it wouldn't make that much difference. I figured it was pretty representative whatever type of sample we took for the liquid.

TR1 at 220 – 221.

Mr. Houghton initially retrieved a swing sampler and a number of different containers appropriate to the type of analysis to be performed on the water --- "in this case it was VOA bottles, the 40 mL bottles and the 1 liter, or quart, amber jars." TR1 at 217 – 218. He testified that all of the sample collection jars used at the Chem-Solv Facility that day for the Pit water and Pit sludge collection activities were "pre-cleaned" before purchase and new out of the box. TR1 at 223, 234 – 235. He also testified that "only very small portion of the swing sampler telescoping pole actually goes into the water during sampling and "[t]hat portion is decontaminated back at the office before we go out. We usually scrub that with soap and water and rinse it with the pure water and air-dry it." TR1 at 223. Mr. Houghton explained how he labeled the bottles with a specific designation ("P-I-T") on the top of each jar using a waterproof marker and transported them to the Pit area. TR1 at 220. He testified that the water sample collection activities performed at the Pit using the swing sampler were a joint effort and that he and Mr. Reyna "both dipped the samples and poured the samples into the VOA bottles and into the quart jars." TR1 at 221. Mr. Houghton also explained that this was a carefully executed task, noting that the water sampling effort was concerned with identifying potential volatile organic compounds ("VOAs") and that:

> The VOA sampling, because you're looking for volatile organics, you do not want to disturb the water very much or you might lose some of any potential volatile organics in there, so you gently lower the bottle into the water using the swing sampler and hold the bottle at a 45- or 30-degree angle, pour the water in very slowly, and slowly rotating the bottle to a vertical position, cap it. After that, you check to make sure that there are minimal or no bubbles inside of the container.

TR1 at 221.

Mr. Houghton explained that he and Mr. Reyna took water samples from the Pit by dipping the quart bottle on the swing sampler was "at a different location" in the Pit. TR1 at 222. He also explained that the Pit water samples he and Mr. Reyna collected were collected at the surface of the water in the Pit and that the sample collection jar attached to the swing sampler was "not submerged", but placed "on the surface so the water would flow into the jar." TR1 at 264. Pit water samples were not collected from beneath the surface of the water. TR1 at 264.

To perform the anticipated sludge sampling in the Pit, Mr. Houghton selected a "sludge scrape", or "scrape sampler", a stainless steel mixing pan and appropriate containers, including amber quart and amber wide-mouthed 5 ounce jars. TR1 at 229 – 230. Mr. Houghton described the sludge scrape as a receiver to which receiving poles may be attached. TR1 at 218. He noted that each pole attachment "is approximately 6 feet in length, and we used two lengths in this particular sample" and identified pictures of this sampling equipment. TR1 at 218, 227 – 229. CX 65 at EPA 1814 - 1818. He also testified that both the scrape sampler and the stainless steel pan were decontaminated prior to transport by being washed with warm, soapy water with laboratory grade soap at the laboratory and rinsed with laboratory pure water and then covered and wrapped in aluminum foil for transport. TR1 at 229, 230. He further testified that once the aluminum wrap was taken off of the scrape sampler, just prior to sampling at the Facility, he "used laboratory purified water to rinse that sampler again." TR1 at 229. In addition, Mr. Houghton collected that rinse water so that it could be "analyzed for the same parameters that the pit sludge was going to be analyzed for" in order to "ensure that there's no residual contamination that would cause a problem." TR1 at 229. Mr. Houghton explained that such collected rinsewater is referred to as an "equipment blank". TR1 at 229.

To prepare for the actual sampling of the solids, or sludge, in the Pit, Mr. Houghton explained that he and Mr. Reyna attached two six foot pole sections to the sludge scrape, “made sure that our safety equipment was in good condition . . . labeled them with the appropriate, I chose "PS", so that we could distinguish those from the other samples that we took previously, labeled that with a waterproof marker on the lids and staged the jars adjacent to the pit for filling.” TR1 at 218, 230. Mr. Houghton also readied the stainless steel pan to be used to hold the collected solids to be retrieved from multiple dips into the Pit and to “gently massage the waste into one batch” from which he would then fill each sample collection jar. TR1 at 218, 230 – 231.

In collecting the actual Pit sludge samples, Mr. Houghton explained that “after attaching the handles and doing the equipment blank” he and Mr. Reyna took turns “extending the sludge scrape to the far end of the pit” and down into the water until we felt resistance[.]” TR1 at 231. He explained that once the “resistance was such [that he or Mr. Reyna] couldn't penetrate any further”, they then pulled the sludge scrape backward “in an arcing motion and pulled it vertically up.” TR1 at 231. After decanting any collected water off the top of the scrape sampler, Mr. Houghton explained that they then held the scrape sampler “over the pan” and “used a wooden tongue depressor to put that solid into the pan”. TR1 at 231. Mr. Houghton estimated that he was able to insert the scrape sampler “a little bit more than a foot” beneath the water in the Pit before beginning to encounter resistance and that he was only able to penetrate and physically insert the sludge scrape and attached pole “no more than two feet or so below the surface” before encountering “too much resistance” to penetrate any deeper into the Pit, despite making physical efforts to penetrate further. TR1 at 231 – 232. Mr. Houghton further testified that the solids samples collected from within the Pit were collected from “a different area of the

[P]it" and that he and Mr. Reyna collected the Pit sludge samples by dipping the scrape sampler into the Pit "a number of times – 6 to 10 times, maybe." TR1 at 233.

Once all of the collected samples had been placed into the stainless pan and gently mixed, Mr. Houghton explained that the collected material was placed into sample collection jars. TR1 at 233. He testified that the smaller 5 ounce containers were "filled all the way to the surface and capped" and when all of the sample collection jars had been filled and sealed in that manner, he placed them into the cooler in the back of his vehicle. TR1 at 234.

Mr. Houghton testified that once his sampling activities were complete, he and Mr. Reyna "[gathered the equipment[, d]id some field decontamination of the equipment using our wash water[,]" placed the equipment in bags and placed everything into his vehicle. TR1 at 235.[10] He testified that he inventoried the sample jars collected after bringing them to his van and packing them on ice in the cooler and that he made "a listing of the inventory that [he] took."[11] TR1 at 236, 237. He recalled leaving the Chem-Solv Facility that evening of May 23, 2007 at "about 7:00 at night" and testified that he spent the night in a local Roanoke, Virginia hotel before his planned trip back to Ft. Meade, Maryland the following morning.

Mr. Houghton explained that the samples that he and Mr. Reyna had collected at the Chem-Solv Facility on remained locked in his van, inside of the cooler and packed on ice during the evening of May 23, 2007, that he checked on them "first thing in the morning" to "ensure

[10] Mr. Houghton testified that he did not recall Mr. Lester asking him for any split or duplicate samples and that he certainly would have provided them if requested, as this was his typical practice. TR1 at 236.

[11] Mr. Houghton additionally identified one inaccuracy in that listing, pertaining to his entry of "6 VOAs" on that inventory listing. TR1 at 237 – 238. He explained that error by noting that he had double-counted in the inventory of "equipment blank" VOA jars the three VOA jars containing the "trip blank" that he had prepared that morning before leaving his offices and had already recorded from memory as the first entry on the inventory listing. As a result, he mistakenly listed "6 VOAs" of "equipment blank" VOA jars when he actually only collected three "equipment blank" samples in as many VOA jars. TR1 at 237 – 239. CX 23 at EPA 1222.

there was enough ice to keep them cool for the trip back" and that he found them "still there" and that he "didn't see any tampering[.]" TR1 at 239 -240. He also related how he made out the permanent sample tags for each individual container and the chain of custody form, or sheet, during the trip back to Ft. Meade that morning of May 24, 2007, transferring the sample collection "times and the dates and the station locations"to each of the sample tags from the information in his field notes. TR1 at 225, 240. Mr. Houghton also explained that the permanent samples tags that he used were "preprinted, and they ha[d] spaces for the name of the sampler, the witness of the sampler, the time, the date, the project, it has a list of parameters, standard parameters, it also has blank spots for unusual parameters, composite sample, grab sample." TR1 at 225. He also testified that he included all that information in each of the permanent sample he prepared for the jars of sample material that he collected in the pit at the Chemsolv Facility May 23, 2007 and that, once each permanent sample tag was prepared, it was "affixed to each individual container." TR1 at 225.

Mr. Houghton identified and reviewed the chain of custody form that he prepared. TR1 at 240 – 247. CX 15 at EPA 244. He testified that the only thing different about this particular copy of his chain of custody form from when he last had it in his possession was "that the laboratory had written their identification numbers on each slide that corresponds with the samples taken" and that he noticed four such laboratory I.D. numbers, "07050301 through 4" TR1 at 241. He also testified that it was otherwise a true and accurate copy of the of the chain of custody form that he ultimately signed, dated and provided to the and provided to the EPA Analytical Services and Quality Assurance branch lab at Fort Meade on May 24, 2007. TR1 at 247. He explained that the chain of custody form that he prepared contained rows of relevant information including, for each type of sample, each individual location (or station number), the

sample identification, the "month and date", the time, the type of sample collected, the type of analysis sought, the number of sample containers collected, their assigned sample numbers and the tags that he used. TR1 at 241 – 244. CX 15 at EPA 244.

Mr. Houghton testified that upon arriving back at Fort Meade, Maryland with the collected samples on May 24, 2007, he unpacked the samples, permanently labeled each of the of the sample jars with the permanent labels that he had prepared, put them on a cart, contacted the EPA sample custodian, met him in the sample receiving room and he logged them into the lab, noting the time and date. TR1 at 244 – 245. Mr. Houghton also explained that the EPA lab at Fort Meade is in the same building as the vehicle garage where he had to return his van and that the lab is right down the hallway from, and "very close" to, the vehicle receiving area. TR1 at 245. He testified that he executed and dated the sample chain of custody form that he had prepared for the collected samples by signing his name on the form in the presence of Mr. Turner, the lab's sample custodian, doing so right in the lab. TR1 at 245. He explained that that act signified that he has relinquishing the samples to Mr. Turner, who also then signed and dated the sample chain of custody form and wrote down the time, which was 14:00 hours on May 24, 2007. TR1 at 245 – 246.

Mr. Houghton stated that when he originally made the arrangements with the EPA laboratory in Ft. Meade to do the sampling of the materials collected during the Chem-Solv Facility inspection, he communicated to the lab the various series of analysis to be performed, which information he also included on the subsequent sample chain of custody form. TR1 at 246. CX 15 at EPA 244. He reiterated that those instructions were for TCLP volatiles and TCLP extractables analysis to be performed on the Pit water samples and for the same types of analyses to be performed on the Pit solids samples. TR1 at 246. CX 15 at EPA 244.

Peggy Zawodny, an EPA environmental scientist and lab analyst, testified to the procedures once Mr. Houghton transferred the samples to the Fort Meade laboratory. Ms. Zawodny is an experienced and highly qualified lab analyst at the Fort Meade lab. *See*, TR 2 at 4-6. M. Houghton's samples were placed in a "secure holding" area, and she was notified that the samples were there for her to analyze. TR2 at 10-11. Another analyst would also have access to the secure area, but, under the lab's procedure, an analyst would only remove samples assigned to her. TR2 at 11.

When Ms. Zawodny removed sample containers from the secure area, she would carefully examine the containers for any signs of leakage or any other problems. TR2 at 14-15. For the type of sample at issue in this case – samples to be tested for volatile organics – the containers would be "overpacked into the sample such that when the lid is applied it excludes any headspace or any air that's over the sample." TR2 at 14. The pressure in an overfilled container would actually make the plastic "septa" or seal on the container bulge up slightly. If Ms. Zawodny examined such a sample and the pressure were released, she "would consider that a compromised sample and put it aside and take another container." TR2 at 15.

The initial analysis Ms. Zawodny performed for volatile organics was an analysis of the total amount of such compounds in the raw sample. TR2 at 15-16. The analysis was made using the purge and trap gas chromatography/mass spectrometry analytic method, a common method accepted in the field. TR2 at 15, 21. The analysis of the raw sample was run as a screening to determine if it there was sufficient hazardous constituents present in the raw sample to make it worthwhile to run the sample through the "lengthy and labor intensive" TCLP extraction process required by the RCRA regulations. TR2 at 15. This screening step is a common sense measure. If the raw sample contains no hazardous constituents, or hazardous constituents at levels that are

already below the regulated levels for TLCP-extracted samples, then there would be no reason to waste the time, labor and expense to do a TCLP extraction, which could only reduce the level of any hazardous constituent in the sample.

Ms. Zawodny's initial analysis detected a number of volatile organic compounds which were on the RCRA TCLP list, including three compounds in sufficient quantities such that they might test above regulated limits even after undergoing a TCLP extraction. TR2 at 17-20. These compounds included chloroform found in the Pit water sample and tetrachloroethene and trichoroethene detected in the Pit solids sample. TR2 at 17-20.

Following standard procedure, after the completion of her analysis her results are passed on to a second chemist, who independently reviews all the information, and then reviewed by the laboratory manager before the report is finalized. TR2 at 22.

After report of testing on the raw sample, it would be the inspector or program client who makes the decision as to whether or not to proceed with a TCLP analysis. TR2 at 29-30. In this case she does not recall who gave that authorization, but she would not have gone forward in the absence of a request to do so. TR2 at 30. At this point she prepares another vial of the sample using the "toxicity characteristics leaching procedure" or "TCLP" method. TR2 at 31. This method is designed to simulate the effect of water moving through a landfill, to determine if there is a risk that a significant amount of the hazardous constituent at issue will leach out of the landfill and potentially reach receptors. TR2 at 30.

Following the application of the TCLP procedure to the Chem-Solv samples, Ms. Zawodny analyzed the prepared sample. The analysis showed the presence of chloroform in the Pit water TCLP-prepared sample at 6.1 mg/L, exceeding the regulatory limit of 6.1 mg/L. TR2 at 33; CX 16 at EPA 285; 40 C.F.R. § 261.24. In the Pit solids TCLP-prepared sample,

tetrachlorethene was present at 457 mg/L, exceeding the regulatory limit of 0.7 mg/L, while trichloroethene was present at 16 mg/L, exceeding the regulatory limit of 0.5 mg/L. TR2 at 33; CX 16 at EPA 285; 40 C.F.R. § 261.24.

ii. Representative Sampling

At the hearing Respondents expended considerable efforts attempting to argue that the sampling methods used by the EPA inspectors did not result in a "representative sample." Pursuant to 40 C.F.R. §261.24, a solid waste is a hazardous waste if a "representative sample of the waste" which has been processed using the TCLP procedure contains any of the contaminants listed in the table in the regulation at levels equal to or exceeding the value listed in the table. "Representative sample" is defined in 40 C.F.R. §262.10 as "a sample of a universe or whole (e.g., waste pile, lagoon, ground water) which can be expected to exhibit the average properties of the universe or whole."

It is important to point out that the definition of "representative sample" does not specify that a sample is only representative if it exhibits the exact average concentration of each hazardous constituent. The definition instead speaks of exhibiting the average "properties" of the whole. In this case the "property" which the samples must exhibit to the representative degree is the property of toxicity under 40 C.F.R. § 261.24. The definition does not state that a representative sample must be shown statistically to exhibit the exact same level of a given toxic contaminant as the whole.

As explained by Joe Lowry, Complainant's expert witness, any time one takes a sample one is going to have to use that portion of the whole to make an inference to the whole. TR2 at 81-82. Since EPA did not specify an exact, regulatory-required protocol for taking a representative sample, one has to interpret the requirement of a representative sample as one would in the "science world," where a representative sample would be a sample sufficient to

answer question posed." TR2 at 82, 95. In this instance, the question posed is whether the average of the whole contains leachable hazardous constituents in excess of the regulatory limits. So, for example, the sample EPA took from the Pit sludge is sufficiently representative to determine if the sludge is hazardous for perchloroethylene (another name for tetracholorethylene, TR2 at 77; TR4 at 232) if the sample is "sufficient to answer the question is the average value over .7?" TR2 at 95.

In other words, the Pit sludge sample taken by EPA in this case is a representative sample for tetrachloroethene and trichloroethelene if one can conclude from the sample result that the average property of the Pit sludge is that it exhibits the characteristic of toxicity for tetrachloroethene and trichloroethelene. There is no need to show with statistical certainty that the level of tetrachloroethene and trichloroethelene in the sample is the exact same as the average level of the contaminants in the whole. Similarly, the Pit water sample is a representative sample for chloroform if one can conclude from the sample result that the average property of the Pit water is that it exhibits the characteristic of toxicity for chloroform.

Respondents spent a considerable amount of time at the hearing attempting to demonstrate that EPA's inspectors did not follow all of the many procedures suggested in EPA's various non-mandatory sampling guidance documents. Respondents appear to be arguing that EPA's samples and the analysis of the samples should be completely ignored simply because of differences between the inspectors' sampling procedures and the some of the suggestions in some of the guidance documents. Such an argument evades the ultimate issue, which is whether the methods used resulted in a reliable conclusion as to whether or not the Pit contained hazardous waste.

As is usual with most regulatory inspections, EPA's inspectors arrived at the site knowing very little about the exact conditions and issues they would face in obtaining samples. While Mr. Houghton, the lead EPA inspector, could have been more careful and thorough in creating contemporaneous documentation of his sampling activities, he nonetheless provided testimony at the hearing detailing his sampling activities. He faced a number of specific difficulties and hazards, and made a number of decisions designed to get the best samples he could under the circumstances. Some of his decisions may not have been the only decision he could have made, and there may have been other procedures he could have followed which would have worked as well or better than some of the procedures he used.[12] However, none of the alleged flaws in his sampling procedures detract from the ultimate reliability of the results obtained and the conclusions drawn from those results.

(a) Pit Sludge

With regard to the Pit solids sampling performed by Mr. Houghton and the other EPA inspector, Jose Reyna, the representativeness of the sampling is not even a close call. As discussed above, Mr. Houghton and Mr. Reyna used a device, referred to as a "tank scrape" or "tank scraper," which consisted of a long pole with a 10-12 inch wide bucket on the end, with teeth in front. TR1 at 226; CX 65 at 1814. The inspectors extended the scraper into the Pit, feeling resistance after about a foot or maybe a bit more than a foot, indicating the beginning of the sludge layer. TR1 at 231. After extending the scraper approximately another foot down into the sludge, the resistance was so great that the inspectors could not push any further into the Pit.

[12] On the other hand, Respondents' cross-examination appeared to suggest that Mr. Houghton could and should have used methods which, while recommended in some of the guidance documents, would have been affirmatively improper under the conditions presented. For example, Mr. Weigard suggested on cross-examination that Mr. Houghton could have used a "bacon bomb" to obtain samples from different levels within the sludge layer in the Pit. TR1 at 266. A bacon bomb consists of a closed container lowered into a tank on a string and opened up to collect a sample at the desired level. TR2 at 87. Mr. Weigard's suggestion was thus ridiculous; it would make no sense to attempt to lower a bacon bomb on a string into the dense consolidated sludge layer encountered by Mr. Houghton. *See,* TR2 at 87-88.

TR1 at 232. They took several "dips," each from a different area of the Pit. TR1 at 233. All of the material retrieved from the multiple dips was placed in a stainless steel pan, where it was massaged into one batch before being placed into containers. TR1 at 231.

The compositing of samples from different locations in the Pit provided a significant degree of horizontal coverage. TR1 at 90-91. The inspectors' inability to penetrate the sludge beyond approximately two feet did mean that the vertical coverage was limited. However, that unavoidable flaw is ultimately not important for two reasons: (1) the two hazardous contaminants found at regulated levels in the Pit sludge would be expected be found at the same or greater concentrations at lower levels in the tank; and (2) the concentration of each of the two contaminants at issue was so high that additional sampling could not have demonstrated average concentrations that were below the regulated levels.

Dr. Lowry explained that the total concentration of tetrachloroethene in the Pit sludge, approximately 1.6 %, means that the contaminant was past its solubility in the sludge layer, and some would thus exist in droplets. TR2 at 95-96. Because tetrachloroethene is denser than water, it is going to settle to the bottom: "there would be more . . . the lower you went in the tank because the droplets would work their way down to the bottom of the tank." TR2 at 96.

The other contaminant, trichlorethene, was found at a level which did not quite exceed its solubility limit; since the trichlorethene was fully dissolved, the concentration would not be likely to be found in varying layers. TR2 at 98. The only possible exception to this would be if some of the trichlorethene was dissolved in the tetrachloroethene droplets, in which case it would sink with the droplets and be found at higher levels further down in the tank.

In sum, the samples taken from the Pit sludge provided a good degree of horizontal coverage, and, due to the nature of the contaminants, the lack of extensive vertical coverage

would either have no impact on the result or would cause the result to be biased low. There are thus a number of factors tending to show sufficient representativeness even *prior* to examining the contaminant levels found in the laboratory testing.

In fact, the levels of contaminants found in the lab turned out to be extremely high. After running the samples through the TCLP process, Ms. Zawodny's analysis showed 457 mg/L of tetrachloroethene remaining in the leachate, and 16 mg/L of trichloroethene. The regulatory limits for these hazardous constituents after TCLP preparation are 0.7 mg/L for tetrachloroethene and 0.5 mg/L for trichloroethene. Tetrachloroethene was thus present at approximately 653 times the regulatory limit, and trichloroethene at 32 times the regulatory limit.

Given these extremely high levels of hazardous constituents, there is essentially no possibility that additional sampling of the Pit sludge could establish that the sludge is not hazardous for both tetrachloroethene and trichloroethene. One would need to take 652 additional samples of the sludge, and have each sample show zero tetrachloroethene, in order for the average level in the sludge to be less than the regulatory limit. For trichloroethene, one would need to take 31 additional zero-concentration samples in order to average below the regulatory limit. There is thus no reasonable likelihood that additional sampling would alter the conclusion that the Pit sludge is a hazardous waste. TR2 at EPA 94-95, 97-98.

Chem-Solv's own analysis of the Pit sludge also showed very high concentrations of tetrachloroethene and trichlooethene. EPA contacted the disposal facility where Chem-Solv sent the 32 drums of sludge removed from the Pit in January, 2008 and the 3 drums of sludge removed in June, 2007. TR3 at 97-99; CX 63. The laboratory report EPA obtained from the disposal facility showed analysis, undertaken by ProChem, Inc. on behalf of Chem-Solv, of a sample of "pit sand sludge" collected on January 24, 2008. CX 63 at EPA 1797-1801.

ProChem's analysis showed significant concentrations of a number of volatile organic compounds, many of which were also identified in EPA's lab report, including high concentrations of tetrachloroethene and trichloroethene. CX 63 at EPA 1799. Although the raw concentrations shown in the ProChem analysis are lower than those in the samples taken by EPA, the ProChem samples were taken many months later, so there may have been volatilization loss, particularly since the documentation provides no information as to where or how the samples were obtained and what measures, if any, were taken to minimize the loss of volatiles during the collection and transportation of the samples. Nonetheless, these samples and analysis, commissioned by Chem-Solv, showed raw levels of tetrachloroethene and tricoloroethene that were so far above the regulatory limit that they would be expected to show regulated concentrations had Chem-Solv requested a TCLP analysis of the samples. TR2 at 105-106. Chem-Solv apparently was convinced that further analysis was not necessary, and sent the Pit sludge off as hazardous waste. CX 23 at EPA 1127.

(b) Pit Water

The Pit water sampling and analysis result is admittedly a closer call. The regulatory standard for chloroform is 6 mg/L, and the chloroform found in EPA's sample was determined to contain 6.1 mg/L, so the level of chloroform is not overwhelming evidence of the representativeness of the sample, as was the case with the super-high levels of tetrachloroethene and trichloroethene found in the Pit sludge. Nonetheless, the evidence supports a finding that the Pit water sample was sufficiently representative to conclude that the Pit water was itself a hazardous waste.[13]

[13] It should be pointed out that the question of whether or not the Pit water is a hazardous waste actually has no impact on Respondents' liability for the alleged violations. Given the extremely strong evidence that the Pit sludge was a hazardous waste, and the evidence, discussed below, that the Pit contained hazardous discarded chemical products, Complainant can establish that the Pit was a RCRA-regulated unit containing hazardous waste regardless

The chloroform dissolved in the water would be expected to diffuse, which would "more or less make everything the same concentration." TR2 at 102. The only exception to this would be that samples taken at the surface of the water – as were Mr. Houghton's water samples – might have a slightly *lower* concentration than samples taken further below the surface, due to the active volatilization occurring at the interface between the water and the air. TR2 at 101. Although Respondents posited on several occasions that there could have been separate phases within the water layer, Dr. Lowry testified that there was no reason why this should occur, other than the thin emulsion layer observed at the surface (which would have been incorporated into the surface samples taken by Mr. Houghton). TR2 at 102. Respondents' lawyers posited that separate phases could have existed, but they put on no evidence of a scientific basis to rebut D. Lowry's opinion that there would not be.

There was some discussion about the potential "margin of error" of the instrumentation used to analyze the water samples. TR2 at 56-57, 124. However, there is no dispute as to the appropriateness of the purge and trap gas chromatography/mass spectrometry analytic method used by Ms. Zawodny, and she determined that the instrumentation was operating within the accepted parameters for that instrumentation. TR2 at 56-57. Thus the analytic result of 6.1 mg/L is a presumptively acceptable result. In fact, Ms. Zawodny's report contains a qualifier: due to issues in reading the results in a proper scale, the reported results are assumed to be low, meaning that "the actual value are expected to be higher." CX 16 at EPA 285. *See, also*, TR2 at 27, 32.

In fact, the concentration of chloroform *at the relevant time* is likely to have been considerably higher than the 6.1 Mg/L lab result. At the time of the EPA sampling, the Pit was completely full, and it was clear that the water in the Pit had been in the Pit for a long time.

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of whether or not the Pit water was by itself a hazardous waste.

EPA's inspectors could not time-travel, so they had no choice but to sample the water as it was when they arrived at the Pit. However, had Chem-Solv attempted to do a valid waste determination of the Pit water,[14] the appropriate time to sample the water would have been when it first entered the Pit, instead of waiting until volatile hazardous constituents such as chloroform had had days, weeks, or months to volatilize and be lost to the atmosphere. EPA's analytic result, therefore, is a result that cannot fail to understate the concentration of leachable chloroform in the waste as it entered the Pit. As such, it is strong evidence that the waste, if sampled at the relevant time, would have contained chloroform at greater than the regulated concentration.

(c) Proving the Positive

On direct examination Dr. Lowry explained that it often requires less sampling to prove that something is a hazardous waste than it does to prove that it is not a hazardous waste. TR2 at 77-81. Respondents' lawyer spent quite a bit of time on cross-examination of sparring with Dr. Lowry with regard to this assertion, but the cross-examination appeared to miss the point. It is important for the Court to understand that Dr. Lowry's assertion was not the result of an EPA policy on "proving the positive," but was instead merely a common sense application of scientific principles.

As Dr. Lowry explained, a single sample may, under some circumstances be proof that a waste is hazardous even if the sample did not provide full coverage of the waste vessel. TR2 at 78. As an example, Dr. Lowry referred to situation that applied to the Pit sludge sampling in this case: "they can go get one sample; and if it's way over the limit, then you know that the whole waste is over as well." This is merely the result of the sound science which Dr. Lowry applied in

[14] VADEQ in fact asked Chem-Solv repeatedly to provide analytic results for the Pit water, but Chem-Solv never provided any analysis. TR-1 at 26-27, 56-58, 65-66, 73-76; CX 39 at EPA 1482, ¶ 2.b.; CX 40 at EPA 1509, ¶ 2.

this case: if a sample shows concentrations at many multiples greater than the regulated levels, a single sample may be definitive because it becomes highly unlikely that additional samples, even at a zero concentration, could reduce the average concentration below the regulated limits.

At the other end of the spectrum, if a single sample shows concentrations *below* the regulated limits, there would likely still be a need for more samples to be taken before one could reasonably conclude that the waste as a whole is not hazardous. For example, Dr. Lowry offers the example of a situation where a sample of Pit sludge was taken in the manner employed by Mr. Houghton in this case, but the analysis showed tetrachloroethene at just below regulated levels. TR2 at 78-79. Since the tetrachloroethene was likely to sink to the bottom, a single sample under those circumstances would not be conclusive if it did not reach to the bottom, and more sampling would thus be required before one could reasonably conclude that the waste was not hazardous for tetrachloroethene. TR2 at 78-79.

Regardless of whether one is trying to prove the positive or the negative, the properties of the contaminant and the matrix would have to be taken into account. Thus, in this case Dr. Lowry rightly considered things like the densities, solubility and volubility of the contaminants, and the likelihood of diffusion, and these concepts should be considered regardless of whether the sample is posited to prove the positive or the negative. For example, if there is very strong reason to believe that complete diffusion would occur, than one might be able to prove that a waste is *not* hazardous solely based on a single sample.

In most instances, however, proving that something is not a hazardous waste will take multiple samples in order to exclude the possibility that an initial sample was not representative. This is particularly so when a waste generator is trying to show that a variable waste is *never* hazardous. Unless the generator can make a scientifically valid generator knowledge

determination taking into consideration all of the potential variability, it will nearly always be necessary to take a large number of samples over time before one can conclude that a variable waste is never hazardous.

Even where one is showing that a waste *is* hazardous, multiple samples may sometimes be necessary, such as when a sampling result is limited in time frame. For example, in this case Complainant did not allege that the Pit held hazardous waste prior to the day on which EPA's samples were collected. It is certainly possible, perhaps even likely, that the high concentration of hazardous constituents in the water actually started prior to the date of the EPA sampling, but the waste stream in question is clearly variable, and thus it possible that the high levels of hazardous constituents first occurred on the day of the sampling. With this type of variable waste stream, multiple samples would be necessary before one could conclude that a waste is *always* hazardous.

Despite this exception, the general rule is as Dr. Lowry described: extensive sampling is more likely to be necessary when one is trying to prove that a waste is *not* hazardous. Contrary to the insinuations of Respondents' counsel, Dr. Lowry's statements to this effect are not the result of some insidious EPA policy to stack the deck in favor of EPA's enforcers, but are instead merely an application of scientific common sense.

(d) Guidance Documents

As noted above, Respondents, rather than addressing the strong evidence as to the levels of hazardous constituents in the Pit, instead attempted to convince the Court that Complainant's evidence should be completely ignored because EPA's inspector did not follow all of the non-mandatory suggestions in various guidance documents.

The guidance documents on which Respondents rely are clearly non-mandatory. The introduction to SW-846 includes a section entitled "Disclaimer" which states that "[e]xcept where explicitly specified in a regulation, the use of SW-846 methods is not mandatory in response to Federal testing requirements." Dr. Lowry confirmed that SW-846 was not required. TR2 at 126-127, 136. Nor is SW-846 or any other sampling methods "explicitly specified: to be mandatory. 40 C.F.R. § 261.20(c) states that "the Administrator will consider a sample obtained using any of the methods specified in appendix I [to 40 C.F.R. Part 261] to be a representative sample within the meaning of part 260 of this chapter." This language does not in any way require the use of the specified methods, but is instead the "safe harbor" provision mentioned by Dr. Lowry: the methods listed in appendix I are not required, but if a regulated entity follows such a method then EPA will consider the sampling to be representative regardless of whether or not such sampling could be considered representative in the scientific sense. TR2 at 74, 218-219. Allowing a regulated entity to rely on the specified methods does not in any way imply that those methods are exclusive.

Further, where specific methods are required under the RCRA regulations, there are procedures, set forth in 40 C.F.R. §§ 260.20 and 260.21, for petitioning for the acceptance of an equivalent method. The comment inserted into 40 C.F.R. § 261.20(c) makes it explicit that such procedures are unnecessary with regard to the methods specified in appendix I because such methods are not required: "Since the appendix I sampling methods are not being formally adopted by the Administrator, a person who desires to employ an alternative sampling method is not required to demonstrate the equivalency of his method under the procedures set forth in §§ 260.20 and 260.21."

Respondents also attempted to show discrepancies between what Mr. Houghton did and a 1994 tank sampling document which appears to have been prepared by the EPA Environmental Response Team, an EPA unit which assists EPA on-scene coordinators in dealing with emergency removals. RX 24 at CS 242. It is not clear if this document in currently in effect, because Respondents laid no foundation for it. Whether it is current or not, it would not apply to Mr. Houghton, who was not an on-scene coordinator and was not part of the Environmental Response Team. Further, the document itself states that the procedures "may be varied or changed as required, dependent on site conditions, equipment limitations or limitations imposed by the procedures or other procedure limitations." RX 24 at CS 242.

Complainant does not dispute that Mr. Houghton failed to follow all of the recommendations in EPA's various guidance documents. However, Respondents' focus is merely a distraction from the real issue, which is whether the procedures Mr. Houghton used in sampling the Pit were sufficiently reliable and representative to answer the question the sampling was intended to answer: did the Pit contain toxic hazardous constituents at concentrations exceeding regulated levels. As discussed above, EPA's expert witness answered this question in the affirmative, and explained the scientific reasons for this opinion. In response, Respondents' expert, Scott Perkins, presented no scientific evidence, and relied solely on Mr. Houghton's deviations from what Mr. Perkins considered to be proper protocol.

(e) Respondents' Reliance on the 2006 Sampling and Analysis

While attacking EPA's sampling for its deviations from guidance documents, Respondents sought to undercut the results of EPA's sampling and analysis relying on their own sampling documentation. This documentation not only violated all of the non-binding guidance documents, but in fact was totally lacking in indicia of reliability. Mr. Perkins' personal attacks

on Mr. Houghton's sampling procedures and documentation is completely inconsistent with his own reliance on the sampling performed by Chem-Solv in 2006. Chem-Solv's 2006 sampling results are supported by far *less* documentation and supporting information than the documentation and testimony supporting EPA's sampling.

Mr. Perkins testified regarding sampling and analytics, conducted in 2006, on materials which Respondents claimed represented an analysis of sludge removed from the Acid Pit. TR3 at 211-215. On direct examination Mr. Perkins admitted that the samples taken in 2006 may have included material from sources other than the Acid Pit. TR3 at 212-213. He nonetheless testified that "[t]he indication that I got is that the vast majority of the materials sampled was materials from the sub grade tank," whereas the other materials were a "minority" of the materials in the container. TR3 at 212. He then opined that the documentation regarding this sampling event told him that "the waste that was sampled was not a hazardous waste." TR3 at 214. He confirmed on cross examination that he believed that the 2006 sample was "representative" of the Pit solids. TR4 at 83-84.

Mr. Perkins admitted on cross-examination that the *only* information he had about the 2006 sampling and analysis event consisted of the documents contained in Attachment 9, CX 21 at 1015-1021, to Chem-Solv's December, 2007 information request response. TR4 at 76-77. Mr. Perkins admitted that he had no information about the type of equipment used to take the sample, or a map of where the samples were taken. TR4 at 77-78.

Despite Mr. Perkins' stated belief that the material sampled was primarily from the Pit, he admitted on cross-examination that the documentation, on its face, appeared to indicate that the material analyzed was wholly or primarily from a source other than the Pit. TR4 at 78-79. The documentation, though, did not dissuade him from his conclusion that the sample was a

representative sample of the Pit sludge, because the existence of unfavorable documentation did not *completely rule out* the validity of his conclusion. Since he could not *rule out* the possibility that the documentation was incorrect, he apparently felt free to *assume* that it was incorrect. As shown by he following exchange, he in effect argued that since his clients often describe things incorrectly, he does not have to give weight to descriptions which are not supportive of his hypothesis:

> Q. Now, where it says here "name of waste: retention basin sediments," you agree that retention basin sediments are not what is in the Pit, is that correct?
>
> A. I am not sure how they are using the term. I understand that intuitively retention basin would suggest somewhere else, but in my experience in dealing with Chem-Solv and other clients, the use of terminology isn't always the terminology we would use. So, I am not ready to conclude that because it says retention basin sediments it is sediments from the solids that you all have been referring to as the retention basin.
>
> Q. Okay, if you will turn to the next page, 1017, and at the beginning of the page where it says "process generating waste." And it talks about "the sediments are moved by sheet flow precipitation runoff from the paved parking lot of the facilities production area." You would agree that they are not talking about anything that is flowing into the acid pit, are they?
>
> A. That is right.
>
> Q. Okay, so clearly, to the extent that samples were taken here, at least some of these samples were not taken of the pit sludge, is that correct?
>
> A. We have heard that there were other things in a container in addition to the pit solids, and I don't have enough information to say what and how much. I agree with you that if you read this and take it at face value, it would seem to indicate that there were no pit solids whatsoever. But in my experience over 20 some odd years in dealing with industrial clients and waste contractors, the process of generating a waste profile and associating it with a shipment going

> off site is far from an exact science. Often times there are profiles that are generated at a very generic nature, and a waste contractor will mandate that profile be generated, and, in my experience, a company often times in the heat of the moment will say – just use this profile, or will generate a profile that is no perfectly accurate. It is unfortunately common, and so correlating a profile to a manifest for anyone that has ever done any work with shipping hazardous waste understand that rarely is there a one to one correlation.

TR4 at 78-79.

In addition to the language found in Attachment 9, there was evidence available to Mr. Perkins that the samples analyzed as shown in Attachment 9 were not solely or even primarily from the Pit.[15] Chem-Solv's December, 2007 information request response, signed by Mr. Austin, states, in response to EPA's request to submit a waste determination for the Pit sludge, that "Attachment 9 contains the profile for this stream and the associated analysis. The material was combined with the solids removed from the solids accumulated in the drainage swale." CX 21 at EPA 659-660.

In addition, Mr. Lester told Ms. Lohman that the Pit sludge sent off-site after VADEQ's 2005 inspection was profiled using a composite sample after being mixed with three other waste streams in a "roll-off" container. TR1 at 116-117; CX 19 at EPA 377-378. Waste initially was placed in the roll-off in 2003, when Chem-Solv initiated soil removal activities on an adjacent property due to a release of contaminated stormwater. CX 19 at EPA 377. According to Mr. Lester, the soil removed in 2003 was placed in the roll-off, which was then kept on site for several years, during which time two other waste streams were added to the roll-off: (1) cleanup debris from spills throughout the plant, and (2) sediments from the stormwater swale. CX 19 at

[15] Given Mr. Perkins claim that he has examined all of the pleadings and exhibits in this case, TR3 at 175-176, we must assume that Mr. Perkins was aware of this evidence.

377. Finally, the sludge removed from the Pit in 2006 was added to the roll-off, and, according to Mr. Lester, a composite sample was taken of the mixture of soils, spill cleanup debris and Pit sludge. CX 19 at 378.

When faced with direct questions regarding whether a sample of Pit sludge could be a representative sample if all or some of the sample was not actually Pit sludge, TR4 at 78-83, Mr. Perkins avoided answering the questions directly, while continuing to insist that "my understanding is the analytical was representative of the solids in the sub-grade tank." TR4 at 83-84. He then claimed that this understanding was based upon "talking to Chem-Solv personnel," TR4 at 84, in contradiction to his earlier admission that he had no information about the sampling other than Attachment 9. TR4 at 76-77. Mr. Perkins testified that he spoke to "a variety of employees," but did not identify or discuss any of these employees other than Mr. Austin.

Later during the hearing Mr. Austin himself did testify, although Mr. Perkins' opinion was expressed prior to hearing Mr. Austin's testimony. Mr. Austin had no personal knowledge of the sampling, and thus was relying solely on what he was told by Mr. Lester. TR4 at 236-237. As Mr. Austin understood it, Mr. Lester took samples after the sludge had been removed from the Pit and placed in a "roll-off basin." TR4 at 238-239. Although Mr. Austin's testimony is not completely clear, he appears to state that additional materials were placed into the roll-off basin only after Mr. Lester collected his samples.[16] This testimony is also completely inconsistent with what Mr. Lester told the Ms. Lohman: that the roll-off had contained waste since 2003, and that the Pit sludge placed in the roll-off had been composited with the other materials in the roll-off before sampling. CX 19 at 377-378. Finally, Mr. Austin's version simply does not add up

[16] If this is what Mr. Austin intended to say, he must not have conveyed this information to Mr. Perkins when they spoke on the subject, because Mr. Perkins testified that he "can't tell you that if that stuff was added before or after the samples was actually collected." TR3 at 212.

because (1) it offers no explanation as to how and where Chem-Solv stored the contaminated soil removed in 2003 prior to putting it in the dumpster, and (2) offers no reason why the company would want to incur the expense and difficulty of moving the contaminated soil twice.

Other than Mr. Austin, Mr. Perkins stated only that "I have spoken to a variety of employees regarding all different aspects of this." TR4 at 84. Mr. Perkins did not identify any of these other employees, did not relate what it was that the employees told him, and did not explain any basis for the employees' knowledge of the 2006 sampling event. It is not appropriate to give any weight to a conclusory opinion based upon hearsay, where neither the hearsay declarant nor the substance of the declaration is identified. The Court in this case should give no weight to Mr. Perkins' claim to have "spoken to a variety of employees."

Tellingly, the one person Mr. Perkins testified that he did *not* speak to about the 2006 sampling event was the one person most likely to have information regarding the event: Cary Lester. Mr. Perkins testified that he speaks with Mr. Lester socially, and had lunch with him, but that he has not discussed the sampling event with Mr. Lester. TR4 at 84.

As the Court can observe by looking at the document, Attachment 9, CX 21 at 1015-1021, contains much *less* documentation of the 2006 sampling than Mr. Houghton's provided in his inspection report for the may, 2007 sampling. Moreover, the minimal documentation in Attachment 9 was not accompanied by *any* testimony detailing the sampling and analysis, in contrast to the extensive testimony provided by Mr. Houghton and Ms. Zawodny. Mr. Austin's testimony provided little more other than a conclusory statement as to his "understanding" that the samples were representative samples of the sludge, a conclusion which is inconsistent with Mr. Lester's statements to Ms. Lohman.

Mr. Perkins' opinion that the sludge in the Pit was not hazardous was based solely on the minimal information in Attachment 9 together with Mr. Austin's vague and inaccurate hearsay testimony. His willingness to offer such an opinion with regard to the 2006 sampling is inconsistent with his insistence that the weaknesses in Mr. Houghton's contemporaneous documentation of the 2007 events made EPA's sampling and analysis of the sludge unreliable. Despite substantial evidence that the material analyzed in 2006 was all or primarily from sources other than the Pit, and despite his own complete lack personal of knowledge of the sampling or any other information as to how the samples were taken, Mr. Perkins nonetheless opined that the sampling was representative of the Pit Sludge. This opinion is certainly not fact testimony, and, to the extent that it purports to be an expert opinion, is not based upon a credible foundation.

iii. Arguments Regarding Respondents' Inventory

Mr. Perkins testified that he investigated whether tetrachloroethene or trichloroethene were handled at the Chem-Solv facility.[17] Based upon his analysis of "inventory records," he concluded that "in the years leading up to the EPA's visit, there is no indication that tetrachloroethylene or trichloroethylene were prepackaged or handled in any way at the Roanoke facility . . . or stored." TR3 at 209-210. On direct examination Mr. Perkins did not explain at all how his analysis of "inventory records" was carried out. On cross-examination he filled in a few more details, testifying that he looked at "inventory records" covering the year 2008, when the review occurred, and also for "the time they were specifically concerned about which I believe

[17] It was never clear to Complainant whether Respondents were offering testimony on the inventory analysis in an attempt to undercut EPA's sampling and analysis, or solely with regard to the waste determination violations alleged in Count II. Complainant will assume that the argument addressed both issues and will analyze the issue with regard to Count I.

was 2007." TR4 at 90-91. He was assisted in this review of "inventory records" by Susan Dean, a fellow employee at Faulkner and Flynn. TR4 at 90-91.

He then "requested that Chem-Solv provide us with an answer to this question -- Has tetrachloroethylene or trichloroethylene been something that was stocked or repackaged on site in the years 2006 and 2007." TR4 at 91. He received a report answering this second question from Jamie Austin. TR4 at 92. He was not sure who "ran the report," but the answer he received was "no." TR4 at 92. Regardless of who "ran the report," Mr. Perkins considered the answer to be Jamie Austin's answer to the question he posed. TR4 at 92. Mr. Perkins admitted that he did not know how the question was answered:

> Q. But you don't know exactly how they answered your question, you just know that you got an answer?
>
> A. I don't know specifically how they queried their database or otherwise reviewed their records.

TR4 at 93.

Mr. Austin's testimony regarding the inventory sheds an interesting light on Mr. Perkins' testimony. Mr. Austin testified that his company's inventory records were in fact a "stock status" or a "snapshot in time of that particular moment." TR4 at 177. According to Mr. Austin, "it is impossible to go back into our system and pick a particular day and say what was the stock status on that day. . . our inventory for accounting purposes is maintained closed every month, closed every quarter, closed on an annual basis." TR4 at 178. Therefore, any analysis of "inventory records" performed by Mr. Perkins would have, at best, looked at inventory on 12 days each year, missing anything that came in and out between the monthly closings of the inventory.

More importantly, Mr. Austin's testimony regarding the examination of records other than the inventory differs from Mr. Perkins' testimony in a significant way. Mr. Austin testified that:

> I provided Mr. Perkins with a purchase history of the entire time of every product we purchased. And it would show how much was ordered versus how much was received, it would say which warehouse it was received in, it would show the value of that inventory, it would show that it was received and so on and so forth.

TR4 at 178. According to Mr. Austin, this information was analyzed by Mr. Perkins and his colleagues:

> I don't know exactly how Mr. Perkins and his colleagues interpreted all that information or processed all that information rather, but I ran a report, I exported that same report into an Excel file in a manner that they could sort it the way they wanted to sort it and that is how we developed, or that's how they developed is the best of my knowledge their opinions based on what was in inventory at the time.

TR4 at 178-179.

Mr. Austin thus testified that he turned over documents and a spreadsheet to Mr. Perkins, he does not know what Mr. Perkins did with it, but he knows that *Mr. Perkins* determined that neither tetrachloroethene nor trichloroethene was on-site in the relevant time frame. This is in contrast to Mr. Perkins, who testified, as discussed above, that he asked Mr. Austin to determine if tetrachloroethene nor trichloroethene were on-site in 2006 and 2007, Mr. Austin provided a report, Mr. Perkins does not know how Mr. Austin or his employees queried their database or otherwise reviewed their records, but Mr. Perkins knows that *Mr. Austin* determined that these two solvents were not on-site. Each principal in the exchange agrees that they did not do the analysis themselves; each relied on the other to do the analysis. Apparently they ended up

reaching agreement on the answer they both wanted without either doing an actual analysis of the records.

We cannot check up on them to see what documents they considered and how they performed their analysis, because Respondents have chosen to introduce into evidence solely the conclusion – that the two solvents were not on-site – without the "report" that was run or any of the allegedly-supporting underlying records. We cannot examine the report of the records to determine the validity of the analysis. We have to simply take the word of the person who is claimed to have done the analysis, which was either Mr. Austin (if one believes Mr. Perkins) or Mr. Perkins (if one believes Mr. Austin). Moreover, both physical evidence and prior statements indicate that the conclusion reached, by whoever it is who reached it, is not accurate.

In addition to the alleged records review, Mr. Perkins claimed to have "walked all over the warehouses many times." TR4 at 97-98. And, as mentioned earlier, Mr. Perkins has claimed to have examined every page of the record. TR3 at 175-176. One would expect any investigation of the presence of tetrachloroethene and trichloroethene at the Facility to take into consideration both the walk-through and the examination of the case record. At the very least, one would expect a thorough investigation to notice direct references in the case record to the presence of either of the two organic solvents, and to investigate such references in a focused manner. Where such references are present, one would expect the references to be admitted and addressed on direct testimony, even if such the evidence was ultimately rejected in drawing a conclusion. However, on direct examination Mr. Perkins made no mention of the direct claim in VADEQ's 2007 inspection report stating that trichloroethylene was being present at the Facility. *See*, CX 19 at 382. Similarly, not one word was uttered on direct examination about the

photographs in the record showing four different drums labeled as containing trichloroethylene. *See*, CX 19 at 473, 474, 561, 564.

It is possible that Mr. Perkins deliberately failed to mention these adverse references on direct examination, but Complainant believes that he appeared genuinely surprised on cross-examination when the inspection report reference and photographs were brought to his attention. While this absolves Mr. Perkins of allegations of deception on this point, it raises additional serious doubt as to the thoroughness of investigation that he and Chem-Solv jointly undertook to determine if either of the two solvents was on site during the relevant time frame.

Even more damaging to Mr. Perkins' conclusion is the Second Affidavit of Jamison Austin, attached as Exhibit A to Respondents' Response to Complainant's Motion for Partial Accelerated Decision as to Liability. This affidavit is dated December 13, 2011, only slightly more than three months prior to the hearing in this matter. Paragraph 17 of this affidavit is described therein as a response to Paragraph 30 of the declaration or EPA's Ken Cox, which had been attached to Complainant's accelerated decision motion, and which contained Mr. Cox's estimated calculation as to the amount of trichloroethene in the Acid Pit at the time of EPA's inspection.[18] In response Mr. Cox's statement as to the presence of trichloroethene in the Pit, Mr. Austin stated as follows:

> In response to Mr. Cox's statement in Paragraph 30 of his Declaration, Trichloroethene is packaged in 55 gallon steel drums that are not reused. The outside of these containers were not and are not washed off and any activity regarding Trichloroethene was conducted in a diked area separate from the Acid Pad. We do not have a tank for Trichloroethene and did not process such material through any hoses or pumps.

[18] Mr. Cox has since admitted that the referenced paragraph of his declaration contained mathematical errors, although the errors have no bearing on Mr. Austin's response, as quoted herein.

Second Declaration of Jamison Austin, ¶ 17. This paragraph is a flat-out admission that trichloroethene is handled and was handled at the Facility at the time of the violations. To the extent that there is any question in this regard, a comparison to the previous paragraph in Mr. Austin's Second Declaration dispels any doubts. Paragraph 16 refers to tetrachloroethene, and, while it does not appear to rule out that tetrachloroethene may be present at the Facility in pre-packaged form, Paragraph 16 does specifically deny that Chem-Solv processed, packaged, blended or otherwise handled tetrachloroethene at the Facility. The failure to include such a denial in Paragraph 17 can only be interpreted as an admission that the activities regarding trichloroethene which occurred in the "diked area" included the activities denied with regard to tetrachloroethene.

When cross-examined about the admission in Mr. Austin's declaration, Mr. Perkins response was to engage in semantic hair-splitting in what can only be described as an unsuccessful attempt to argue that the tense used in the affidavit did not apply to the period of the violations. TR4 at 103-107. In the face of evidence which was so clearly inconsistent with his opinion, it was rather disturbing to see that Mr. Perkins could not even bring himself to admit that the affidavit was inconsistent with his conclusion.[19]

Mr. Perkins also overlooked or ignored another piece of evidence inconsistent with his conclusion: the contingency plan submitted by Chem-Solv in response to EPA's November 16, 2007 information request. EPA's information request asked Chem-Solv to submit copies of the Facility's hazardous waste contingency plan in effect at the time of the inspections. CX 20 at EPA 642. In its narrative response, Chem-Solv referred to the enclosed Attachment 3, CX 21 at

[19] Mr. Perkins did suggest that because the words are Mr. Austin's, perhaps Mr. Austin "can clarify it more." TR4 at 106. Mr. Austin, however, made no attempt during his testimony to explain the inconsistency between the affidavit and his testimony at the hearing that trichloroethene was not handled on-site at the time of the violations. *See*, TR-4 at 179.

EPA 657. Attachment 3 begins at EPA 892, and includes, as do all proper contingency plans, a section which lists hazardous substances which may be present at the Facility and instructions for handling emergencies regarding these substances. CX 21 at EPA 911-913. This section of the contingency plan may be used by Facility employees or by emergency responders, so it is important to provide an accurate list of possible hazards. The contingency plan lists both tetrachloroethene[20] and trichloroethene. CX 21 at EPA 912.

Finally, in EPA's November 16, 2007 information request, EPA requested information regarding 42 drums which had been the subject of an earlier state enforcement action, but remained on-site at the Facility at the time of the May 15, 2007 inspection. CX 20 at EPA 643; *See, also* CX 17 at EPA 316. The information request required Chem-Solv to provide information regarding each drum, including the contents and volume. CX 17 at EPA 316. Chem-Solv's response to this question referred to Attachment 11c, CX 21 at 662, which is found at CX 21 at 1062-1064. Drum No. 6 on Attachment 11c is described as a 600-pound drum of virgin trichloroethylene. This document also must have been either missed or ignored in the investigation leading to Mr. Perkins' conclusion that trichloroethene was not present at the Facility at the time of the alleged violations.

b. Respondents Stored Listed Hazardous Wastes in the Acid Pit

EPA's analysis of the water and sludge in the Acid Pit revealed the presence of three hazardous constituents at levels supporting regulation as characteristic toxic hazardous waste, pursuant to 40 C.F.R. § 261.24, and a number of other hazardous contaminants at significant levels, even though not above regulated levels. These contaminants obviously had to have come

[20] Tetrachloroethene is listed in the contingency plan under its synonym of "Perchloroethylene." Trichloroethene is listed under its synonym of "Trichloroethylene."

from somewhere. However, they could not have come from a chemical manufacturing process, because Chem-Solv does not engage in chemical manufacturing at the Facility.

Chem-Solv is a wholesale chemical distributor, engaged in the buying and selling of chemicals. TR4 at 158. Chem-Solv buys "a vast array of products" from producers and suppliers. TR4 at 164-165. Some of these products arrive containerized and are sold in the same container, but many products arrive in tank trucks and rail cars and are re-packaged before sale. TR4 at 165.

In addition to repackaging bulk chemicals, Chem-Solv also engages in blending of chemicals at the Facility. TR3 at 6 – 7. TR3 at 130, 134 – 136, 138. TR3 at 151, 153. TR3 at 208. TR4 at 116 – 117. TR4 at 211 – 213, 223. Chem-Solv describes itself as a wholesale distributor of chemicals and allied products whose primary business function (*i.e.*, "greater than 99%") is the purchase of virgin material from a producer or a supplier for repackaging or direct resale. CX 21 at EPA 655, ¶ 1.d. TR4 at 164 – 165. The Facility took steps to avoid any type of manufacturing activities, which have subjected Respondents to storm water permitting requirements. TR1 at 112. Chem-Solv also claims that it does not accept chemical wastes at the Facility. TR4 at 116 – 117. TR4 at 164 – 169. The hazardous constituents in the Acid Pit therefore could not have been intermediaries or wastes from a chemical process.

Chem-Solv claims to have absolutely no idea how hazardous constituents got into the Pit. CX23 at EPA 1082-1083. Since there is no chemical manufacturing at the site, the only possible explanation is that chemical products themselves somehow got into the Pit. Whether inadvertently or deliberately, whether from a spill or directly out of a container, whether down a drain or directly into the tank, chemical products at the Facility found their way into the Pit. Once these chemical products left their original containers and contacted a concrete pad, a drain,

or the Pit itself, they can no longer be used for their original purpose, and thus are "discarded commercial chemical products," as referred to in 40 C.F.R. § 261.33. These discarded commercial chemical products are hazardous wastes if they are listed in 40 C.F.R. § 261.33(e) or (f).

As has been discussed at length, two organic solvents, tetrachloroethene and trichlorethene, were found in large quantities in EPA's analysis of the Pit sludge. Discarded tetrachloroethene and trichlorethene are both listed as hazardous wastes in 261.33(f): discarded tetrachloroethene is listed as U210 and discarded trichlorethene is listed as U228. These discarded products were not generated in the Pit, but instead were already hazardous wastes at the time that they entered the Pit.

Although tetrachloroethene and trichlorethene were found in the Pit in particularly large quantities, many other hazardous constituents were found in the Pit is lesser quantities. See CX 15 at EPA 249-253, 259-263. It is likely that many of these hazardous constituents also entered the Pit as discarded chemical products.

For purposes of liability, it is not necessary to determine exactly how the discarded chemical products found their way into the Pit; it is sufficient to simply point out that there is no other logical explanation for the presence of tetrachloroethene and trichlorethene and some of the other hazardous constituents in the Pit other than their presence as discarded commercial chemical products. However, it may be helpful to note several possible avenues by which such products could have entered the Pit.

One potential avenue as for discarded chemicals to be washed into the Pit after a spill. If there was a spill on the "acid pad," such a spill could easily have been washed down the drain. Mr. Tickle originally testified that he thought spills on the acid pad were cleaned up with

absorbent, TR3 at 153, but he later admitted that he "didn't work out there all time, so as for that part, I wouldn't know." TR3 at 158. As discussed above, the weight of the evidence shows that the drain from the blend room to the Pit was also open at the time of EPA's sampling inspection, and thus spills in the blend room could also have been washed into the Pit. During the May 18, 2007, state inspection, Mr. Lester confirmed that product spillage and floor wash wastewater from the blending room went into the floor drain and to the Pit. TR1 at 88, 174; CX 19 at EPA 374.

Mr. Tickle also testified to another source of the discarded chemicals in the Pit. Asked how the Pit could require neutralization if dirt was the only thing washed into it, Mr. Tickle admitted that product was in fact washed into the Pit: "some of the stuff on the pad, when they were using it, you would have to adjust, some of the product." TR3 at 159.

Mr. Tickle's testimony suggests still another potential source of contamination. Mr. Tickle testified that "pit water," in his terminology, might actually mean water from the "dike walls," TR3 at 138, rainwater which collects within the containment areas surrounding the various tanks at the Facility. TR3 at 135-136. According to Mr. Tickle, Chem-Solv used that water to make blends, pumping it "directly from the dike walls into the tankers." TR3 at 135. The apparently routine use of rainwater from tank containment areas raises a whole new dimension to the potential for contamination, given the possibility of leaks or spills within the tank containment areas. Given Mr. Tickle's insistence that the terms "pit water" and "dike wall water" were used interchangeably, it is possible that his memory was slightly faulty, and it was in fact pumped dike wall water which was used to spray off drums on the acid pad. If so, any contamination from a leak or spill in a containment area would have been conveyed to the Pit.

There was certainly no shortage of potential sources of unwanted chemical products. Mr. Austin noted that every single time a tanker or rail car was loaded into drums, there would be a partial drum, called the "heel," which would be left once the rest of the load was loaded into full drums. TR4 at 169-170. Even if it was company policy never to pour "heels" into the drain, it is certainly possible that such an event could have happened without management's approval. Similarly, workers might easily have taken it upon themselves to get rid of relatively small quantities of product accepted for return because it was off-spec or otherwise unsuitable. Workers may have taken similar measures to deal with the contents of returned drums which were supposed to be "RCRA empty" but which turned out, on closer examination, to not be quite as "empty" as necessary.[21]

This discussion is not meant to imply that there is direct evidence that unauthorized activities took place at the Chem-Solv facility. The point is only to suggest that there were a number of very plausible scenarios through which discarded commercial chemical products could have found their way into the Acid Pit. Indeed, it is certainly hard to escape the impression that Chem-Solv's operations are plagued by a fair number of mistakes or mishaps. Just during the few days in May, 2007 that state and EPA inspectors were on-site, the inspectors identified evidence of a number of leaks from drums and other containers. *See, e.g.,* CX18 at EPA 335, 341; CX19 at EPA 376-377, 381-382, 387, 389, 416, 418, 420-424, 428, 432, 581, 593-605, 617-618, 634. While these leaks appeared obvious to the inspectors, and appear obvious to someone viewing photographs of them, there was no sign that the company's employees or management had identified and began addressing them. It is thus not hard to imagine scenarios through which discarded commercial chemicals could find their way into the

[21] In the May 18, 2007 inspection, the VADEQ inspectors discovered several containers, claimed to be "RCRA empty," which in fact were not empty to the required degree. CX 19 at EPA 383.

Pit, whether deliberately or inadvertently, in contravention to official company policy. There is simply no other explanation for the presence of large quantities hazardous organic solvents made their way into the Pit.

i. Respondents' Claimed Acid Pit Exemptions

A key element of Respondents' defense at the hearing was its argument that the Acid Pit was exempt from RCRA regulation because it was being used to store a useful "product" – used rinse water – pending the re-use of that "product." Respondents have thus claimed that the Acid Pit was not and is not a regulated unit under RCRA because it fits under the exemption set forth in 40 C.F.R. § 261.4(c).

Chem-Solv has claimed that the used water was sometimes re-used as wash water, sometimes used as a component in a coal antifreeze product called "Freeze-Con," and sometimes sent off-site for disposal. Later in this brief Complainant will explain why the alleged re-use of wash water, and incorporation of wash water into Freeze-Con, even if it did occur, does not qualify the Pit for an exemption from RCRA. However, the Court could decide the matter without even examining the finer legal points of Respondents' claimed exemption, because an examination of the evidence indicates that Respondents' factual claims are not true, and that water from the Pit was not in fact being re-used. Respondents' witnesses who testified with regard to the re-use of water each have credibility issues.

(a) Re-Use of Rinse Water

Respondents' expert witness, Scott Perkins, assumed that Chem-Solv had re-used water from the Pit as rinse water, but he did not indicate any personal knowledge that this was the case. In fact, he could not have had personal knowledge because he had not been brought into the matter until after the Pit had been emptied and removed from the ground. TR4 at 107-108. Mr.

Perkins opined at length about the legal ramifications which he believed flowed from the facts that he assumed, but his assumption -- that rinse water was re-used -- was based solely on representations allegedly made to him by others. Mr. Perkins stated that he interviewed a number of employees at the facility, but he did not even identify who those employees were, other than Mr. Austin. He admitted that he did not interview Mr. Lester, the Chem-Solv Operations Manager at the time of the alleged violations, although Mr. Perkins sees Mr. Lester socially. TR4 at 84.

To the extent that Mr. Perkins offered any factual testimony with regard to the re-use of water from the Pit, this testimony is hearsay. More than that, it is hearsay that is not subject to any of the traditional hearsay exceptions under the Federal Rules of Evidence. For example, as noted above, Mr. Perkins does not even identify the names of hearsay declarants on whom he relies, and gives us no reason to believe that these unnamed persons themselves had personal knowledge. Although the Court has the discretion to allow such hearsay testimony into evidence under the Consolidated Rules, there is no reason to give hearsay of this type any weight whatsoever.

Mr. Austin and Mr. Tickle also testified to the re-use of water, but the testimony of both witnesses described a system which was implausible in many ways. For example, Mr. Austin testified that water was re-used multiple times to rinse drums. See, e.g., TR4 at 200-204. Mr. Austin did not describe any specific step in the system in which tap water was added, but instead described a system where the same water was re-used repeatedly in a closed loop. Mr. Tickle testified that drums were rinsed using water from the 6,200-gallon aboveground tank, which, he believed, was pumped into the aboveground tank from the Pit, and then ran back into the Pit.

TR3 at 130-133. Mr. Tickle's testimony similarly failed to describe any step during which outside water was added to the system, and thus describes a closed-loop system.

As described by Mr. Perkins (hypothetically, since he had no personal knowledge as to what happened at the Facility), at some point rinse water re-used in this manner would become too dirty to re-use again, and at that point it would have to be shipped off-site. TR3 at 195. Mr. Perkins compares Chem-Solv's system to a parts washer system, where solvent is re-used in a closed loop until the solvent is completely spent, at which point *all* of the spent solvent would be sent off at the same time for either regeneration or disposal. TR3 at 195. If this analogy were to hold, Chem-Solv would need to have a process for evaluating the water in the Pit to determine when it became too dirty to re-use, and the entire system would have to be flushed when the water reached that point.

However, neither Mr. Austin nor Mr. Tickle described any effort made to determine if the water in either the Pit or the aboveground tank was suitable for re-use. Mr. Austin testified that Chem-Solv did not – and could not -- keep track of how many times the water was re-used. TR4 at 204. Moreover, the condition of the water was not even a factor in determining when water would be shipped off-site. As described by Mr. Austin, water would be drawn off and shipped off-site when the total level of water in system exceeded the capacity of the system. Water would be pumped out of the system only when "water use was such" that both the Pit and the 6,200-gallon above-ground tank were completely full. TR4 at 204. Mr. Perkins also testified that the system would eventually back up. TR3 at 196.

Mr. Austin's description of the circumstances when water is disposed is very curious, because it describes a system where the total level of water in the system (comprised of the Pit and the aboveground tank) increases as the rate of water use increases. This testimony is

consistent with a system in which outside tap water is used to wash drums, but it is not consistent with the closed-loop system Mr. Perkins posited and Mr. Austin and Mr. Tickle described. Mr. Tickle also described a system where spray water *always* came from the aboveground tank, also a closed-loop system. TR3 at 127-128. If drums were rinsed only using used rinse water from the aboveground tank, and the aboveground tank only contained water pumped from the Pit, and the Pit only contained water used to rinse drums, then the quantity of water in the system would not increase regardless of the rate at which water was used to wash drums. As Mr. Austin noted, the system might not be a "perfect scenario," where water "would run in a complete circle," TR3 at 204, but this lack of perfection could not logically lead to an *increase* in the water in the system. The system would likely *lose* water, through evaporation or leakage. An increase in the rate at which the re-circulated water was used to spray drums could never cause the system to gain water.

Water could conceivably be added to the system, but Mr. Tickle specifically denied that that was the case, TR3 at 127-128, and Mr. Austin did not describe any circumstances under which water would be added. If the system was truly a re-circulating system, there is no logical reason why water *should* be added to the system unless and until the re-circulating water becomes spent. When that happened, *all* of the spent water would have to be removed, so that it would not contaminate any new water added – just like in Mr. Perkins' parts washer example. It would make no sense whatsoever to add clean water to the system to the degree that the capacity of the re-circulating system was exceeded. Yet, the only situation described by either Mr. Austin or Mr. Tickle where water was removed from the system was when the level of water in the system increased to a point that exceeded the system's capacity.

Mr. Austin's description of a re-circulating system is inconsistent with Cary Lester's description of how Pit water was managed. During the May 18, 2007, state inspection, Mr. Lester told Ms. Lohman that waste water was collected in the Pit, transferred to the aboveground tank, and transferred to a tanker truck. TR1 at 97; CX 19 at EPA 375. While talking to Mr. Lester, Ms. Lohman sketched a diagram, showing the steps in the water treatment process as those steps were described to her by Mr. Lester. TR1 at 104; CX 33 at 1451. Mr. Lester's description of the management of rinse water made absolutely no mention of the re-use of the water as rinse water. This would be an almost inconceivable omission if, as Mr. Austin claimed, the primary method of rinse water management was to re-use the water multiple times before shipping it off-site.

Despite repeated discussions and written exchanges with EPA about the Acid Pit and the waste water coming out of the Pit, Chem-Solv made no mention whatsoever of the alleged re-use of rinse water until such a claim was incorporated into the Answer to the Complaint in this matter. On repeated occasions Chem-Solv described in detail the processing and disposal of Pit water without so much as a mention of the alleged re-use of the Pit water. For example, in the December, 2007 information request, Chem-Solv was asked: "[h]ow often is the pit cleaned out?" to which Chem-Solv responded: "[w]ash water is pumped from the pit into storage tank adjacent to acid pad when full and tested for pH prior to shipment to processing facility." CX 21 at EPA 658. This describes a path where the water goes from the Pit to the aboveground tank, and then to disposal, and is thus consistent with the description related to Ms. Lohman by Cary Lester. The description makes absolutely no mention of the repeated recirculation of rinse water, which would, if true, be a critical intermediate step that Chem-Solv could scarcely have overlooked.

As noted above, in the same December, 2007, information request response, Chem-Solv claimed that it had made changes to reduce the rate of waste water generation "based on new production procedures and initiatives such as dedicated containers, hoses, nozzles and pumps, eliminating the need to flush between products. Further reduction is expected as we continue to eliminate operations that generate wash water." CX 21 at EPA 658. If Chem-Solv were in fact repeatedly re-using rinse water at the time, it is very hard to believe that the company's information request response would fail to mention that fact while describing all of the *other* measures it was taking to reducing the generation of wash water. The fact that wash water was being re-used multiple times, if true, would have been perhaps the most significant factor in the reduction of waste water generation, and yet Chem-Solv made no mention of such a procedure.

In another information request response, dated February, 2008, Chem-Solv again addressed the disposal of waste water from the Pit, and again made absolutely no mention of the alleged re-use of Pit water. In describing why a waste determination was not done for Pit solids, Chem-Solv stated that the solids are about 10-30% of the wash water, and are "light and easily conveyed with routine wash water removal." CX 23 at EPA 1081. Chem-Solv then stated that the solids are "conveyed with the regular wash water shipments." CX 23 at EPA 1081. Again, it is hard to imagine Chem-Solv engaging in such a discussion of the disposal of "regular wash water shipments" without the slightest mention of the claim that the water, which is 10-30% solids, is first re-used as rinse water multiple times.

The implausibility of Respondents' claims is also apparent in the nature of the water allegedly being re-used. Mr. Lester stated that the pH of the Pit water would be determined and the pH adjusted if necessary, but not until the water left the Pit and the aboveground tank. TR1 at 97. Sometimes the water, when tested, would have a pH of less than 2 or greater than 12.5.

TR1 at 97-98; CX 19 at 375. This would make the water dangerously caustic, creating a very serious hazard if highly caustic liquid was used in an open area with, as Mr. Austin described, an "industrial strength or commercial grade power washer . . . not unlike you would see at a large car wash type deal." TR4 at 200. Given the serious hazard posed by the risk that caustic liquid would be used, the procedure described by Mr. Lester – testing and neutralized only after the waste is pumped out of the aboveground tank for disposal -- would be inconsistent with the re-use of the water to spray down drums.

Mr. Tickle did testify to his belief that the Pit water was neutralized while still in the Pit, TR3 at 139, but this is inconsistent both with Mr. Lester's statements to Ms. Lohman, and with the company's information request response stating that the water was tested for pH and neutralized after it was pumped out of the Pit: "wash water is pumped from the pit into storage tank adjacent to the acid pad when full and tested for pH prior to shipment to processing facility." CX 21 at EPA 658. *See also*, TR1 at 97. Even if one believes Mr. Tickle's claim that the caustic water was sometimes neutralized in the Pit, neither of Respondents' witnesses described *routine* testing of the Pit water, which would be necessary to ensure that the water was neutralized before being transferred to the aboveground tank. There would have to be very frequent routine testing to avoid pumping caustic water into the aboveground tank, where it could be used to power-wash containers, especially since the pumping of water from the Pit to the aboveground tank occurs automatically when the Pit reaches a certain level. TR3 at 157-158. None of Respondents' witnesses thought to mention such an obvious and necessary step in the process.

Testing and neutralizing the pH of the water only after it leaves the aboveground tank would be inconsistent with the safe re-use of the used water for power spraying operations.

However, it *would* be consistent with the system as described by Mr. Lester to Ms. Lohman, in which the used wash water is sent off-site. Testing and neutralizing the water as it leaves the aboveground tank would meet the demands of transporters and disposal facilities, whose only concern with regard to pH is that the load they are transporting or treating is not currently a caustic waste.

(i) Use of Pit Water to Make Freeze-Con

Respondents also presented evidence in an attempt to show that waste water from the Pit was sometimes used as a raw material in the manufacture of a coal anti-freeze product known as Freeze-Con.[22] This evidence also lacks credibility.

Mr. Austin testified that sometimes water from the aboveground storage tank was used as a raw material in Freeze-Con. TR4 at 204. According to Mr. Austin, Respondents' Exhibit 3 is an "exhaustive" compilation of batch tickets for the blending of Freeze-Con from 2005 to 2010. TR4 at 212. Mr. Austin claims that the tickets can be used to determine the source of the water used, but he can point to only a single batch ticket, RX 3 at CS 035, which contains a notation using the term "pit water." Mr. Tickle, in his testimony, did not support Mr. Austin's claim that the handwritten notation of "pitwater" represented water from the Pit. Instead, Mr. Tickle testified that the use of the term "pit water" on that particular batch ticket meant that the water was "[p]robably from the dike walls," (TR3 at 138), meaning collected rainwater. TR3 at 135-136.

Mr. Austin also testified that a number of other notations on the batch tickets indicated to him that the water might have been from the Pit. The notations he references, however, are cryptic at best, and he provides absolutely no corroborating evidence to show that each of these

[22] As discussed below, when a byproduct such as used wash water is incorporated into a fuel, the byproduct is and remains a solid waste, and the fuel itself also becomes a solid waste.

disparate notations indicate the use of Pit water. The notations Mr. Austin cites include the following: "tank behind blend area marked #84," "one gallon bulk," "tank 10," and "tank beside the scales." TR4 at 213-214; RX 3 at CS 22, 35, 38, 50, 51, 52. Mr. Austin gave no explanation as to why Pit water would have been stored in so many different tanks and identified in so many different ways. In fact, Chem-Solv and its agents have repeatedly told EPA and the state that Pit water is stored only in the Pit, the adjacent 6,200-gallon aboveground tank, or in "totes." In all of the many discussions and correspondence between Chem-Sov, EPA and Virginia, often focusing specifically on the disposition of the Pit water, Chem-Solv had never even intimated that the Pit water was transferred into any tank other than the Pit and the adjacent 6,200-gallon aboveground tank.

Mr. Austin even seemed to indicate that the notation "tanker 1728" in the "water" box on CX 3 at 34, indicates that Pit water was pumped *into* tanker 1728 during the blending of Freeze-Con. Clearly tanker 1728 is not dedicated to storing Pit water, because it is listed in one instance as the source location for the glycols in the Freeze-Con blend. RX 3 at CS-22. It is very hard to see how the location in which the water is poured when the Freeze-Con is blended can tell Mr. Austin that Pit water was used. His testimony provides no answer as to how he drew such a conclusion.

Although Mr. Austin is vague on this point, he also appears to claim that the term "one gallon bulk" or "1G Bulk," on RX 3 at CS 38, somehow refers to Pit water. TR4 at 213. Given the prevalence of the term throughout the batch tickets, it is hard to take this claim seriously. The exact same term is used on dozens of batch tickets for batches blended *after* the removal of the Pit in early February, 2008. RX 3 at 42-122. These batch tickets, representing many tens of

thousands of gallons of water, including batches prepared as late as December, 2010. *See*, RX 3 at 42-122.

Mr. Austin's claim that water from the Pit was used in Freeze-Con is also inconsistent with the information provided to Ms. Lohman by Cary Lester. At the May 18, 2007, inspection, the inspectors noticed a number of drums of a product labeled as Freeze-Con, and asked Mr. Lester about this product. CX 19 at 382. According to Mr. Lester, Freeze-Con was made from excess or lightly contaminated glycols sent to Chem-Solv by its customers. TR1 at 106-107; CX 19 at 376, 382. During this discussion, Mr. Lester gave no indication whatsoever that waste water from the Pit was incorporated into Freeze-Con, despite his detailed conversation with the inspectors about Pit water management earlier during the same inspection. TR1 at 107-108. To the contrary, Mr. Lester told the inspectors that Chem-Solv was *looking into* potential re-uses for the waste water, but that at the time of the inspection the water was being managed as waste water. TR1 at 107-108. If water from the Pit was at that time being used as part of the blending of Freeze-Con, it is nearly inconceivable that Mr. Lester would not mention this fact, either during the discussion of the management of waste water in the Pit, or the discussion of the manufacture of Freeze-Con. Instead, as noted above, Mr. Lester indicated that Chem-Solv was merely looking into the possibility of re-using waste water.

In addition, as noted above, Chem-Solv and EPA corresponded multiple times with regard to the disposition of the Pit water. Chem-Solv repeatedly described the process leading to the off-site disposal of that water without mentioning the claim that some of that water was being used to manufacture Freeze-Con. The lack of any mention of this alleged use of Pit water undermines the credibility of Respondents' claims.

(ii) The 40 C.F.R. § 261.4(c) Exemption Does not Apply

Respondents have attempted to argue that the Acid Pit is exempt from regulation as a hazardous waste storage unit under RCRA pursuant to 40 C.F.R. § 261.4(c).[23] Respondents' argument depends upon its claim that used rinsewater was, at least some of the time, being re-circulated and used again as rinse water, and used on occasion as a raw material in the blending of Freeze-Con. As discussed at length above, Respondents' claims as to the re-use of wash water for rinsing, and in Freeze-Con, are not supported by credible evidence.

However, even if Respondents' claims of re-use and recycling are believed, the Acid Pit was still not exempt from RCRA. In explaining why, we will assume, for the sake of argument, that Respondents are correct in their claim that the Pit water was re-circulated and re-used as many as several times, and was on occasion incorporated into Freeze-Con. Our argument will incorporate Respondents' admission that the Pit water was eventually sometimes disposed of as a waste, and admission that the water, on at least some occasions, needed to be neutralized due to high or low pH.

In other words, EPA will assume that, at least intermittently, the material from the Acid Pit was re-used and, when the material was re-used, it was intermittently neutralized prior to that re-use. Therefore, there were three potential scenarios which might apply to the Pit water at any given time:

(a) Re-use of the wastewater after neutralization of the wastewater

(b) Re-use of the wastewater without neutralization

[23] Chem-Solv's claim to such an exemption is an affirmative defense, upon which Chem-Solv has the burden of proof. As such, Complainant technically has no obligation to address the argument in its initial brief, but could instead wait to reply to Respondents' initial brief of their defense. However, in the interest of judicial economy, Complainant will address the issue as Respondents appeared to frame it at the hearing, while reserving Complainant's right to fully respond, including a potential sur-reply, to the arguments Respondents make in their initial brief.

(c) Removal of the wastewater for disposal

The regulatory implications of each of these scenarios will be discussed below.

(A) Scenario 1 – Re-use of the wastewater after neutralization of the wastewater

As discussed at length above, Chem-Solv claims that it re-circulated the wastewater in the acid pit. Chem-Solv employees, however, admitted, that the wastewater was at least sometimes neutralized before re-use. TR1 at 97-98; TR3 at 139; CX 19 at EPA 375; CX 21 at EPA 658. Chem-Solv further claims, for a variety of reasons, that this wastewater was not a solid waste (and therefore not a hazardous waste) and was not subject to regulation under RCRA.

Chem-Solv's claimed re-use of the wastewater means that any inquiry into the regulatory status of that wastewater must begin in the recycling provisions of the RCRA regulatory scheme. 40 C.F.R. § 261.2. Recycling is defined to be the use, re-use or reclamation of a material. 40 C.F.R. § 261.1(c)(7). The approach set forth in the regulations to determine whether a material destined for recycling is covered as a regulated 'solid waste' is that "one must know both what a material is and how it is being recycled before knowing whether it is a solid waste." 50 *Fed. Reg.* 614, 616 (January 4, 1985)

The first step in this inquiry is to determine the type of material involved. Certain materials, when recycled in specific ways described in 40 C.F.R. § 261.2, will be classified as solid wastes. Other materials that are recycled in ways that are not covered by the regulations are not subject to regulation as a solid and hazardous waste. See Table 1, 40 C.F.R. § 261.2. EPA considers the class of materials that are subject to recycling regulation to be "secondary materials" and EPA believes that the wastewater in the acid pit meets the definition of one of these materials known as "spent materials." A spent material is "any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced." 40

CF 261.1(c)(1). Put another way, spent material is a used virgin material that must be reprocessed before it can be re-used. See, RO 11101 (August 13, 1985) (Letter from Mathew A. Strauss, Chief, Waste Identification Branch to Mr. Paul Gowen, Texas Instruments, "Regulatory Status of Solder Dross When Smelted for Lead Recovery").

There is no question that the wastewater in the acid pit had been used by Chem-Solv to wash containers. Mr. Tickle has testified that, from time to time, the wastewater had to be neutralized (TR3 at 139) and Mr. Lester admitted to VADEQ that sometimes the pH of the water in the Pit was above 12.5 or below 2.0. CX 19 at EPA 375. This indicates that the Pit water, on occasion, was too corrosive to be used as it was found in the Pit, and had to be neutralized to be re-used. EPA has consistently interpreted "corrosivity" as a form of contamination as that term in used in the "spent material" definition. RO 11822 (March 24, 1994) (Memorandum from Michael Shapiro, Director, Office of Solid Waste to Hazardous Waste Management Division Directors, Regions I – X, "Clarification of When a Secondary Material Meets the Definition of "Spent Material"; RPPC No. 9441.1994(07); *In the Matter of Brenntag Great Lakes, LLC.* 2004 EPA ALJ LEXIS 18 at * 10. Essentially, contamination is any alteration of the material that renders it unavailable to perform the function for which it was being used. Therefore, the wastewater in the acid pit is spent material.

EPA addressed a very similar situation in a memorandum from the Office of Solid Waste to EPA Region VII:

> As I understand the process, the rinsewater from the container washing is collected in a sump, is then pumped to a settling tank, and subsequently treated with activated carbon. The treated rinsewater is reused for container rinsing….
>
> Your interpretation that the used rinsewater is a 'spent material' is correct; as a spent material going for treatment (or reclamation), it is a solid waste.

RO 11374 (October 27, 1988) (Memorandum from Michael Sylvia K. Lowrance, Director, Office of Solid Waste to David A. Wagoner, Director, Waste Management Division, "Pesticide Rinseate Treatment/Recycling System"; RPPC No. 9471.1988(04)).

The second step in the regulatory recycling inquiry is to determine whether the reprocessing that the material will undergo is the type of recycling activity EPA has identified as within the regulatory jurisdiction. These activities include: use in manner constituting disposal, burning for energy recovery, speculatively accumulation and reclamation. If any of the secondary materials defined in the regulations are recycled in one of these ways, the material will be deemed to be a solid waste.

In this case, Chem-Solv was engaged in the practice of reclamation of the acid pit wastewater. "A material is 'reclaimed' if it is processed to recover a usable product or if it is regenerated." 40 C.F.R. § 261.1(c)(4). Reclamation involves those steps necessary for material recovery and occurs when there is significant conversion of a material's chemical composition. *See*, RO 14748 (October 4, 2005) (Memorandum from Mathew Hale, Director, Office of Solid Waste to RCRA Management Division Directors, Regions I – X, "Guidance for Identifying Incidental Processing Activities").

The evidence shows that from time to time, the wastewater in the acid pit had to be neutralized before it could be re-used. Neutralizing a material to remove a corrosive characteristic so that it is amenable for subsequent use meets the definition of 'regeneration' (to make something valuable again); intentionally changing the pH of a waste is a significant change to the material's chemical composition. Therefore, Chem-Solv engaged in reclamation of the wastewater when it neutralized the material prior to re-use. EPA has reached the same conclusion in similar circumstances. RO 11546 (August 1, 1990) (Letter from David Bussard,

Director, Characterization and Assessment Division to Mr. Michael J. Farley, McGuire, Woods, Battle and Boothe, "Tank Treatment System of Metal-Rich Rinsewaters"; RPPC No. 9483.1990(01)).

Because Chem-Solv conveyed to the Pit spent materials that were to be reclaimed, Chem-Solv was handling a solid waste in the Pit. *US v Ilco,* 996 F2d 1126, 1131 (11th Cir. 1993). If the contents of the Pit met one of the hazardous waste characteristics, then those materials were subject to the hazardous waste regulations while in the Pit.

The acid pit was being used to store, manage and reclaim a solid waste. The pit could be considered neither a raw material storage tank nor a manufacturing process unit. EPA has stated that waste that is generated in a raw material storage tank or a manufacturing unit is not subject to regulation until the waste is removed from the unit or 90 days after the unit is taken out of service. 40 C.F.R. § 261.4(c). For this provision to apply, however, the waste has to be initially generated in the unit in question. Furthermore, the unit must be dedicated solely to raw material storage or the process of manufacturing the product. RO 14469 (May 26, 2000) (Memorandum from Elizabeth A. Cotsworth, Director, Office of Solid Waste to George Pavlou, Director, Division of Enforcement and Compliance Assistance, EPA Region II, "Kodak Claim for Manufacturing Process Unit Exemption to the RCRA Subpart BB Air Emission Requirements). The wastewater involved here at the Chem-Solv operations was not generated in the acid pit but was generated at the point where is ceased to be used and is collected for routing to the acid pit. The acid pit was merely storing the wastewater and there was no process occurring in the acid pit that can be shown to create the wastewater. Therefore, on this basis alone, 40 C.F.R. § 261.4(c) is not applicable here.

However, there are additional reasons why the provision is inapplicable. There is no regulatory definition of "raw material storage tank," but the ordinary meaning of these terms dictate that this is a container that stores unused material. According to Chem-Solv, the acid pit collected the used wastewaters, along with other waste streams such as dirt from the outsides of drums. Therefore, it was not a raw material storage tank.

There is also no regulatory definition of a "manufacturing process unit," but the ordinary meaning of terms dictates that it is a unit where an actual step in the manufacturing process takes place. EPA has offered examples of the types of units that would qualify under this provision. 45 *Fed. Reg.* 72024,7 2025 (October 10, 1980). These example -- distillation columns, flotation units, cooling towers -- stand in marked contrast with the Acid Pit in that actual product processing (chemical and physical separation of the product) is occurring in the example units. No part of Chem-Solv's chemical sales or chemical blending operations occurred in the acid pit, and it is certainly true that the existence of the acid pit has no bearing on the manufacturing of any of Chem-Solv's products. Even if, somehow, during some portion of time, the wastewater in the pit could be classified as non-secondary material (rinsewater stored before direct re-use, for example), the fact that this operation was not exclusively occurring negates the applicability of 40 C.F.R. § 261.4(c).

Use of the pit to contain material that is spent (in need of neutralization), at least intermittently, mades the MPU exemption inapplicable. There is nothing in the language of the provision itself that would indicate that a mixed use unit (used at times for non-solid waste handling and used at other times for solid waste handling) can qualify for the exemption. In fact, mixed use would undermine the very nature of the exemption if the unit is not used exclusively to manage non-solid wastes. EPA has consistently interpreted the provision to be inapplicable in

mixed use circumstances. RO 12790 (December 1, 1986) (RCRA/Superfund Hotline Monthly Summary, "Wastes Generated in Process Units"; RPPC No. 9441.1986(96)); RO 13790 (December 19, 1986) (Letter from Joseph E. Cara, Acting Director, Waste Management Division to Mr. Hadley Bedbury, Diamond Shamrock Chemicals Company, "Tank Systems Applicable to Production Tanks During Cleanout, Process Transfer Equipment, and Hose Lines"; RPPC No. 9483.1986(11)).

In addition, the unit was not dedicated solely for manufacturing: according to Chem-Solv, at least intermittently, material that is stored in the acid pit is removed for disposal. This storage prior to disposal renders the material being stored a solid waste. 40 C.F.R. § 261.2(b)(3).

Chem-Solv cannot claim that its process meets the terms of the recycling provisions of 40 CFR 261.2(e). As noted above, the rinse wastewater is reclaimed when neutralized. Therefore, neither the provisions of 40 CFR 261.2(e)(1)(i) nor (iii) are applicable as both require that the recycling not involve a reclamation step. Furthermore, 40 C.F.R. § 261.2(e)(1)(iii) requires that the material be returned as feedstock, and the rinsewater was only intermittently incorporated into Freeze-Con (if at all).

In fact, the use of rinsewater in Freeze-Con could never keep a secondary material from being a solid waste, because Freeze-Con is designed solely to be sprayed on coal, and coal is a fuel that is going to be burned. Pursuant to 40 C.F.R. § 261.2(c)(2)(B), secondary materials are solid wastes if they are "[u]sed to produce a fuel or are otherwise contained in fuels."

Finally, 40 C.F.R. § 261.2(e)(1)(ii) provides that a material directly used as a substitute for a commercial product would not be designated as a solid waste. EPA has clearly indicated that "this activity involves the direct use of a secondary material in non-manufacturing applications or functions" and that this provision applies when "the material substitutes for a

finished product rather than a raw material ingredient in a production process." March 1986 Recycling Guidance (Guidance Manual On The Rcra Regulation Of Recycled Hazardous Wastes). Because Chem-Solv is not in the business of selling or distributing rinsewater, it is not employing the rinsewater as a finished commercial product.

(B) Scenario 2: Re-use of the wastewater without neutralization

Because this scenario was not exclusively employed but rather, it occurred, if at all, intermittently among the other two scenarios, the regulatory status of the material in the Acid Pit was not determined by this scenario but rather by scenario 1 or 3. In other words, so long as the material in the Acid Pit was a spent material to be reclaimed at *some* times, the pit would be considered to be handling a solid waste at all times

(C) Scenario 3: Removal of wastewater for disposal

As stated above, the Region believes this was what was actually happening all or most of the time. Under this scenario, the Acid Pit is merely a storage unit prior to disposal and as such, the material in it is as a solid waste. 40 C.F.R. § 261.2(b)(3). Even if one believes that this was not the exclusive operating scenario, the fact that this scenario occurs some of the time is enough to require the unit to be regulated and the material to be treated as solid (and hazardous) waste.

2. Storage of Hazardous Waste Sodium Hydrosulfide in the Warehouse

a. Evidence in the Record

i. Complaint / Answer

In Count I of the Complaint, and with specific reference to a drum of sodium hydrosulfide material, EPA alleges that:

> From at least May 23, 2007 until February 20, 2008, Respondents stored a drum of waste sodium hydrosulfide at the Tax Parcel 4170102 portion of the Facility. Respondents shipped this sodium hydrosulfi[d]e off-site for disposal after 273 days of storage. The

> waste sodium hydrosulfide was a solid waste which exhibited the characteristics of corrosivity and reactivity and was therefore a hazardous waste (EPA Hazardous Waste Number[s] D002 and D003) pursuant to 9 VAC 20-60-261.A, which incorporate by reference 40 C.F.R. § 261.22(b) and 23(b)."

Complaint at 6, ¶ 30. Complainant further alleges that Respondents failed to qualify for the "less than 180 day generator accumulation of 9 VAC 20-60-262.A, which incorporates by reference 40 C.F.R. § 262.34(d) with exceptions not relevant herein, with respect to the [Respondents'] storage of the 55 gallon drum of sodium hydrosulfide. . . by failing to satisfy the conditions for [such] exemption . . .' and that "Respondents and owned and operated a hazardous waste storage facility without a permit or interim status. . . , in violation of 40 C.F.R. Part 270."

Complaint at 7, ¶ 36, 37.

In its Answer to the Complaint, Respondents aver that:

> With regard to the allegations in Paragraph 30 [of the Complaint], Respondents admit that EPA observed a drum of sodium hydrosulfide on Tax Parcel 4170102 during its inspection on May 23, 2007. However, Respondents deny that the sodium hydrosulfide drum observed by EPA on May 23, 2007 was shipped off site for disposal on February 20, 2008. In fact, the sodium hydrosulfide drum referenced by EPA was not a waste, but a useable product that was sold to a customer. The remaining allegations in Paragraph 30 are legal conclusions, to which no response is required. To the extent that a response is required, Respondents deny these allegations in Paragraph 30.

Answer at 4, ¶ 31. (*Emphasis supplied*). Respondents deny all subsequent allegations. Answer at 4, ¶ 37, 38.

ii. May 2007 VADEQ Inspection Report

The portion of the VADEQ Inspection Report that pertains to the May 23, 2007 Facility Inspection conducted at the 11110 Industry Avenue Warehouse Area of the Facility, as prepared by VADEQ Inspectors Elizabeth A. Lohman and Kimberly Thompson, includes a section that is captioned "Leaking containers." That section of the VADEQ Inspection Report reads as follows:

> During the sampling inspection, the DEQ noted a strong "sulfur" odor. The DEQ tracked the odor to a leaking drum of sodium hydrosulfide which was sitting on a pallet

> stacked on top of another pallet of four drums. (See Photos 192, 204, 205, 206, 207, 208, 209, 210, 211, and 212)[24][.] Once this was brought to Mr. Lester's attention, Mr. Lester called for a forklift operator to remove the drum and pallet from the area and to repackage or overpack the drum. When the forklift operator arrived and removed the top pallet from the stack, DEQ observed a drum on the bottom pallet was open and labeled caustic soda. Liquid was standing on top of the drum. The operator was instructed to remove the caustic soda drum as well. As the operator removed both drums from the area, the sodium hydrosulfide and the caustic soda were spilled on the warehouse floor and spilled material left a visible trail across the warehouse floor, the parking lot, and across the street (See photos 213, 214, 215, and 216).[25] See additional comment below.[26]

CX 19 at EPA 387.

iii. EPA Information Request Letter and Chem-Solv's Response

In a February 4, 2008 Information Request Letter addressed to Mr. L. Glen Austin, President, Chemicals and Solvents, Inc. (hereinafter "2/4/08 IRL"), EPA sought additional information from Respondent Chem-Solv in the wake of the May 18, 2007 and May 23, 2007 inspections and sampling activities conducted at the Facility. (CX 22*)*. In a series of initial questions set forth under the heading "Requested Information" and beneath an instruction that "[**t]he following questions refer to the Virginia DEQ observations on May 18, 2007 and May 23, 2007**,"[27] EPA made inquiry about the leaking drum of sodium hydrosulfide and the

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[24] The Photos referenced in the VADEQ Inspection Report as photos 192 and 204 – 212 can be found in the record at CX 19 at EPA 581, 593-601.

[25] The Photos referenced in the VADEQ Inspection Report as photos 213 – 216 can be found in the record at CX 19 at EPA 602-605.

[26] In a separate section of the VADEQ inspection Report that is captioned "Pit area", and which pertains to May 23, 2007 inspection activities conducted at the 1140 Industry Avenue of the Facility, the VADEQ Inspectors additionally reported that: "When the EPA, DEQ, and Mr. Lester approached the Pit area, the DEQ noted smoke coming from the top of a drum. The DEQ recognized the drum as the caustic soda drum that had just been relocated from the warehouse. It appeared that the operator had brought the 55-gallon drum to the pit area and had laid dirty rags on top of the drum to absorb the liquid on top of the drum. The rags reacted with the caustic soda and began smoking. The operator had left the area and was preparing to leave the facility for the day. The operator had to be called back to take care of the smoking rags." CX 19 at EPA 389.

[27] CX 22 at 1066. (*Emphasis in original*)

open drum labeled caustic soda that were observed by VADEQ inspectors.[28] (*Emphasis in original*).

In a response to the 2/4/08 IRL dated February 6, 2008 (hereinafter, "2/6/08 IRL Response"), Mr. Jamison G. Austin, Vice President and General Manager of Respondent Chem-Solv, submitted written narrative responses, provided copies of certain documents and certified that his response, and the information set forth therein and annexed thereto were "true, accurate and complete."[29] In that 2/6/08 IRL Response, Mr. Austin responded to EPA's questions regarding the leaking drum of sodium hydrosulfide and the open drum labeled "caustic soda" that were observed inside the 1111Industry Avenue Warehouse at the Facility by the VADEQ inspectors as follows[30]:

11. On page 16 of the [VADEQ inspection] report, DEQ observed a leaking drum of sodium hydrosulfide that was stored above an open drum labeled "caustic soda." For each of these two containers:

    a. Submit a waste determination and any chemical analysis for each container.

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[28] EPA asked the following questions about these two drums in its 2/4/08 IRL:

> On page 16 of the [VADEQ inspection] report, DEQ observed a leaking drum of sodium hydrosulfide that was stored above an open drum labeled "caustic soda." For each of these two containers:
> a. Submit a waste determination and any chemical analysis for each container.
> b. Submit any and all disposal records for each material.
> c. How long was each container stored at this location ?
> d. What steps were taken to clean up the spilled material from these containers inside the warehouse and outside the building ?
> e. Submit the disposal records for the clean up materials.

CX 22 at 1067, Ques. 11.

[29] Mr. Jamison G. Austin's certification and signature may be found in CX 23 at EPA 1084-1085.

[30] In the 2/6/08 IRL Response, Mr. Austin first repeated EPA's specific question and the provided Respondent Chem-Solv's answer to that question. The actual answers provided by Mr. Austin are in *italics*.

No waste determination made. Caustic Soda 50% was repacked into new drum and sold as regular stock item. Sodium Hydrosulfide drum was segregated and checked for leak. Drum found not to be leaking and was relabeled.[31]

b. Submit any and all disposal records for each material.

No waste disposal for Caustic Soda Liquid. Material sold as regular stock item. Sodium Hydrosulfide disposal record is attached in attachment 11b.

c. How long was each container stored at this location ?

Original purchase date unknown. Materials have been purchased numerous times and purchase order numbers and dates are not associated or referenced on all packaged goods.

d. What steps were taken to clean up the spilled material from these containers inside the warehouse and outside the building ?

No material was spilled during repackaging transfer of drums to suitable containers

e. Submit the disposal records for the clean up materials.

N/A

CX 23 at 1078, Response 11. (*Emphasis supplied*).

In attachment 11.b. to his 2/6/08 IRL Response, Mr. Jamison G. Austin also provided a copy of Uniform Hazardous Waste Manifest 004172819JJK, dated February 20, 2008 and an accompanying Land Disposal Restriction and Certification Form. CX 23 at EPA 1097, 1098. The first item identified on that disposal manifest is a 55 gallon drum container of D002 and D003 hazardous "Waste Sodium hydrosulfide Solution." CX 23 at EPA 1097, Sections 9 – 13. (*Emphasis supplied*).

iv. 1st Affidavit of Jamison G. Austin

RX 2 is the undated "Affidavit of Jamison G. Austin" (hereinafter referred to as "1st Austin Affidavit"). Mr. Austin therein professes personal familiarity with the facts surrounding Chem-Solv's 2007 and 2008 inventory of sodium hydrosulfide. RX 2 at CS 003 ¶ 5. He states

[31] Mr. Mr. Austin reiterated this response in his Hearing testimony. TR4 at 272.

that at the time of the May 2007 Facility inspections, "Chem-Solv had at least three drums of sodium hydrosulfide in inventory at the Facility," each of which "contained less than 55 gallons of product." RX 2 at CS 003, ¶ 6. (*Emphasis supplied*). He then states that, subsequent to the May 2007 Facility Inspections, Chem-Solv contacted customer C.H. Patrick Corporation to see if that company was interested in purchasing Chem-Solv's "entire inventory of sodium hydrosulfide" and that C.H. Patrick Corporation committed to "take a portion of the sodium hydrosulfide that was in inventory at the Facility . . . by the end of 2008" and advised that it "was willing to agree to take the entire balance. . . at some point in the future, if it were still available." RX 2 at CS 003, ¶ 7.

Mr. Austin states that C.H. Patrick Corporation "could not estimate when it would need the remainder of sodium hydrosulfide that was in Chem-Solv's inventory" so Chem-Solv "decided to retain only two of the committed partially full drums[,]" and that "Chem-Solv ultimately sold [those] two partially full drums of virgin sodium hydrosulfide product" to C.H. Patrick Corporation in October 2008. RX 2 at CS 003, ¶ 7. Mr. Austin also states that Chem-Solv also decided to dispose of the third partially full drum of sodium hydrosulfide off-site on Februalry 20, 2008 "in order to avoid further criticism by the regulators." RX 2 at CS 003, ¶ 7.

Mr. Austin also asserted that "[i]t is common for Chem-Solv to have partially full drums of product that are left over at the end of packaging of a bulk load of product inventory." RX 2 at CS 003, ¶ 8. He then states that the three drums of sodium hydrosulfide in inventory at the Facility in May 2007 were "first quality unused product that was available for sale to Chem-Solv's customers." RX 2 at CS 003, ¶ 9.

v. Respondents' Expert Witness Report

In his Expert Witness Report (RX 30), Mr Scott Perkins. P.E. asserts that "[e]ven though some sodium hydrosulfide was shipped off-site as a hazardous waste on February 20, 2008, it was not a hazardous waste on May 23, 2007." RX 30 at CS 310. Mr. Perkins notes that the drum of sodium hydrosulfide that is the subject of EPA's instant allegations "was one of several partial drums of sodium hydrosulfide" in storage at the Facility in May 2007 and then incorrectly concludes that "EPA neglected to observe the other partial drums."[32] RX 30 at CS 310- 311. Mr. Perkins then notes that the VADEQ Inspectors had, in fact, identified one of the other partially-filled containers of sodium hydrosulfide at the Container Destruction Area of the Facility[33] and that "they were told that Chem-Solv, Inc. 'would test the material and, if it was "good[,]" the material would be put back into inventory.'"[34] RX 30 at CS 311. Without citing to

[32] Each of the three drums of sodium hydrosulfide referenced in Mr. Perkins Expert Witness Report as being stored on-site at the Facility in May 2007 were, in fact each noted in the VADEQ Inspection Report (CX 19) and noted by EPA. *See* CX 19 at EPA 381, 387 and 389. *See also* discussion *infra*.

[33] *See*, CX 19 at EPA 381. This "evaluation" process described by Mr. Perkins sounds very similar to the process described by Mr. Austin as applying to material returned to the Facility through the Chem-Solv RMA Program. Mr. Austin testified that Chem-Solv makes efforts to investigate and determine the quality of the contents of any container that comes back to the Facility through this RMA Program as follows: "If they appear to have been opened, we will open them and pull a sample and review the sample. In generally speaking, it is cut and dry whether or not it is what they say it was going to be. If a customer says hey this smells funny, I don't want it in my plant, I have to get it out of here, et cetera, then once[] it has been evaluated at the customer site, we'll bring it back and we'll pull a sample of it, and management takes a look at it and makes a determination of whether it smells funny, or it doesn't or, you know, a guy had a cold and could not smell correctly, whatever it happened to be - is it off-color, did it have dust floating on the top of it, whatever the issue happened to be that the customer may complain about, we would investigate that physically. If we were not able to determine at that point, then we would go the next step and try and run some analysis of on either a refractive index and go as far as running a GC mass spec. on it." TR4 at 167 – 168. However, Mr. Austin testified as to no such similar procedures being employed at the Facility with respect to "valuable products", "virgin material" or "not used" material.

[34] Mr. Perkins thus acknowledges that Facility personnel did not then consider this sodium hydrosulfide to be "in inventory" and that it needed to be tested, as Facility personnel acknowledged to the VADEQ Inspectors that "the material inside the drum was hardening". CX 19 at 381.

any supporting evidence in the record, Mr. Perkins then asserts that "[t]his evaluation was in fact performed and the material was found to be useable product."[35] RX 30 at CS 311.

Mr. Perkins subsequently reiterates Mr. Austin's claims regarding the February 20, 2008 off-site disposal, as hazardous waste, of "the unneeded" 55-gallon drum of sodium hydrosulfide" and Chem-Solv's solicitation and subsequent purported sale of some of Chem-Solv's sodium hydrosulfide inventory to C.S. Patrick Corporation. RX 30 at EPA 311, *citing to* RX 14, RX 15. He also states that in EPA's 2/4/08 IRL, the Agency "specifically asked for a 'waste determination and any chemical analysis' for the single 55-gallon container that they viewed on May 23, 2007'" and concludes that Chem-Solv accurately responded by stating "No waste determination made." RX 30 at CS 311. Despite a complete lack of any supporting evidence in the record, Mr. Perkins explains that no waste determination was made by Chem-Solv prior to its disposal of the referenced drum of sodium hydrosulfide as a hazardous waste on February 20, 2008 "since the drum viewed by the EPA had been combined with other drums after having been determined to be a usable product." RX 30 at CS 311.

vi. Elizabeth A. Lohman Testimony

At the Hearing, Ms. Lohman testified that during the course of the May 23, 2007 sampling inspection conducted at the 1111 Industry Avenue Warehouse area of the Facility, she and all those present smelled a "strong rotten egg smell" that was both "obnoxious" and "irritating." TR 1 at 128. She then testified that she searched for, and identified the source of the odor and identified that source as a "leaking drum of sodium hydrosulfide." TR 1 at 128. She

[35] Notwithstanding the contemporaneously documented evidence that at least two of the drums of sodium hydrosulfide at the Facility in May 2007 contained material returned to the Facility through Chem-solv's RMA Program, Mr. Austin has insisted that the sodium hydrosulfide inventory at the Facility in May of 2007 consisted of "three partial drums all heals from a bulk drum off" and that "[t]hese happened to be partial bulk drum offs, not a full load nevertheless, left a heal of a drum." TR4 at 192. He further agreed that such material could accurately be characterized as "a valuable product, a virgin material or not used material." TR4 at 275. (*Emphasis supplied*). If this is what Mr. Austin truly understood and believed, then there would have been no reason, as Mr. Perkins suggests, for Chem-Solv to have had to evaluate the material in order to determine that it was a usable product.

stated that she knew the drum contained sodium hydrosulfide, and that it was leaking, because: "[t]he drum was labeled sodium hydrosulfide", the leaking material had a "yellow" color that "was consistent with what sodium hydrosulfide looks like" and because the odor of the material – "[r]otton egg" also was consistent with the smell of sodium hydrosulfide. TR 1 at 128 – 129. In addition to her testimony regarding the "rotten egg" odor, she further testified that the drum appeared to be leaking "because there was a yellow material, residual material piling up on the wooden pallet on which the drum was sitting". TR1 at 129.

Ms. Lohman described this leaking drum of sodium hydrosulfide as a "black drum" with a "label identifying its contents" and with a "hazard class corrosive label on it." TR1 at 129 – 130. *See also* CX 19 at EPA 581. Referencing photos she took of the leaking sodium hydrosulfide drum during the Facility inspection, Ms. Lohman described the condition of one side of the drum as "dented inward". TR1 at 130. *See also* CX 19 at EPA 581. She then described the condition of the "other side of the sodium hydrosulfide drum" as also being "dented inward." TR1 at 130. *See also* CX 19 at EPA 593, 595. In a May 24, 2007 correspondence with EPA's Ken Cox, Ms. Lohman also described this drum as "collapsing inward." CX 47 at EPA 1583. In subsequent testimony, Ms. Lohman again referenced certain photos that she took during the Facility inspection to illustrate that, at the time of the inspection, she could see that "sodium hydrosulfide has leaked "onto" and "below" the pallet on which the drum of sodium hydrosulfide was being stored and that the "sodium hydrosulfide [also] has leaked onto the top of an open sodium hydroxide drum" that was then being stored on a pallet immediately below the leaking drum of sodium hydrosulfide and that "there's liquid pooling on the top." TR1 at 131 - 132. *See also* CX 19 at EPA 594, 596 – 601.

Ms. Lohman further testified that because sodium hydrosulfide is a respiratory irritant, the VADEQ inspectors asked Facility Operations Manger Cary Lester "to take care of it" and that Mr. Lester had a fork lift operator come and separately move from the 1111 Industry Avenue Warehouse both the leaking sodium hydrosulfide drum and also the open drum of caustic soda (a/k/a sodium hydroxide) onto which sodium hydrosulfide had leaked. TR1 at 132 – 133. Ms. Lohman testified that during such activities, the operator "lifted" and "tilted" the pallet that each drum was on and "as they did, liquid was sloshing off of the containers" and left both a "trail" and "residual on the floor" which were not cleaned up off the warehouse floor while the VADEQ inspectors were there. TR1 at 132 - 133. *See also* CX 19 at EPA 602 – 605.

With respect to Chem-Solv's management practices in moving the leaking drum of sodium hydrosulfide, Ms. Lohman testified that she "would have expected the employee to . . . deal with the leaking drum there in the warehouse, maybe transfer the contents to a . . . better drum or overpack the drum." TR1 at 134. As to the Chem-Solv's prior management of this drum of sodium hydrosulfide before it was moved from the warehouse, Ms. Lohman noted that "the sodium hydrosulfide drum was leaking and no one seemed concerned about the condition that the drum was in or the fact that the material had been released." TR1 at 134. She expressed her own additional concerns about the condition of that leaking drum, explaining that:

> The drum couldn't be shipped . . . it couldn't be put into transportation under DOT regulations as i[s]. It didn't meet the shipping requirements for containers. So to me, it wasn't being managed in a commodity-like manner. . . ."

TR1 at 134.

Ms. Lohman also testified that the open drum of caustic soda that a forklift operator removed from the warehouse "had been brought over to the pit and had piled rags on the top of the drum [presumably to] soak up or absorb up the liquid that was standing on top" and that it

was her assumption that the drum was moved to this area because "they were going to have to clean it up and so they were going to be rinsing it off and doing whatever they needed to do." TR1 at 139. *See also* TR1 at 136 - 137, CX 18 at EPA 357. Ms. Lohman did not see the leaking and buckled drum of sodium hydrosulfide at this time and, in fact, testified that during the remainder of the May 23, 1007 Facility inspection she later saw "other containers of sodium hydrosulfide" at the Facility, "but they were not the same container" (i.e., the "buckled sodium hydrosulfide drum at the 1111 warehouse . . . identified it as the source of the odor") and that she did not know the fate of the leaking and buckled drum of sodium hydrosulfide. TR1 at 179, 180.

Ms. Lohman also specifically recalled seeing two other containers of sodium hydrosulfide during her May 2007 Facility inspection activities. TR1 at 140. One of those "other containers" is specifically identified and referenced in the 1111 Industry Avenue Warehouse section of the VADEQ Inspection Report, which states that:

> Upon entry to the warehouse, <u>in the container return area</u>, the DEQ observed several drums observed with "PD" spray painted on the side. (See Photo 79 and 80) Mr. Lester explained that "PD" means that particular drum is a "partial drum" that was brought back to CS on a facility-owned truck from a customer. One of the "PD" drums was labeled sodium hydrosulfi[d]e.[36] When asked, the employee for that area did not know from which customer the drum came. The employee stated that the material inside the drum was hardening and that he was "deciding what to do with [the drum and its contents]." They stated they would test the material, and if it was "good," the material will be put back into product inventory. He also stated he was waiting on Don (another Chemsolv employee) to decide what to do with it.[37]

CX 19 at EPA 381. (*Emphasis supplied*). Ms. Lohman identified this additional drum of sodium hydrosulfide in the VADEQ Inspection Report photos, noted that the drum had a "printed label

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[36] The VADEQ Inspection reports reads "sodium hydrosulfite" (rather than "hydrosulfide"), but the accompanying Inspection Report photo 79 of this drum (contains both a clear Chem-Solv "Sodium Hydrosulfide 45%" applied label on the side of the drum and a white painted and stenciled lettering reading "SODIUM HYDROSULFIDE" on the top of the drum and Ms. Lohman explained this discrepancy by noting that the Inspection Report entry was "a typo" . CX 19 at EPA 381 and 468; TR1 at 141.

[37] See also, Ms Lohman's supporting testimony that "an employee had told us that the drum was – the chemical was behaving differently, that it was hardening, and he wasn't exactly sure what he was going to do with the material in the drum." TR1 at 142.

that says sodium hydrosulfide and . . . stenciling on the top" that "says sodium hydrosulfide" along with additional stenciling of the letters "PD", which Mr. Lester told her referred to a "Partial Drum" which, in this case, "were materials that were brought back from customer facilities." TR1 at 141. CX 19 at 468 – 469. She testified that this particular drum of sodium hydrosulfide was "not dented in" and was in "good shape." TR1 at 142. She also testified that Mr. Lester advised her during the inspection that drums in this area of the Facility were "supposed to be empty" but he had found that "quite a number of the drums had a considerable or significant amount of liquid left in them, whether it was a couple of inches . . . Some of them were fifty percent full. Some of them could have been seventy-five percent full." TR1 at 142 – 143.

Regarding the other additional (*i.e.*, the third) drum of sodium hydrosulfide observed by the VADEQ Inspectors during the May 2007 Facility inspections, the "Drum and Container Destruction Area" section of the VADEQ inspection Report includes a paragraph that states, in relevant and applicable part, that "Another drum was labeled 'PD' (indicating a partial drum, as previously explained by Mr. Lester) and "sodium hydrosulfide." CX 19 at EPA 389. At the Hearing, Ms. Lohman elaborated on that reference, identifying this "particular" partial drum of sodium hydrosulfide as being stored "up towards the front of the warehouse . . . off of the loading dock area. TR1 at 144. Ms. Lohman recalled that she and Ms. Thompson "noted a number of containers in the drum and tote destruction area that had varying levels of liquid inside of them" and that Mr. Lester was uncertain as to why these partially filled drums were in this area of the Facility and that Mr. Lester made comments such as "I don't know why that's here" and "[t]his shouldn't be here." TR1 at 144. Upon review of the photographs in the VADEQ inspection Report, Ms. Lohman further identified this particular drum as a "fifty-five

gallon drum with the PD lettering painted on it. It's the sodium hydrosulfide drum. And this is in the tote and container destruction area." TR1 at 144 – 145. CX 19 at EPA 638 – 639. She also commented that the drum was in good condition, not leaking and not buckled or bulging. TR1 at 145.

Ms. Lohman also expressed general concern about the drums located at the Tote and Container Destruction Area of the Facility during this May 23, 2007 inspection because ". . . Cary Lester repeatedly told us that they bring back only empty containers from the – from the customers, yet we continued to find drums that were brought back from customer facilities that had liquid in them." TR1 at 145.

vii. Scott Perkins Testimony

Respondents' expert, Mr. Scott Perkins, P.E., initially testified that "[i]n order for [a material] to get all the way to the point where it's a hazardous waste, it has to be a solid waste, discarded material and a hazardous waste." TR3 at 180. He also testified that a "discarded material" is one that has been "abandoned", which includes materials that are "inherently waste-like." TR3 at 179, 180. When asked by Respondents' counsel whether he had "go[ne] through that evaluation with respect to the [leaking drum of] sodium hydrosulfide [observed by the VADEQ inspectors at the Facility's 1111 Industry Avenue Warehouse on May 23, 2007]", however, Mr. Perkins said that he "didn't" because he concluded that "it was not a discarded material . . . because it was product[,] it was a sale product, we saw a bill of sale for it, and it was a pretty simple decision."[38] TR3 at 180 – 181.

[38] The record, by contrast (and in contradiction of Mr. Perkins' testimony), actually establishes that the leaking drum of sodium hydrosulfide observed by the VADEQ inspectors at the Facility's 1111 Industry Avenue Warehouse on May 23, 2007 was NOT sold by the Respondents but was shipped off-site for disposal as a DOO2/D003 hazardous waste and that the purported "Bill of Sale" referenced by Mr. Perkins actually pertained to two *other* partial drums sodium hydrosulfide that were shipped to one of Chem-Solv's customers at "No Charge". *See*

With specific regard to the leaking drum of sodium hydrosulfide observed by the VADEQ inspectors at the Facility's 1111 Industry Avenue Warehouse on May 23, 2007, Mr. Perkins testified that "the inventory records show there were a number of partial drums of sodium hydrosulfide".[39] TR3 at 181. He further testified that:

> CHEMSOLV contacted a customer that . . . they knew had been interested in the past in buying sodium hydrosulfide, and contacted this customer and asked are you interested this product? They said maybe, let's come out and take a look at it. And they came out, and they decided that yes, we do want this product.[40]

TR3 at 181 – 182.

Respondents' counsel then called Mr. Perkins attention to the fact that there was evidence that might lead one to believe that "a drum containing sodium hydrosulfide was in a compromised condition" and asked him if his analysis or conclusions about the content of the drum might be effected if the drum itself "had a hole in it or a dent in it." TR3 at 182 – 183. Mr. Perkins responded by stating "No[], . . . not in the case of sodium hydrosulfide." TR3 at 183. His rational for that answer was based upon his comparative analysis to the hypothetical instance that when a "leaking underground [storage] tank [has] a gas leak . . . that is bad [and] needs to be resolved . . . [b]ut the gasoline in the tank is still good." TR3 at 183.

Mr. Perkins subsequently explained to the Court his opinion that the sodium hydrosulfide being accumulated at the Facility would not be hazardous waste as long as the company had

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discussion, *supra.* (*See also* RX 14 , CX 23 at EPA 1078, CX 19 at EPA 387, RX 15 at CS 195 and TR4 at 272 – 277.

[39] This testimony was of interest to Complainant because Respondents have provided no "inventory records" pertaining to any of the three drums of sodium hydrosulfide observed by the VADEQ inspectors at the Facility on May 23, 2007. Respondents have *only* provided a Bill of Lading and an Invoice for the two drums of sodium hydrosulfide that Respondent sent to C.H. Patrick Corporation (RX 15 at CS 196), which are the not subject of EPA allegations.

[40] Complainant notes that there is absolutely no evidence in the record that any representative of the referenced customer, C.H. Patrick Corporation, came from that company's Greenville, South Carolina location to Chem-Solv's Roanoke, Virginia Facility "to take a look at" three drums of sodium hydrosulfide. (RX 15 Invoice and Bill of Lading documents identify two Greenville, South Carolina addresses for C.H. Patrick Corporation).

some intention to use or sell it in the future. TR4 at 127. When asked by the Court about whether something beyond the mere opinion of the company was needed to provide reasonable support of such intention, Mr. Perkins responded in the affirmative, indicated that "that goes to the notion of . . . whether it is a discarded material or not" and of credibility with the regulators, and the "concept of speculative accumulation" that "applies a lot to secondary materials[41] that may be recycled" but "does not apply to chemical inventory."[42] TR4 at 127 – 129.

Mr. Perkins also testified that, even though he had reviewed Facility bills of sale and other records, he did not know how or when Chem-Solv acquired any of the three drums sodium hydrosulfide. (TR4 at 129). He also testified as to his belief that Chem-Solv came to an agreement with a customer to purchase sodium hydrosulfide from the Facility in February, 2008 and that this "decision had already been made before [he and his firm] were engaged by CHEMSOLV" and that he "didn't hear about it until well after." TR4 at 129 – 130.

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[41] The leaking, dented and buckling drum of Sodium Hydrosulfide stored at the 1111 Industry Avenue Warehouse at the time of the May 23, 2007 Facility inspection was never destined for recycling. Nor do the Respondents claim that the material content in that drum was a "secondary material." Rather, it was described by Mr. Austin as a "a virgin material or not used material" (TR4 at 275) and in Respondents' Answer to the Complaint as a "useable product" (*i.e.*, a commercial chemical product) that was destined to be sold to a prospective customer. Answer at 4, ¶ 31; TR4 at 127.

[42] To clarify Mr. Perkins' testimony, the speculative accumulation provisions of 40 C.F.R. Part 261 apply *only* to secondary materials that are not solid wastes when recycled. *See* 40 C.F.R. §§ 261.1(c)(8), 261.2(c)(4) and 261.2(e)(2)(iii). Certain recyclable materials are not considered solid wastes if they are recycled in a timely manner and are conditionally exempt from RCRA regulation. However, if these materials are accumulated on-site for too long, they become a solid waste pursuant to the speculative accumulation provisions of 40 C.F.R. § 261.1(c)(8) and 261.2(c)(4). Specifically, the regulations state that a material is not accumulated speculatively if: (1) the material is potentially recyclable, (2) there is a feasible means of recycling the material, and (3) 75% by weight or volume of the amount of the material accumulated at the beginning of the calendar year (January 1) is either recycled or transferred to a different site for recycling during the calendar year. If 75% of the material is not recycled in the specified time frame, the material becomes a solid waste on January 1 of the following year. 40 C.F.R. § 261.1(c)(8). In other words, certain secondary materials that are otherwise excluded from the definition of solid waste become regulated as solid and hazardous waste if accumulated speculatively. Commercial chemical products, however, are not secondary materials and, as a result, are not subject to the speculative accumulation provisions of 40 C.F.R. §§ 261.1(c)(8), 261.2(c)(4), or 261.2(e)(2)(iii)). EPA has not placed any time constraint on the accumulation of commercial chemical products prior to reclamation. *See*, 50 FR 614, 636 (January 4, 1985). *See also* RO 13755 (August 1995) (Hotline Questions and Answers re "Purpose and Applicability of Speculative Accumulation Provisions"; RPPC No. 9441.1995(29)).

viii. Jamison G. Austin Testimony

Chem-Solv Vice President and General Manager, Jamison G. Austin, testified that his best recollection as to the Facility's sodium hydrosulfide inventory in May 2007 was "three partial drums all heals from a bulk drum off." TR4 at 192. He also testified that Chem-Solv "contacted a customer, CH Patrick Corporation, who was a consumer of sodium hydrosulfide" and "used sodium hydrosulfide in a batching process, meaning they are not using it continually" and "asked them if they would be willing to buy these partial drums from us." According to Mr. Austin's initial testimony, CH Patrick Corporation "said they did not have an immediate need for it, but that they would commit to take a portion of the total material we had in stock"[43] because they "had tentative plans to use it in the end of the third quarter, beginning of the fourth quarter of . . . 2008." TR4 at 192 – 193. (*Emphasis supplied*). Mr. Austin testified that Chem-Solv sold some of the sodium hydrosulfide at the Facility to CH Patrick Corporation, but that Chem-Solv "had one part drum left -- a small part drum, the smaller of the three part drum." TR4 at 193. He also testified that the sodium hydrosulfide, as it then existed, was a usable product. TR4 at 193.

Mr. Austin next testified that the documents included within RX 15 were copies of the paperwork that documented the transaction between Chem-Solv and CH Patrick Corporation and that the documents included within RX 14 were copies of the hazardous waste manifest corresponding to the off-site disposal of the remaining drum of sodium hydrosulfide. TR4 at 193- 194. He also testified that at the time (February 20, 2008) that this drum of sodium hydrosulfide was shipped off-site for disposal, he was aware that that Chem-Solv was the subject of an EPA and VADEQ inquiry and that sodium hydrosulfide was an issue. TR4 at 194. He

[43] Note, by contrast, Mr. Austin's subsequent direct testimony as found at TR4 at 194 – 195 and discussed *infra*.

then explained that Chem-Solv decided to get rid of the remaining drum of sodium hydrosulfide at the Facility because "[s]uch a large deal was made out of the drum, so many questions were asked -- after advising counsel, we felt like it was the best business decision to eliminate any potential -- any additional questions that may arise from that drum still being on site after selling two of the drums." TR4 at 194.

Respondents' counsel next inquired if Mr. Austin got rid of the remaining drum of sodium hydrosulfide because he "did not know when [he] might be able to sell the remainder." (TR4 at 194). Mr. Austin responded to that question affirmatively, but concluded his direct testimony regarding the sodium hydrosulfide drums by contradicting his own prior testimony and stating that:

> That is correct. <u>They committed to taking all of the pounds</u>. I don't recall exactly what the total number of pounds were, but I do know that they could not give me a definitive, or could not give CHEMSOLV a definitive date when they would be able to take the last of that material.

TR4 at 194 – 195.[44] (*Emphasis supplied*).

On cross-examination, when asked by counsel if the Facility inventory of sodium hydrosulfide in May of 2007 consisted of "one drum that DEQ saw and . . . was leaking and that was at the 1111 warehouse. . . and "two partially filled drums that were in different locations at the facility", Mr. Austin answered "Correct" and also noted that "the first one [Complainant's counsel] referenced was also a part drum." TR4 at 271. When asked by Complainant's counsel whether the drum of sodium hydrosulfide that VADEQ saw leaking inside the 1111 Industry Avenue warehouse was the one that Chem-Solv eventually made a decision to ship offsite accompanied by a RCRA hazardous waste manifest, Mr. Austin initially disagreed. TR4 at 271. When specifically asked where this drum of sodium hydrosulfide went, Mr. Austin claimed that

[44] Mr. Austin's earlier testimony was that CH Patrick Corporation "said they . . . <u>would commit to take a portion of the total material we had in stock</u>" TR4 at 193. (*Emphasis supplied*).

"[i]t stayed at 1140 until we made a determination that CH Patrick was going to take a portion of our material and we sold them a portion of that material . . . ." TR4 at 272. However, Mr. Austin was then confronted with the 2/6/08 IRL Response (CX 23 at EPA 1078) which contained his own prior (and certified) response to EPA's inquiry about this specific drum of sodium hydrosulfide ("as identified on page 16 of the VADEQ Inspection Report"). CX 23 at EPA 1078. Only when confronted with direct evidence that he had indeed previously indicated, in a certified statement, that this specific drum of sodium hydrosulfide was shipped offsite as hazardous waste on February 20, 2008 and that the RCRA hazardous waste manifest (004172819JJK) and disposal records that he submitted as Attachment 11.b to the 2/6/08 IRL Response identified that specific drum of sodium hydrosulfide as "Waste Sodium Hydrosulfide Solution" and as "D002" and "D003" hazardous waste (*see* CX 23 at 1078, 1097) did Mr. Austin acknowledge his prior written and certified statements and grudgingly amended his Hearing testimony. TR4 at 272 – 273.

With respect to the two other partial drums of sodium hydrosulfide that were identified, *supra*, as being stored at the Drum and Container Destruction Area and at the entry of the 1111 Industry Avenue Warehouse in May of 2007, Mr. Austin testified that these other two partial drums of sodium hydrosulfide went to C.H. Patrick Corporation and that RX 15 contained the Invoice and the Bill of Lading for the sodium hydrosulfide shipment that Chem-Solv claims to have "sold" to C.H. Patrick Corporation in approximately January 2008 and transferred to them in approximately September 2008. TR4 at 274 – 277. Mr. Austin also acknowledged that Chem-Solv had no records of contacting C.H. Patrick Corporation in January 2008, making a sale at that point in time or receiving monies for the sodium hydrosulfide. TR4 at 275.

Mr. Austin also testified that virgin sodium hydrosulfide was "not an expensive product." TR4 at 275. He estimated that in 2008 it sold for "less than 20 cents a pound . . . probably less than 15 cents a pound,"[45] such that the 447 net weight pounds of sodium hydrosulfide shipped to C.H. Patrick Corporation on October 6, 2008 by Chem-Solv[46] should have brought Chem-Solv at least $60.00 in revenue[47], plus associated shipping costs. However, the associated Invoice establishes that Respondent Chem-Solv sent these two partial drums of sodium hydrosulfide material to C.H. Patrick Corporation at "No Charge" and both the Bill of Lading and the Invoice indicate that the material was "SHIPPED VIA CHEMSOLV." RX 15 at CS 195, 196. (*Emphasis supplied*). Mr. Austin thereafter acknowledged that the Invoice sent by Chem-Solv to C.H. Patrick Corporation for the two partial drums of sodium hydrosulfide clearly indicates that there was "No Charge" for this material and that both the Unit Price and the Total price identified on the Invoice was zero dollars and zero cents (*i.e.*, $0.00). TR4 at 277. *See also,* RX 15 at CS 195. On re-direct examination, Respondents' counsel also noted that the Invoice to C.H. Patrick indicated that nothing was paid for this sodium hydrosulfide material and asked Mr. Austin if he was, in fact paid for it. TR4 at 285. After initially testifying "[a]s far as I know, yes", Mr. Austin qualified that initial answer, saying that he "didn't negotiate the sale", stated that the Invoice RX 15 at CS 195 was a "reprinted invoice" the "we . . . try to recreate" and that he "could not say specifically" as it was "not an account that [he] handle[d] personally" and that he did "not know the answer to that." TR4 at EPA 285.

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[45] TR4 at 275, 276.

[46] *See*, RX 15 at 195, 196. RX 15 at 195 is an Invoice, on Chem-Solv Roanoke Virginia letterhead, which identifies a "Date Shipped" for this sodium hydrosulfide material as "10/6/2008" and RX 15 at 196 is a Bill of Lading for this same material, on Chem-Solv Rock Hill South Carolina letterhead identifying the net weight of the material as "447 pounds", comprised of "1 drum @ "118#'s" and "1 drum @ 329#'s".

[47] Mr. Austin actually estimated $75.00 (*see* TR4 at 276) --- but Complainant notes that $0.15 x 447 pounds = $67.05 and Mr. Austin indicated that the material, as virgin product, might sell for less than that amount.

In response to questioning by the Court, Mr. Austin testified that sodium hydrosulfide was "a clear yellowish product, not unlike really, really light-colored bleach" and that he did not know whether Chem-Solv bought more sodium hydrosulfide at times relevant to this proceeding. TR4 at 286 – 287. He further testified that he was unsure as to when the three partial drums of sodium hydrosulfide initially stored at the Facility as a result of a "drum-off" were all that Chem-Solv had left of this material, explaining that he "did not go through and look for those kinds of records." Mr. Austin suggested that "it is not something that would [have] been around for an extremely long period of time" and that "the condition of the drums and . . . and the label would indicate that it had not been sitting around a long period of time. . . ", but did not elaborate further on this un-supported opinion. TR4 at 287.

ix. Dr. Joseph Lowry (Rebuttal) Testimony

In rebuttal testimony, Dr. Joseph Lowry was re-called to testify regarding the product shelf life of sodium hydrosulfide. TR5 at 35 –43. Dr. Lowry initially explained that he was familiar with the concept of chemical product shelf life and explained that this concept referred to the fact that "certain chemical products degrade over time."[48] TR5 at 35. He acknowledged that while some chemical products degrade over time, others stay fairly stable for a long period of time." TR5 at 35.

With specific reference to sodium hydrosulfide, Dr. Lowry testified that it is a chemical product with a comparatively short shelf-life because it reacts with oxygen in the air to convert, initially, to elemental sulfur and then to sulfide as it oxidizes – which it does "readily." TR5 at 35 – 36. Dr. Lowry testified that the oxidation process effects the efficacy of sodium hydrosulfide as a product by decreasing the sulfide concentration over time. TR5 at 36. He

[48] As an example, Dr. Lowry noted that "bleach will turn into chlorine over time" and "roughly has a half-life of about six months." TR5 at 35.

explained that since sodium hydrogen sulfide is commonly used in wastewater treatment processes to precipitate heavy metals and in the pulp and paper industry to digest pulp, the "value of the product is having the sulfide there." TR5 at 36.

Dr. Lowry further testified that when sodium hydrosulfide is placed into contact with air, "there's carbon dioxide in air" and "[c]arbon dioxide is absorbed" and ultimately causes a conversion resulting in "a precipitation of sodium carbonate", which is a "formation of solid" or "settleable solids in suspensions" TR5 at 36 – 37. Dr. Lowry further testified that "[t]he more contact with air, the faster the reaction." TR5 at 38. He thus noted that "if you have a smaller volume of liquid in a drum, you're going to have more air in the drum" and that "[i]f you have a hole in the drum, you're going to have more contact with air." TR5 at 38. Dr. Lowry also testified that, based upon "published works" and work that he has done, the rate that sulfide degradation occurs in sodium hydrosulfide is "roughly 5 percent per month." TR5 at 37. He identified the half-life of sodium hydrosulfide as "411 days – roughly a year" so that if you start off with a 45% solution,[49] it would degrade to roughly 22% sodium hydrosulfide in a year if in contact with air" which he acknowledged is, in effect, half as much sulfides and half the efficacies as in the beginning. TR5 at 37 – 38.

On cross-examination, Dr. Lowry readily acknowledged that the rate of a sodium hydrosulfide oxidation reaction in a drum will decrease as the available oxygen in the drum decreases. TR5 at 39 – 40. He also confirmed that in a closed drum, the sodium hydrosulfide oxidation reaction will stop once all of the oxygen in the drum is consumed and in a partially filled drum a little more oxidation would occur. TR5 at 38 – 40. On re-direct examination, Dr.

[49] The leaking drum of sodium hydrosulfide that the VADEQ inspectors observed, smelled and photographed in the 1111 Industry Avenue warehouse on May 23, 2007 had an affixed Chem-Solv label identifying the contents as "Sodium Hydroxide 45%." *See* CX 19 at EPA 581.

Lowry further explained that, while the oxidation reaction in a closed drum of sodium hydroxide could consume all of the oxygen in the drum, if that drum were to be opened and re-closed one or move times, there would then be new oxygen in the drum and the sodium hydrosulfide oxidation process would continue. TR5 at 40 – 41.

Upon subsequent questioning by the Court, Dr. Lowry looked at photographs of the leaking drum of sodium hydrosulfide that the VADEQ inspectors observed, smelled and photographed inside the 1111 Industry Avenue Warehouse on May 23, 2007.[50] (TR5 at 41). In responding to the Court's inquiry about the "plastic type drum with a yellow substance", he informed the Court that he was familiar with the appearance of elemental sulfur and then noted that the oxidation of sodium hydrosulfide "would make elemental sulfur and it's a yellow color" and that the substance depicted in the photos also "has a yellow color." TR5 at 41. In further response to the Court, Dr. Lowry further acknowledged that the yellow substance depicted in the photographs of the leaking drum of sodium hydrosulfide could be considered to be consistent with, and "possibly could be" oxidized sodium hydrosulfide.

Dr. Lowry also responded to the Court's inquiry as to whether he could tell how long the material depicted in CX 19 at EPA 598 had been sitting there by virtue of its texture and consistency by commenting that "oxidation would be rapid . . . if [the material] is dripping down the side of a drum [because] you'd have a thin layer for the oxygen to penetrate [an] it would . . . start to happen immediately and when the water dried out, you'd see that yellow color." TR5 at 42.

Dr. Lowry concluded his testimony by advising the Court that nothing would happen in sodium hydrosulfide were to be mixed with caustic soda, but that if sodium hydrosulfide were to be mixed with and acid, like hydrochloric acid, a "toxic gas" that could cause death. TR5 at 42.

[50] Such photographs may be found in the record in CX 19 at EPA 593-601.

x. Scott Perkins (Rebuttal) Testimony

During his brief rebuttal testimony, Mr. Perkins was asked by Respondents' counsel to look at the photographs in CX 19 at EPA 593 and 595 (*i.e.*, the photograph of the leaking, dented and buckled drum of sodium hydrosulfide that the VADEQ inspectors observed, smelled and photographed inside the 1111 Industry Avenue Warehouse on May 23, 2007) and to opine as to why this drum might be "mashed in" and "compressed like that." TR5 at 44. Mr. Perkins responded by testifying that, in his experience, poly drums may become "compressed" or "a little bulged out" because of temperature variations. TR5 at 44 – 45. He then suggested that "there's pretty extreme temperature variations in the [Chem-Solv 1111 Industry Avenue] warehouse – in any warehouse" and that "as the temperature goes up, the gas expands in the drum" and "as the temperature goes down, the gas contracts . . . in the drum" causing the drum to "flex". He concluded his testimony by stating that a drum would flex "only if it's airtight." TR5 at 45.

b. The Sodium Hydrosulfide Content of the Leaking, Dented and Buckling 55- Gallon Drum in the Facility's 1111 Industry Avenue Warehouse on May 23, 2007 was a "Solid Waste" Because it was Being "Accumulated and Stored" at the Facility "Before or in Lieu of Being Abandoned by Being Disposed of"

40 C.F.R. § 261.2(b)(3) provides, in relevant part, that a material is a solid waste if it is "[a]ccumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned or incinerated." (*Emphasis supplied*).

All of the credible evidence in the record illustrates and establishes that the leaking, dented and buckling 55-gallon drum of sodium hydrosulfide observed by the VADEQ Inspectors inside the 1111 Industry Avenue Warehouse at the Chem-Solv Facility on May 23, 2007 was neither stored nor managed as a useable product or a valuable commodity at that time or at any time thereafter. The evidence also supports the conclusion that the contents of this drum were

improperly accumulated and stored at the Facility for an impermissible time period prior to final abandonment and disposition, as a D002/D003 corrosive and reactive hazardous waste, on February 20, 2008. There is absolutely no evidence in the record that the contents of this drum ever were determined to be a usable product by the Respondents or that the Respondents ever combined any of the content of this drum with any other usable sodium hydrosulfide product at the Facility prior to its off-site disposal, by Chem-Solv, as a hazardous waste.

In his brief opening statement at the Hearing, Respondents' counsel predicted that "it is the totality of the evidence that will lead us to the ultimate decision in this case". (TR1 at 18). In support of that axiom, the totality of the evidence supports a conclusion that this particular drum contained sodium hydrosulfide material that was being "accumulated and stored at the Facility in lieu of being abandoned by being disposed of" and establishes that such material was both a "solid waste" and a D002/D003 corrosive and reactive "hazardous waste" *at all such times*.

i. There is No Credible Evidence that the Content of the Leaking, Dented and Buckling 55-Gallon Drum of Sodium Hydrosulfide was a "Useable Product" on May 23, 2007 or Thereafter

Respondents have asserted that the leaking, dented and buckled container of sodium hydrosulfide observed by the VADEQ Inspectors in the Facility's 1111 Industry Avenue Warehouse on May 23, 2007 "was one of several partial drums of sodium hydrosulfide product that were in Chem-Solv's inventory at the property at the time" and that " the other partial drums of sodium hydrosulfide in Chem-Solv's inventory at the time of the Sampling Event were not noted by the EPA." Respondents' Pretrial Brief at 14. At the Hearing, Mr. Austin described the sodium hydrosulfide that the VADEQ inspectors observed at the Facility as "virgin material or not used material." TR4 at 275. He offered no basis or foundation for that representation other

than his own assertion that the inventory of sodium hydrosulfide at the Chem-Solv Roanoke, Virginia Facility in May of 2007 consisted, "to the best of [his] recollection, . . . [of] three partial drums[,] all heals from a bulk drum off." TR4 at 192.

Respondents' assertions find no support in the record and are contradicted by the actual evidence contained in the record. For example, in the May 18, 2007 portion of their Inspection Report, the VADEQ Inspectors identified one of the two "other" partially-filled drums of sodium hydrosulfide spray-painted with the letters "PD" on the side being stored at the Facility's 1111 Industry Avenue Warehouse "entry" area and of being advised, by Facility personnel, that "that particular drum is a 'partial drum' that was brought back to CS on a facility-owned truck by a customer." CX 19 at EPA 381. In the May 23, 2007 portion of their Inspection Report, the VADEQ Inspectors also identified "[a]nother drum . . . labeled "PD (indicating a partial drum, as previously explained by Mr. Lester[51]) and "'sodium hydrosulfide'" that Mr. Lester told them was "'RMA (Return Material Authorized)'"[52] and they reported his statement that he "doesn't know why they're here" and that he "did not know the origin or destination of many of these materials." CX 19 at EPA 389. (*Emphasis supplied*).

Such evidence strongly contradicts Mr. Austin's purported best recollection that the three drums of sodium hydrosulfide observed by the VADEQ inspectors at the Facility in May of 2007

[51] Mr. Austin subsequently testified that "PD, contrary to what has been testified to, does not designate material that has come back from a customer that is not a full drum. PD references part drum in a bulk packaging operation." TR4 at 169. Complainant notes, however, that Ms. Lohman did *not* testify or state in the VADEQ Inspection Report that she understood the term "PD" to mean anything other than "a partial drum, as previously explained by Mr. Lester." *See*, e.g. *CX 19 at EPA* 389. She did, however, report Mr. Lester's own statement that a particular drum labeled "PD" and in storage at the Facility on May 23, 2007 had been returned to the Facility by a customer. *See* CX 19 at EPA 381.

[52] At the Hearing, Mr. Austin explained that if a customer wished to return a material or product purchased from Chem-Solv to the Facility, Chem-Solv "would not just go in and pick it up" but initially would "investigate" by "sending the assigned sales representative out to the account to physically investigate, does it smell funny, or does it look funny, or is there something not exactly as we would expect it to be at the facility. And once that has been determined, we either pick it up or we don't." TR4 at 165 – 166. Mr. Austin confirmed that this "process by which we bring it back into our facility and that is called the Return Material Authorization Program, RMA." TR4 at 165.

all were "virgin material or not used material" from a "bulk drum-off" at the Facility. Rather, the evidence strongly indicates that at least two of the three drums of sodium hydrosulfide at the Facility in May of 2007 contained customer-returned (and possibly off-specification) sodium hydrosulfide material that was *not* from a Facility "drum-off". The evidence in the record also indicates that the content of one of these drums of sodium hydrosulfide customer returns "was hardening" and that Facility representatives explained to the VADEQ Inspectors that "if it was 'good,' the material would be put back into product inventory."[53] CX 19 at 381. Yet there is no evidence in the record to indicate that this container of sodium hydrosulfide, or any of the other containers of sodium hydrosulfide then at the Facility, ever were placed into "product inventory."

Respondent's paid expert, Scott Perkins, did testify that "the inventory records show there were a number of partial drums of sodium hydrosulfide."[54] However, no such contemporaneous inventory records were ever provided by the Respondents in their Prehearing Information Exchange or produced by them at the Hearing to substantiate this claim or to otherwise establish that ***any*** of the three drums of sodium hydrosulfide observed by the VADEQ inspectors at the Facility in May of 2007 actually were in the Facility's "product inventory" prior to, on, or after that date. Rather, the record in this proceeding contains *only*:

i. a subsequent October 6, 2008 invoice and a September 30, 2008 Bill of Lading for the two drums of sodium hydrosulfide that are not the subject of the EPA allegations in the Complaint, indicating that those materials subsequently were transported to a purported customer by the Respondents for "$0.00" and at "No Charge" RX 15 at CS 195, 196; TR4 at EPA 285; and

ii. a hazardous waste manifest confirming that the sodium hydrosulfide material in

[53] Respondents did not seek to refute or challenge this testimony or evidence at the Hearing or in any pre-hearing filing. Nor did they identify or call Mr. Cary Lester as a witness to challenge his statements to the VADEQ.

[54] TR3 at 181.

the drum at issue was disposed of, by the Respondents, as a D002/D003 corrosive and reactive hazardous waste, on February 20, 2008. RX 14 at CS 194.

In short, the uncontested evidence in the record establishes that the content of the leaking, dented and buckling container of sodium hydrosulfide observed by the VADEQ Inspectors inside the Facility's 1111 Industry Avenue Warehouse on May 23, 2007 was disposed of by the Respondents as a solid and a hazardous waste and that the other two drums of sodium hydrosulfide material that were then being accumulated and stored on-site subsequently were transported to a third party, at "No Charge" and at Respondents' own expense.

ii. The Content of the Leaking, Dented and Buckling 55-Gallon Drum of Sodium Hydrosulfide was Not Sold to a Customer

In their Answer to the Complaint, Respondents "deny that the sodium hydrosulfide drum observed by EPA on May 23, 2007 was shipped off site for disposal on February 20, 2008" and instead assert that "the sodium hydrosulfide drum referenced by EPA was not a waste, but a useable product that was sold to a customer." Answer at 4, ¶ 31. (*Emphasis supplied*). The Respondent's assertions are inaccurate, incorrect and at complete odds with certified statements previously made by Chem-Solv Vice President and General Manager Jamison G. Austin in his 2/6/08 IRL Response. In that certified response, Mr. Austin specifically responded to EPA's inquiries about the leaking drum of sodium hydrosulfide referenced on page 16 of the [VADEQ inspection] report[55] by stating, among other things, that:

a. . . . Sodium Hydrosulfide drum was segregated and checked for leak. Drum found not to be leaking and was relabeled[; and][56]

b. . . . Sodium Hydrosulfide disposal record is attached in attachment 11b.[57]

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[55] *CX 19 at EPA 387.*

[56] *CX 23 at 1078, Response 11.a. See also* Mr. Austin's similar Hearing testimony at TR4 at 272.

[57] *See* CX 23 at EPA 1096 – 1102.

The Uniform Hazardous Waste Manifest, No. 004172819JJK, submitted to EPA as Attachment 11.b to Respondent Chem-Solv's 2/6/08 IRL Response, is dated February 20. 2008 and identifies the accompanying waste as including one 55- gallon drum of "Waste sodium hydrosulfide solution" with waste codes "D002" and "D003". CX 23 at EPA 1097. Chem-Solv's own certified 2/6/08 IRL Response and the accompanying Attachment 11.b. submissions clearly de-bunk the Respondents' unfounded and specious claim that that the content of the leaking, dented and buckled container of sodium hydrosulfide observed by the VADEQ Inspectors in the Facility's 1111 Industry Avenue Warehouse on May 23, 2007 "was sold to a customer." The material was disposed of --- nearly 9 months later --- by the Respondents as hazardous waste.

iii. The Respondents Have Failed to Provide Any Documentation That the Sodium Hydrosulfide Material Being Accumulated and Stored at the Facility at the Time of the May 23, 2007 Inspection Was Not a Solid Waste

40 C.F.R. §261.2(f) is entitled "*Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation*" and requires, in relevant and applicable part, that:

> Respondents in actions to enforce regulations implementing Subtitle C of RCRA who raised a claim that certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material . . . (such as contracts which show that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation."

(*Emphasis supplied*). In the preamble to the proposed rule (initially proposed to be 40 C.F.R. § 261.2(d)), the Agency explained that such rule would "require[e] persons to keep whatever records (or alternative means of substantiation) are appropriate to document their claims that that they are not managing a solid waste or that their wastes are exempt from regulation because they

are being recycled in a particular way. The burden of proof rests with the person handling the material, so that failure to provide proof means that the person will be considered to be managing a solid waste or be subject to regulation." 48 *Fed. Reg.* 14472, 14492 (April 4, 1983) (*Emphasis supplied*).[58]

Respondents clearly were aware of the above-referenced 40 C.F.R. § 261.2(f) regulatory requirement at times prior to the May 2007 Facility inspections because they previously had received July 29, 2005 and November 9, 2005 VADEQ Warning Letters wherein VADEQ had cited this regulatory requirement and sought records from Chem-solv, pursuant to 40 C.F.R. §§ 261.2(e) and (f), pertaining to "hundreds of containers on-site . . . identified by the facility as 'DNI' (Do Not Inventory) or the containers were damaged and not suitable for shipment." CX 39 at EPA 1481, 1482; CX 40 at EPA 1508, 1509. In explaining the purpose of those Warning

[58] In the preamble to the Final Rule, EPA responded to adverse comments received regarding the proposed rule, which EPA adopted and made "final." EPA's response specifically addressed adverse proposed rule comments concerned with the subset of enforcement actions in which respondents may seek to claim that a particular secondary material is not a solid waste (or is conditionally exempt from regulation) because it was recycled in a particular manner and the proposed requirements that those respondents also would have the burden of proof to show that they were indeed recycling in that way. 50 *Fed. Reg.* 614, 642 (January 4, 1985). In its response to specific comments regarding assertions that hazardous wastes are being recycled, the Agency further explained, that: "[w]e think it appropriate, and the rule states explicitly, that the burden of proof (in the sense of both the burden of producing evidence and the burden of persuasion) is on the persons claiming that their hazardous secondary material is not a waste because it is within the terms of any of these exceptions. This provision, thus, restates the legal principle that parties claiming the benefits of an exception to a broad remedial statutory or regulatory scheme have the burden of proof to show that they fit the terms of the exception. *See, e.g. SEC v. Ralston Purina Co.*, 346 U.S. 119, 126 (1953) (exception to Securities Act registration requirements); *U.S. v. First City National Bank of Houston*, 386 U.S. 361, 366 (1967) (exception to merger provisions of Clayton Act): *Arnold v. Ben Knowsky, Inc.*, 361 U.S. 38, 393 (1960) (exception to Fair Labor Standards Act for retail sales); *Weyerhauser, Inc. v. Castle*, 590 F.2d 1011, 1040 (D.C. Cir. 1978).(burden of proof is on applicant for Agency-created fundamentally different factors variance)." *Id.* However, the Agency also explained its overall reasoning, noting that "[t]hese facts are within the special knowledge of the person accumulating the material" and that "[p]resumptions of this type have been upheld consistently when they further interpret a remedial statutory purpose, guard against harm to public health and safety, and where the facts to rebut the inference are particularly within the knowledge of the other party. *See Beth Israel Hospital v.NLRB*, 437 U.S. 482, 493, 502 (1978); *U.S. v. General Motors Corp.*, 561 F.2d 923, 924 (D.C. Cir. 1977) (Leventhal J. dissenting in part)." *Id.* The Agency further noted that " this type of claim is an affirmative defense, for which it is appropriate that the person asserting the defense have the burden of proof" and that "[t]his allocation of the burden of proof was affirmed in *American Petroleum Institute v. EPA*, 661 F.2d 340, 352, 354 (5th Cir. 1981)." *Id.* in its concluding remarks, the Agency reiterated that "[t]here is no formal recordkeeping requirement in the regulation. However, persons must keep whatever records or other means of substantiating their claims that they are not managing a solid waste because of the way the material is to be recycled.[] They also must show that they are not overaccumulating their secondary materials." *Id.* at 642 – 643.

Letters and the requests made under 40 C.F.R. § 261.2(f), Ms. Lohman testified that if certain materials weren't a part of the Facility's active inventory, VADEQ wanted to know if they were, instead, wastes. TR1 at 60 – 61. As a result, VADEQ requested that Chem-Solv "provide information to give us confidence that these [materials] in fact were not being speculatively accumulated or they were avoiding the cost of disposal by showing us how they were going to actually work this material back into their products." TR1 at 61. CX 39 at EPA 1481.

In this proceeding, Respondents' expert Scott Perkins testified, in his opinion, that the sodium hydrosulfide being accumulated and stored at the Facility in May of 2007 was not a solid waste for the reason that "it was not a discarded material . . .because it was product[,] it was a sale product, we saw a bill of sale for, and it was a pretty simple decision." TR3 at 180 – 181.[59] Respondents, however, failed to introduce any actual evidence to establish, pursuant to 40 C.F.R. § 261.2(f) requirements, that they ever had any *legitimate* "known market or disposition" for any of the sodium hydrosulfide stored at the Facility in May of 2007 or thereafter, or that a second person ever used any of that sodium hydrosulfide material "as an ingredient in a production process."

iv. The Respondents Have Not Demonstrated That They Had a "Known Market Or Disposition" for <u>ANY</u> of the Sodium Hydrosulfide Material Being Accumulated and Stored at the Facility on May 23, 2007 or Thereafter

At the time of the May 23, 2007 VADEQ Inspection of the Facility, Respondents, once again, were accumulating and storing drums "that were in deteriorated condition, that had illegible labels on them, that were corroded, that . . . had waste something or another printed on it . . . that would indicate that it was something other than their product material." TR1 at 126.

[59] Complainant previously has noted that such "Bill of Sale" actually indicates that the material was shipped off-site from the Facility at "No Charge" and for "$0.00." *See* RX 15 at CS 195.

One such drum was the leaking, dented and buckling container of sodium hydrosulfide observed by the VADEQ Inspectors in the Facility's 1111 Industry Avenue Warehouse. Other containers, in better condition, did not contain virgin product sodium hydrosulfide "heals" from a "Facility drum-off," as Respondents would have the Court believe, but customer-returned (and possibly off-specification) sodium hydrosulfide material of questionable use or value. *See discussion, infra.*

Whatever the Respondents' actual belief as to the efficacy and potential use of its sodium hydrosulfide inventory at the time of the May 23, 2007 Facility Inspection, the Respondents clearly found no immediate market or customer for the leaking, dented and buckling drum of sodium hydrosulfide at issue, which they finally disposed of as a hazardous waste nearly nine (9) months after the May 23, 2007 Facility inspection.[60] The Respondents also failed to establish that there was then, or at any other time, a "known market" for any of the other sodium hydrosulfide material then being accumulated and stored at the Facility. The only information in the record on this issue is:

i. Mr. Austin's unsupported testimony that a customer, C.H. Patrick Corporation, was first contacted about the potential purchase of this material in January or February of 2008[61] --- some eight (8) or nine (9) months after the inspection; and

ii. an Invoice and associated Bill of Lading establishing that two partial containers of sodium hydrosulfide were given away to that supposed customer for $0.00 and at "No Charge" --- some sixteen (16) months after the inspection.[62]

Such evidence falls woefully short of establishing a "known market" --- or any market whatsoever --- for: (i) the leaking, dented and buckling drum of sodium hydrosulfide stored at

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[60] *See* RX 14 at EPA 194.

[61] TR4 at 273 274. Mr. Austin also testified that Respondents had no documented record of any such contact or telephone call and that he did not participate in any such communication. TR4 at 275.

[62] RX 15 at CS 195-196.

the Facility between May 23, 2007 and February 20, 2008; (ii) the two partial drums of sodium hydrosulfide material in storage at the Facility through October 6, 2008; or (iii) for any, or all, of those materials individually or as a whole.

v. The Respondents Have Not Demonstrated That Any of the Sodium Hydrosulfide Material Being Accumulated and Stored at the Facility on May 23, 2007 Was<u>EVER</u> Used by Anyone as An Ingredient in a ProductionProcess

At the Hearing, the Respondents introduced no evidence to establish that any of the sodium hydrosulfide that they gave away and themselves transported from the Facility to C.H. Patrick Corporation ever was used by that company, or by anyone else, "<u>as an ingredient in a production process.</u>"[63] Mr. Austin did generally testify as to recalling that C.H. Patrick Corporation "used sodium hydrosulfide in a batching process, meaning they are not using it continually, every week, every month"[64] but the Respondents did not even provide any independent evidence to support that vague, unsubstantiated and self-serving "recollection." In fact, the limited contract documents (*i.e.*, the Invoice and Bill of Lading) that the Respondents did introduce into evidence at the Hearing are silent as to the purported or intended use of this material, if any. *See* RX 15 at CS 195, 196.

Based upon the lack of an evidentiary record, Complainant contends that the Respondents have failed to establish, pursuant to 40 C.F.R. § 261.2(f) requirements, that they *ever* had a "known market or disposition" for *any* of the sodium hydrosulfide material at the Facility in May of 2007, or that the purported customer that accepted certain of this material at "No Charge" and for "$0.00" cost ever actually used, or intended to use, any of that material as an ingredient in a

[63] *See* 40 C.F.R. § 261.2(f) requirements.

[64] TR4 at 192.

production process. The Respondents also failed to "demonstrate that the material is not a waste[65], or is exempt from regulation,[66]" per 40 C.F.R. § 261.2(f) requirements.

vi. The Content of the Leaking, Dented and Buckling 55-Gallon Drum of Sodium Hydrosulfide Was Not Identified as a "Product" In Any Contemporary Purchase or Inventory Record at the Facility

The record in this proceeding is replete with instances of VADEQ inspectors observing numerous materials and supposed products at the Facility that were being accumulated and stored by Chem-Solv in drums and containers described as in poor, corroded and questionable shape. One such instance, documented in a subsequent VADEQ Warning Letter, was on July 26, 2005. *See* CX 39. Ms. Lohman testified that, on that particular occasion, VADEQ:

> . . . noted hundreds of containers that were in questionable shape [such as] . . . holes in the sides of the drums . . . drums [that] were corroded. . . some [that] were opened and had just had plastic coverings on them[,] [s]ome [that] weren't labeled. When we would ask [Facility Operations Manager] Cary [Lester] about what was in those particular containers, he wasn't able to tell us . . . . Because of the way that these were set aside altogether, we had concerns as to whether they were legitimate products or not. In addition, we saw some of these markings we had seen before where they had been marked DNI meaning Do Not Inventory, and so these things had been taken out of their inventory. So, we asked the facility to go through and identify those things that are truly product and truly could be reworked . . . into their process, and then . . . identify those things which had lost value because of the way that they were being managed and could not be sold as they were without some sort of reclamation.[67]

TR1 at 53 – 54. *See also* CX 39 at EPA 1481, ¶ 1.

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[65] Rather, the Respondents have admitted that their discarded aerosol cans were a waste --- though they claim it to be a "non-hazardous waste"--- that they discarded in the regular trash at the Facility. Answer at 7, ¶ 46.

[66] Respondents appear to claim their discarded aerosol cans were "empty," pursuant to 40 C.F.R. § 261.7(b) and not subject to RCRA regulation pursuant to 40 C.F.R. § 261.7(a). They have neither documented these claims, as required pursuant to 40 C.F.R. § 261.2(f) requirements, nor can they possibly do so with respect to their discarded aerosol cans themselves, as the 40 C.F.R. § 261.7(a) exclusion applies only to "[a]ny hazardous waste remaining in" such aerosol can containers, and not to the containers themselves. See 40 C.F.R. § 261.7(a)(1).

[67] Ms. Lohman also testified that with regard to previously observed containers at the Facility that were labeled as "waste" (*e.g.*, containers marked as "pit waste", "waste oil" and "methylene chloride waste"), VADEQ asked the Facility to make and provide to VADEQ a waste determination for those materials (*i.e.*, "to make a full and proper waste determination meaning that they needed to consider the characteristics as well as potential listings either for the P or U listed materials."). TR1 at 55. CX 39 at EPA 1482 ¶ 2.A.

Ms. Lohman testified that VADEQ asked Chem-Solv to go through those containers and report their progress to VADEQ on a monthly basis, but that Chem-Solv failed to do so. TR1 at 54 – 55. CX 39 at EPA 1481 ¶ 1. She also testified that in the above-referenced Warning Letter, VADEQ made recommendations to Chem-Solv as to how they might better be able to establish that materials stored in containers at the Facility were not solid wastes subject to RCRA hazardous waste determinations, and that such recommendations included the "implement[ation of] a better inventory management system to -- to avoid the types of problems that we had observed during the inspection." TR1 at 59 – 60. CX 39 at EPA 1483. Ms. Lohman also recounted how Mr. Lester previously had explained to VADEQ representatives that Chem-Solv "didn't do a first in, first out type inventory. . . you would have inventory that would age . . . the drums would become weathered. They'd be exposed to rain. They would get damaged and the condition would just continue to degrade." As a result, Ms. Lohman explained VADEQ's belief that a better inventory management system might remedy some of these issues. TR1 at 59 – 60.

In this proceeding, it is the Respondents who claim that the leaking, dented and buckled container of sodium hydrosulfide observed by the VADEQ Inspectors in the Facility's 1111 Industry Avenue Warehouse on May 23, 2007 "was one of several partial drums of sodium hydrosulfide product that were in Chem-Solv's inventory at the property at the time . . . ." Respondents' Pretrial Brief at 14. Respondents, however, have introduced no Facility inventory records identifying any sodium hydrosulfide product as being purchased by the Facility, or as otherwise being identified and listed in the Facility's product inventory, in May of 2007 or at any time immediately before or after.

In fact, with respect to Chem-Solv's inventory recordkeeping system, Mr. Austin testified that "[i]t is impossible to go back . . . into our system and pick a particular day and say what was

the stock status on that day. Our system just doesn't . . . facilitate that." TR4 at 178. However, he subsequently explained that Chem-Solv was "working with Mr. Perkins to determine what products were or could have been in inventory during the times that we were reviewing . . . and [that he] provided Mr. Perkins with a purchase history of the entire time of every product we purchased."[68] TR4 at 178. (*Emphasis supplied*). Of course, Respondents neglected to include any such purchase history in their Prehearing Information Exchange or to introduce any such purchase history into evidence at the Hearing.

Mr. Austin testified that the three containers of sodium hydrosulfide observed at the Facility in may of 2007 were the left-over "heals" of a bulk "drum-off" of sodium hydrosulfide product. If that were true, one would anticipate and expect that Chem-Solv originally purchased a significant amount of the material and that such a purchase would necessarily appear and be identifiable in the Facility's purchase records and invoices, as well as its inventory records. Yet the Respondents have failed to produce, provide, or otherwise enter into evidence any such Facility's purchase, invoice, or inventory records. As a result, Respondents have failed to establish that any sodium hydrosulfide product was actually in Chem-Solv's "product inventory" in May of 2007 or thereafter. The record contrastingly establishes that these partial containers of sodium hydrosulfide material were returned to the Chem-Solv Roanoke, Virginia Facility by customers as part of the Facility's "Return Material Authorized" (or "RMA") Program[69] and that

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[68] Mr. Austin also stated that "[he doesn't] know exactly how Mr. Perkins and his colleagues interpreted all that information or processed all that information . . . but [he] ran a report, [he] exported that same report into an Excel file . . . that [Mr. Perkins and his colleagues] could sort it the way they wanted to sort it. TR4 at 178 – 179. In his prior testimony, however, Mr. Perkins failed to explain exactly what he and his colleagues did with such report, how they manipulated the data, what information they were able to reconstruct or derive from the report, how they reconstructed and/or derived that information, what legitimate conclusions they subsequently drew from such reconstructed information and what rationale they developed, if any, to support any such conclusions. TR4 at 178 – 179.

[69] *See* CX 19 at EPA 381, 389. During his testimony, Mr. Austin explained the Chem-Solv RMA Policy in the following manner:

the Facility Operations Manager "did not know the origin or destination" of such material. CX 19 at EPA 389. (*Emphasis supplied*).

vii. There is No Evidence in the Record to Support Respondents' Contention that the Content of the Leaking, Dented and Buckling 55- Gallon Drum of Sodium Hydrosulfide Was Combined with Other Drums of Usable Sodium Hydrosulfide Product

The record supports the contention that that two "other" partial containers of sodium hydrosulfide observed by the VADEQ Inspectors at the Facility in May 2007 were returned to the Chem-Solv Roanoke, Virginia Facility, by customers, as part of the Facility's "Return Material Authorized" (or "RMA") Program and that they were not "first quality unused product" as Mr. Austin would have the Court believe.[70] The record is devoid, however, of any evidence to support Respondents' contention, as made by Mr. Perkins in his Expert Witness Report (RX 30 at CS 311), that the partially-filled container of hardening sodium hydrosulfide material observed by the VADEQ Inspectors at the 1111 Industry Avenue Warehouse at the Facility on May 18, 2007[71] ever was tested by Chem-Solv Facility personnel, determined to be "good" and/or was placed back into product inventory. Similarly, there is no evidence in the record to support Mr. Perkins' associated claim that the contents of the leaking, dented and buckling drum (*i.e.*, the

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> If a customer purchases a product from us and . . . for whatever reason . . . something that would prompt them to . . .call us and say will you take this material back, will you come and pick it up[w]e would investigate and we would come and pick it up. . . . [I]f . . . we don't know . . . the origin of the product, et cetera, we would not just go in and pick it up. Even the material that we've sold to them has a process by which we bring it back into our facility and that is called the Return Material Authorization Program, RMA. And there are instances where a customer will say . . . this . . . smells funny . . . and we try to qualify smells funny, as best we can prior to initiating a pick up. Generally, we do that by sending the assigned sales representative out to the account to physically investigate, does it smell funny, or does it look funny, or is there something not exactly as we would expect it to be at the facility. And once that has been determined, we either pick it up or we don't. . . .

TR4 at 165 – 166.

[70] *See* RX 2 at CS003, ¶ 9. *Compare* CX 19 at EPA 389.

[71] *See* RX 19 at EPA 381.

drum Mr. Perkins refers to as being "viewed by the EPA") was ever "determined to be a usable product" or that it was ever "combined with other drums after having been determined to be a usable product[,]" as he asserts in RX 30 at CS 311.

The only contemporaneous evidence actually in the record as to the post-inspection disposition of the leaking, dented and buckling drum of sodium hydrosulfide herein at issue was provided by Chem-Solv Vice President and General Manager Jamison G. Austin --- the only fact witness identified or called at the Hearing by the Respondents to discuss the allegations in the Complaint pertaining to this drum and its sodium hydrosulfide content. In his "1st Austin Affidavit", Mr. Austin identifies himself as an individual "personally familiar with the facts and circumstances surrounding Chem-Solv's inventory of sodium hydrosulfide in 2007 and 2008."[72] Yet in complete contrast to Mr. Perkin's unsupported factual assertions and erroneous onclusions, Mr. Austin certified to EPA, in Chem-Solv's 2/6/08 IRL Response, that:

(i) this "Sodium Hydrosulfide drum was segregated and checked for leak. Drum found not to be leaking and was relabeled";[73] and;

(ii) this particular drum of sodium hydrosulfide was disposed as a D002/D003 hazardous waste under Uniform Hazardous Waste Manifest 004172819JJK, dated February 20, 2008.

CX 23 at 1078, Responses 11.a., 11.b.; CX 23 at EPA 1127.[74] *See also* TR 4 at 272 – 273. (*Emphasis supplied*).

Neither Mr. Austin's 2/6/08 IRL Response nor his testimony at the Hearing lend any support or credence to Mr. Perkin's erroneous conclusions and misleading contentions that the sodium hydrosulfide content of the leaking, dented and buckling partially-filled 55-gallon drum

[72] *See* RX 2 at CS003, ¶ 5.

[73] *See also* TR4 at 272.

[74] 2/6/08 IRL Response Attachment 11.b.

that is the subject of EPA's Count I allegations (or any of the other drums of sodium hydrosulfide then in storage at the Facility) was ever "determined to be a usable product" by the Respondents or that that this drum's contents were ever "combined with other drums" of sodium hydrosulfide then being stored at the Facility" for any purpose whatsoever.[75]

viii. The Content of the Leaking, Dented and Buckling 55-Gallon Drum of Sodium Hydrosulfide Was Not Managed as a Useable or Valuable Product at the Time of the Inspection --- or at Any Time Prior to Disposal

The credible evidence in the record establishes that the leaking, dented and buckling 55-gallon drum of sodium hydrosulfide stored by the Respondents in Chem-Solv's 1111 Industry Avenue Warehouse on May 23, 2007 was neither stored as a useable and valuable product nor managed in a commodity-like manner at that time or at any subsequent time. The evidence contradicts the Respondents' claim that the content of this drum was "virgin material or not used material" from a "bulk drum-off" at the Facility and illustrates the manner in which they allowed this material to oxidize, deteriorate and degrade, thereby further reducing its efficacy and eliminating any value it may, at one time, have possessed.

At all times relevant to the allegations in the Complaint, this sodium hydrosulfide material was stored and managed by the Respondents in a manner indicating that it was unfit for use or sale and had been abandoned by being accumulated and stored at the Facility in lieu of being properly and timely disposed of as a D002/D003 corrosive and reactive hazardous waste.

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[75] The two other drums of sodium hydrosulfide at the Facility were identified by Respondents as 600 pound partial drums containing 118 pounds and 329 pounds, respectively (and 447 pounds in total), of sodium hydrosulfide immediately prior to being given away to CS Patrick Corporation. *See*, RX 15 at CS 196 (9/30/2008 Bill of Lading). The Respondents also have identified the leaking, dented and buckling drum of sodium hydrosulfide that Chem-Solv shipped off-site as a hazardous waste as being a partial drum of that product. RX 2 at CS 003, ¶ 7. If the contents of any of these three drums were "combined" with one or both of the other such drums, as Mr. Perkins would have the Court believe, then the Respondents easily could have consolidated such contents into no more than two, and possibly only one, 600 pound (55-gallon) drum. Yet, in the end, Respondents still had three partial drums of purported sodium hydrosulfide "product" remaining in storage at the Facility despite the supposed *combination* of these materials. Respondents have failed to explain this implausible result.

(a) Respondents Ignored the Foul Odor -- and the Material Leaking -- From the Dented, Buckling and Leaking Drum of Sodium Hydrosulfide

Mr. Lohman testified as to identifying the leaking drum of sodium hydrosulfide as the source of a foul "rotten egg" odor in the 1111 Industry Avenue Warehouse and as to being able to see that yellow-colored sodium hydrosulfide had leaked onto, and below, the wooden pallet on which the drum of sodium hydrosulfide was being stored and onto the top of an open sodium hydroxide drum that being stored on a pallet immediately below the leaking drum of sodium hydrosulfide, where she could see the liquid pooling. TR1 at 131 – 132. The Inspection Report photos further substantiate her recorded observations and her testimony. *See* CX 19 at EPA 594, 596 – 601.

Ms. Lohman observed that "the sodium hydrosulfide drum was leaking and no one seemed concerned about the condition that the drum was in or the fact that the material had been released." TR1 at 134. Only after the VADEQ Inspectors asked Facility Operations Manger Cary Lester "to take care of it" did Mr. Lester have a fork lift operator come and remove the leaking drum from the 1111 Industry Avenue Warehouse. TR1 at 132 – 133.

(b) The Sodium Hydrosulfide in the Leaking and Structurally Compromised Container Was Not Being Managed in a Commodity-Like Manner at the Time of the Inspection

Ms. Lohman described the leaking drum of sodium hydrosulfide as a "black drum" with a "label identifying its contents" and with a "hazard class corrosive label on it." TR1 at 129 – 130. *See also* CX 19 at EPA 581. Photos of the leaking drum taken during the Facility inspection confirm that the drum was dented inward and in "compressed condition" in each of several

locations. CX 19 at EPA 581, 593, 595. Even the Respondents' own expert witness, Mr. Perkins, acknowledged that this drum was "mashed in" and "compressed." TR5 at 44.

The VADEQ inspection photos illustrate and confirm that some of the sodium hydrosulfide content of the drum had leaked onto, and below, a wooden pallet on which the drum was being stored and was pooling on the top of an open sodium hydroxide drum stored on a pallet immediately below. CX 19 at EPA 594, 596 – 601. Mr. Perkins attempted to offer an opinion to refute the obvious fact that the drum was leaking --- as established through the VADEQ Inspectors' contemporaneously recorded visual and olfactory observations, their clear and distinct photographic evidence and Ms. Lohman's supporting testimony --- claiming that the drum could not have been leaking because a drum would flex and buckle due to temperature variations "only if it's airtight."[76] TR5 at 45. Mr. Perkins neglected to mention, however, that repeated "flexing" of a poly drum, whether due to temperature variations or otherwise, will no doubt weaken and compromise the drum's integrity, causing seam separations, associated cracks and . . . leaks.[77]

In her Hearing testimony, Ms. Lohman not only testified as to her concerns that the sodium hydrosulfide drum was leaking or that no one at the Facility seemed concerned about the leaking condition of the drum or that its material content had been released. She also expressed legitimate concerns about how the material was handled when it was removed from the 1111 Industry Avenue Warehouse. These concerns were initially recorded in the VADEQ inspection Report and Ms. Lohman subsequently testified how the VADEQ inspectors' requested that

[76] Mr. Perkins attempted to explain that " in his experience, poly drums may become "compressed" or "a little bulged out" because of temperature variations and that "as the temperature goes up, the gas expands in the drum" and "as the temperature goes down, the gas contracts . . . in the drum" causing the drum to "flex". TR5 at 44 – 45.

[77] Mr. Perkins also neglected to offer any opinion as to what effect that storage in a warehouse with such extreme "temperature variations" might have on the efficacy of sodium hydrosulfide.

Facility Operations Manger Cary Lester take remedial steps to remove the leaking container of sodium hydrosulfide from the warehouse. She recounted how a fork lift operator assigned with that task caused some of the contents of both the leaking sodium hydrosulfide drum and the open drum of caustic soda to leak and "slosh[] off of the containers" leaving a "trail" and "residual" on the warehouse floor because he had neglected to clean, seal or overpack the drums before removing them. TR1 at 132 - 133. CX 19 at EPA 387, 602 – 605. Ms. Lohman further noted that none of the spilled materials were recovered or cleaned-up while the VADEQ inspectors were there. TR1 at 132 - 133. CX 19 at EPA 387.

Based upon these events and observations, Mr. Lohman testified that, in her estimation, the sodium hydrosulfide material in that leaking and compromised container was not being managed by Chem-Solv personnel in a commodity-like manner. She further highlighted that concern by noting that the leaking and dented container in which the sodium hydrosulfide was being stored:

> . . . couldn't be shipped . . . it couldn't be put into transportation under DOT regulations as it [was]. It didn't meet the shipping requirements for containers. So to me, it wasn't being managed in a commodity-like manner. . . ."

TR1 at 134.[78]

(c) Respondents Allowed the Sodium Hydrosulfide at the Facility to Oxidize, Thereby Reducing its Efficacy and Eliminating any Use or Value it May Once Have Had

During the Hearing, Respondents' counsel asked Mr. Perkins if his analysis or conclusions that sodium hydrosulfide stored at the Facility was a product might be affected if the drum in which it was stored "had a hole in it or a dent in it." TR3 at 182 – 183. Mr. Perkins

[78] Of course, Mr. Perkins offered his opinion that the sodium hydrosulfide being accumulated in this drum at the Facility would not be hazardous waste as long as the company had some intention to use or sell it in the future, but he notably included "credibility with the regulators" as one factor that would reflect upon that analysis. TR4 at 128.

initially responded by stating "No[], . . . not in the case of sodium hydrosulfide." TR3 at 183. His rational for that answer was based upon his comparative analysis to when a "leaking underground [storage] tank [has] a gas leak . . . that is bad [and] needs to be resolved . . . [b]ut the gasoline in the tank is still good." TR3 at 183.

In rebuttal testimony, Complainant's expert, Dr. Lowry, subsequently explained that sodium hydrosulfide is a chemical product with a comparatively short shelf-life that reacts with oxygen in the air and readily converts to elemental sulfur and then to sulfide. TR5 at 35 – 36. He explained how the oxidation process affects the efficacy of sodium hydrosulfide as a product by decreasing the sulfide concentration over time and that its value as a product is in its sulfide concentration. TR5 at 36. Dr. Lowry further explained that sodium hydrosulfide reacts with the carbon dioxide in air, absorbs that carbon dioxide and ultimately causes a conversion that forms settleable solids in suspensions. TR5 at 36 – 37. He testified the smaller the volume of liquid there is in a drum, the more air there necessarily will be in the in the drum and that "[i]f you have a hole in the drum, you're going to have more contact with air" and that greater contact with air causes a more accelerated oxidation reaction. TR5 at 38. Based upon published works and work that he has performed, Dr. Lowry testified that the rate that sulfide degradation occurs in sodium hydrosulfide is "roughly 5 percent per month" and that the half-life of sodium hydrosulfide is "roughly a year" so that a 45% solution[79] would degrade to roughly 22% sodium hydrosulfide – or half of its original efficacy -- in about a year if in contact with air. TR5 at 37 – 38.

Despite the short shelf life of virgin sodium hydrosulfide product when properly stored in a full drum with minimal air, Complainant notes that, even after the Respondents heeded the

[79] The leaking drum of sodium hydrosulfide that the VADEQ inspectors observed, smelled and photographed in the 1111 Industry Avenue warehouse on May 23, 2007 had an affixed Chem-Solv label identifying the contents as "Sodium Hydroxide 45%." *See* CX 19 at EPA 581.

VADEQ inspectors' requests that they remove the leaking, dented and buckling drum of sodium hydrosulfide from the 1111 Industry Avenue Warehouse, Mr. Austin subsequently informed EPA, in Chem-Solv's 2/6/2008 IRL Response, that the sodium hydrosulfide was not removed from that drum. Mr. Austin stated that the drum was segregated, found not to be leaking and was merely "relabeled." CX 23 at 1078, Response 11.b. He even reiterated this response in his Hearing testimony. *See*, TR4 at 272.

The credible evidence in the record establishes that the Respondents allowed the sodium hydrosulfide material at issue to remain in a partially-filled, compromised and leaking drum which could not legally be transported off-site to any customer under DOT regulations. Respondents thereby allowed the sodium hydrosulfide in that leaking drum to remain in contact with air, to further oxidize, lose efficacy and lose value from May 23, 2007 until the material was disposed of on February 20, 2008. And rather than combining the two *other* partial drums of sodium hydrosulfide in storage at the Facility --- which contained 118 pounds of sodium hydrosulfide and 329 pounds of sodium hydrosulfide, respectively[80] and easily could have been consolidated into one 55-gallon drum (which typically holds 600 pounds of such material),[81] thereby eliminating much of the air content and the associated oxidation process --- Respondents allowed the sodium hydrosulfide in those other containers to remain in contact with air and to continue to deteriorate and lose efficacy for an additional 16 months before giving that material away at "No charge" at at their own delivery expense on or about October 6, 2008. CX 15 at CS 196.

[80] *See* RX 15 at CS 196.

[81] *See, e.g.* the label on the leaking drum, which identifies the packaging as a "600# drum." CX 23 at EPA 581.

The evidence in the record indicates that the Respondents failed to take any action to prevent the sodium hydrosulfide material stored at the Facility from deteriorating further despite the fact that at least one of the two remaining containers of that material already was "hardening" at the time of the May 27, 2007 Facility Inspection, such that Chem-Solv was not, at that time, certain as to what they would do with it. CX 19 at 381. Chem-Solv personnel advised the VADEQ Inspectors that the material subsequently would be "tested" and if found to be "good" it would be put back into product inventory." CX 19 at 381. Yet such a statement by Facility representatives only confirms that the efficacy of the material was unknown to, and questioned by, Facility employees at that time and that this material accordingly was not then in "product inventory." The Respondents subsequently failed to provide any evidence indicating that they ever tested any of this material, made a legitimate determination that it was "good," or that they ever placed any of it into "product inventory".

Mr. Austin testified that, even in its virgin product state, sodium hydrosulfide is "not an expensive product." TR4 at 275. He also estimated that in 2008, virgin sodium hydrosulfide sold for "less than 20 cents a pound . . . probably less than 15 cents a pound." TR4 at 275, 276. In light of the inexpensive cost of virgin sodium hydrosulfide product and the dubious origin, poor container management and storage practices[82] and unknown efficacy of the three partial containers of sodium hydrosulfide then being stored at the Facility on and after May 23, 2007, Complainant respectfully suggests that the preponderance of evidence in the record clearly supports the conclusion that the material in each of those containers had no legitimate value to any potential customer, as a "product" or otherwise, and that the Respondents had no

[82] The sodium hydrosulfide at the Facility was stored in partially-filled containers (and not consolidated) that accelerated oxidation and degradation of the material and one the material at issue was stored in a leaking, dented and buckling drum of compromised integrity. *See* discussions and citations *supra*.

legitimate market for the sodium hydrosulfide in storage at the Facility on May 23, 2007 or at any time thereafter. Respondent has placed no credible evidence into the record to prove, or to credibly suggest, otherwise.

c. The Respondents' Handling and Management of the Leaking Drum of Sodium Hydrosulfide Supports a Conclusion that this Material Was Abandoned by Being Accumulated and Stored at the Facility by the Respondents in Lieu of Being Abandoned by Proper Disposal in Accordance with Applicable Hazardous Waste Generator Requirements

All of the available and credible evidence presented at the Hearing refutes both the Respondents "den[ial] that the sodium hydrosulfide drum observed by EPA on May 23, 2007 was shipped off site for disposal on February 20, 2008" and their alternative assertion that "the sodium hydrosulfide drum referenced by EPA was not a waste, but a useable product that was sold to a customer."[83] In the prescient words of Respondents' legal counsel, "the totality of the evidence" --- and the application of Environmental Appeals Board ("EAB") legal instruction and analysis --- do indeed lead us "to the ultimate decision in this case".[84]

The evidence and the law conspire to enable Complainant to establish, through the Respondents' poor handling and management practices, that the Respondents indeed "abandoned" the sodium hydrosulfide material herein at issue by accumulating and storing that material at the Facility (in a non-commodity-like manner that allowed the material to deteriorate, degrade and lose efficacy, and with no available or known market or disposition for such material) in lieu of proper disposal as a D002/DO03 hazardous waste in accordance with 40 C.F.R. § 262.34 generator requirements.

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[83] *See* Answer at 4, ¶ 31. *See also* TR1 at 18.

[84] *See* TR1 at 18.

The EAB decision in *Bil-Dry Corporation* provides numerous appropriate and valuable lessons that are directly applicable to the facts and the evidence at hand. In that case, the Bil-Dry Corporation ("Bil-Dry") was found to be storing numerous drums of unknown content at its facility and there was "overwhelming evidence that many of the drums at the facility were in terrible condition: rusted, uncovered, exposed to the elements, dangerously tilted and free of labels."[85] *Bil-Dry Corporation* at 602. The General Manager of the Bil-Dry facility indicated that he "did not have any records concerning the drums or their contents" and the EAB determined that he was "presumably the person responsible for on-site operations" and "would have known whether the materials in the drums were, in fact, used in Bil-Dry's production processes." *Id. at 599*. EPA had sampled the content of some of these drums and found that they exhibited a hazardous waste characteristic, but Bil-Dry disposed of the drums, including those alleged by EPA to contain hazardous wastes (*i.e.*, "Drums Nos. 2 -4"[86]), without determining their contents. *Id.* at 581. Bil-Dry nevertheless did dispose of these numerous drums and their contents, including Drums Nos. 2 – 4, as "hazardous waste[s]," but did not do so "until *after* the Region had requested detailed information regarding their contents" and then "informed the Region that it had disposed of the drums to avoid "getting into a dispute with EPA." *Id.* at 605. Bil-Dry also provided EPA with "records of analyses performed on the contents of the drums as part of the disposal process" and with the "Uniform Hazardous Waste Manifests for the disposal of these drums", which "list[ed] their contents as hazardous wastes and included their appropriate EPA hazardous waste numbers." *Id.*

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[85] Some of these drums were further described as "in poor condition, some with materials hanging out of the top and down the side" and being "extremely corroded." *In Re Bil-Dry Corporation, 9 E.A.D. 575 at 602 fn 30 (EAB 2001).*

[86] With respect to these particular drums, the EAB determined that, unlike many of the drums at the Bil-Dry facility, Drums Nos. 2 – 4 were *not* in poor condition. *Bil-Dry Corporation* at 602 .

At the *Bil-Dry Corporation* administrative hearing, Bil-Dry failed to call its General Manager as a witness but nevertheless argued that it could *then* identify the contents of Drums Nos. 2 -4 and that such contents were not wastes because they were raw materials that Bil-Dry utilized at the Facility.[87] *Id.*, at 599, 601. Bil-Dry then attempted to support its claim that the materials in these drums were useful raw materials by offering the testimony of the company's president, William Rodgers, who testified that he had "personally used" materials from the area of the facility where Drums Nos. 2 -4 were stored. *Id.*, at 601. The EAB took full notice, however, that the record was "devoid of evidence such as logs, purchase orders or receipts showing how Bil-Dry acquired and/or used the materials in Drums Nos. 2-4."[88] As a result, the EAB attached scant weight and little credibility to the company president's testimony, noting that the preamble to the federal rulemaking where the term "solid waste" initially was defined had specifically provided that:

> Records ordinarily are kept documenting use of raw materials and products * * *. The Agency consequently views with skepticism situations where secondary materials are ostensibly used and reused but the generator or recycler is unable to document how, where, and in what volumes the materials are being used and reused.

Bil-Dry Corporation at 601, citing 50 Fed. Reg. 614, at 638 (Jan. 4, 1985). (*Emphasis supplied*).

In *Bil-Dry Corporation*, the EAB rejected Bil-Dry's argument that a material is a useful product, and not a hazardous waste, as long as the company had some intention to use or sell it in the future. *Bil-Dry Corporation* at 601, *citing Starr v. Dep't of Envtl. Res.*, 607 A.2d 321, 324 (Pa. Commw. Ct. 1992) ("[T]he value-based analysis [that tires are not waste because they are a marketable commodity capable of being profitably recycled for various further uses] ignores the

[87] Bil-Dry specifically asserted that the materials in Drums Nos. 2-4 were "occasionally used" for "solvent, wall-paper paste and maintenance paints). *Bil-Dry Corporation* at 601.

[88] *Bil-Dry Corporation* at 601.

absurd result that a party could escape environmental regulations by simply declaring his waste has value."). Rather, the EAB concluded that:

> . . . if these [numerous] drums did, in fact, contain valuable raw materials, it seems that the pragmatic course of action would have been to properly label the drums, and/or repackage the material contained in corroded or damaged drums.

Bil-Dry Corporation at 605. (*Emphasis supplied*). For each of the above reasons, and in light of the actual evidence presented at the *Bil-Dry Corporation* administrative hearing, the EAB held that "Bil-Dry's handling of Drums Nos. 2 - 4 support[ed] the Presiding Officer's conclusion that they contained waste material" . . . and "hazardous waste." *Id.* at 605, 607.

In the present matter, Chem-Solv's Vice President and General Manager, Jamison G. Austin, maintains that the sodium hydrosulfide materials stored at the Facility from at least May of 2007 through February 20, 2008 and October 6, 2008, respectively, were "virgin product" in the form of partial drum "heals" from a bulk "drum off." Respondents, however, have provided no purchase or inventory records, logs or receipts for any of the sodium hydrosulfide material stored at the Facility during that time period despite expert witness Scott Perkins' claim that he had supposedly identified such material in the recreated Chem-Solv inventory records provided to him by Mr. Austin. In contrast to Mr. Austin's and Mr. Perkins' claims, the contemporaneously documented information that VADEQ Inspectors Elizabeth Lohman and Kim Thompson collected from the Facility Operations Manager and other Facility personnel charged with managing the sodium hydrosulfide material at the time of the May 18, 2007 and the May 23, 2007 Facility inspections indicates that this material was returned to the Facility by customers as part of Chem-Solv's "Return Material Authorized" program and that such material

was of questionable efficacy, use and value even at the time of these May 2007 Facility inspections.[89]

Chem-Solv certainly was not storing the drum of sodium hydrosulfide material herein at issue as a valuable product inside its 1111 Industry Avenue Warehouse at the time of the May 23, 2007 Facility inspection. The drum of sodium hydrosulfide in the Warehouse was dented, compressed and bucking in several areas, such that it did not meet DOT transportation requirements and standards. It was also leaking in a manner that allowed some of the sodium hydrosulfide to drip down the side of the drum and onto both a wooden pallet and to pool on the top of an open drum of caustic soda stored immediately below. While one would expect that the resulting foul odor of "rotten eggs' should have alerted Facility personnel to the leak and to the need for remedial action, the VADEQ inspectors reported that Facility personnel seemed and acted unconcerned. The subsequent manner in which Facility personnel addressed the situation caused both sodium hydrosulfide and caustic soda material to spill onto the Warehouse floor and create a trail of those liquid materials on the Warehouse floor and outside of the building, as Facility personnel had neglected to properly seal or overpack the leaking and open drums prior to transporting them from the Warehouse. Based upon these documented events, Complainant takes the position that the sodium hydrosulfide in the 1111 Industry Avenue Warehouse was not

[89] At the Hearing, the Respondents did not present or offer any testimony regarding Chem-Solv's 2007 or 2008 sodium hydrosulfide inventory management practices, despite specifically identifying both Jeremy Daniel Clark and Donald Wayne Tickle as Facility employees who Respondents would call upon to provide testimony "concerning Chem-Solv's management of its inventory of sodium hydrosulfide in 2008." Respondents' Initial Prehearing Exchange at 4-5, ¶¶ 10, 13. While Mr. Tickle was called as a witness by the Respondents at the Hearing, he offered no testimony regarding Chem-Solv's sodium hydrosulfide inventory management practices. Mr. Clark was not called as a witness by the Respondents. Former Chem-Solv employee and Facility Operations Manager, Cary Lester, was not even identified by the Respondents as a potential witness in Respondents' Initial Prehearing Exchange. As a result, the statements made by Mr. Lester and other Chem-Solv employees pertaining to the origins of, condition of, and concerns regarding the sodium hydrosulfide stored at the Facility in May 2007, as recorded by VADEQ Inspectors Elizabeth Lohman and Kim Thompson in the VADEQ Inspection Report (CX 19), went unchallenged by the Respondents and were un-refuted at the Hearing.

being stored or managed as a valuable product by Chem-Solv Facility personnel at the time of the May 23, 2007 Facility Inspection.

Upon its removal from the 1111 Industry Avenue Warehouse, Respondents maintain that the leaking, dented and buckling drum of sodium hydrosulfide was segregated, determined not to be leaking, and that it was re-labeled. There is no evidence, however, that Respondents ever repackaged this material into a container that could be transported safely, and legally, to an off-site customer (prior to its disposal off-site as a hazardous waste). Respondents further claim that because this particular drum and its contents were of such concern to the regulators, they elected to dispose of the material and that they did so, on February 20, 2007, under a uniform hazardous waste manifest that identified the material as D002 and D003 corrosive and reactive hazardous wastes, as those hazard characteristics are defined at 40 C.F.R. §§ 261.22 and .23.

Mr. Austin asserts, and Mr. Perkins dutifully concludes, that such sodium hydrosulfide material was always a useful product with a customer market and they both cite to the Facility's supposed "sale" of two other partial drums of sodium hydrosulfide to illustrate that point and to advance their argument that the material could not have been a "solid waste". The Bill of Sale and the Invoice of that transaction, however, fail to support the proposition that such sodium hydrosulfide material had any legitimate value. Rather, these documents establish that Chem-Solv gave away this material at "No Charge" and at its own transportation expense, with "$0.00" revenue accruing to Chem-Solv from the transaction. Complainant further notes that it took Chem-Solv more than 16 months after the May 2007 Facility inspection to find anyone willing to accept this material – even at no charge – such that Chem-Solv clearly has failed to establish that it had any "existing market" (or any legitimate market at all) for the sodium hydrosulfide material it had stored at the Facility in May of 2007 or at any time thereafter. Rather, the

evidence indicates that Chem-Solv took no additional action over that 16-month period to consolidate the contents of those two partial drums or otherwise reduce that material's contact with the excess oxygen and carbon dioxide necessarily present in these partially-filled drums so as to limit the further oxidation of this material, preserve whatever efficacy it may then have had and preserve any remaining use or value, if any at all, that it might still have had.

Chem-Solv's regulatory history indicates that it is loathe to dispose of anything when it might otherwise find an alternative way to make – or save -- a dollar by doing otherwise. Therefore, Complainant does not doubt that Chem-Solv harbored some vague and undefined intention or hope --- however unrealistic or unreasonable --- that it might be able to sell, reuse or "re-work" the material at some indefinite later date. But Chem-Solv's mere "declared intention" to do so does not make the sodium hydrosulfide material herein at issue a useful, valuable or saleable commodity. *See Bil-Dry Corporation* at 601, *citing Starr v. Dep't of Envtl. Res.*, 607 A.2d 321, 324 (Pa. Commw. Ct. 1992). The evidence in the record clearly establishes that it was neither useful, valuable nor saleable.

The poor condition of the (leaking, dented and buckling) container in which Chem-solv stored the sodium hydrosulfide material at issue and the manner in which Chem-Solv stored all of the sodium hydrosulfide observed at the Facility --- *i.e.*, in partial, un-consolidated containers that enabled and allowed such material to further oxidize, deteriorate and degrade, causing a significant loss in efficacy and eliminating any value the material may, at one time, have possessed --- together establish that the Respondents never managed the material at issue as a useful, valuable or saleable product or commodity. The Respondents' ultimate disposition of this material as a hazardous waste (and their subsequent transport of the remaining sodium hydrosulfide material off-site, at Chem-Solv's expense, for "$0.00 and at "No Charge" to the

recipient) conspire to establish that, at all times alleged by the Complaint, the Respondents had no "known market or disposition for the material . . . to demonstrate that the material is not a waste, or is exempt from regulation."

In light of the relevant and applicable RCRA regulatory requirements and provisions, Complainant avers that the evidence presented by the Parties at the Hearing fully establishes and confirms that the Respondents, Chem-Sov, Inc. and Austin Holding-VA, L.L.C.:

> (a) accumulated and stored sodium hydrosulfide material at the Facility in a leaking, dented and structurally deficient container from May 23, 2007 through February 20, 2008;
>
> (b) managed such material in a non-commodity-like manner that allowed it to deteriorate, degrade and lose all efficacy and value as a product;
>
> (c) continued to store this material on-site at the Facility over such time period with no legitimate or available "known market or disposition" for the material, within the meaning of 40 C.F.R. § 261.2(f);
>
> (d) "abandoned" this material in lieu of proper disposal, such that this material, at all such times, was a "solid waste" within the meaning and definition of 40 C.F.R. § 261.2(a)(2)(i) and (b)(3) and a "hazardous waste" exhibiting the D002 and DO03 characteristics of corrosivity and reactivity, within the meaning of 40 C.F.R. §§ 261.22 and .23; and
>
> (d) failed to manage such hazardous waste in compliance with the applicable hazardous waste generator accumulation requirements of 40 C.F.R. § 262.34.

3. Respondents Did Not Qualify for the Accumulation Exemption

Respondents did not have a permit or interim status for the Facility. Answer, ¶ 35. Respondents also did not qualify for the "accumulation" exemption to the permit requirement, found in 40 C.F.R. § 262.34.[90] This exemption allows a generator to temporarily accumulate

[90] The accumulation exemption is an affirmative defense, upon which Chem-Solv has the burden of proof, and thus technically Complainant has no obligation to address it unless raised in Respondents' Initial Brief. Complainant reserves the right to fully respond to the arguments Respondents make in their initial brief.

hazardous waste in certain types of units, including tanks and containers, so long as the generator complies with the various requirements of the exemption.

In determining compliance with this exemption, it is necessary first to determine the status of the generator based upon the generator's monthly volume of generation and total waste stored at one time. A generator may be a "conditionally exempt small quantity generator" for a given calendar month if the generator generates no more than 100 kilograms of hazardous waste in that month. A conditionally exempt small quantity generator's hazardous waste can be exempt from many of the requirements of the RCRA hazardous waste regulations pursuant to 40 C.F.R. § 261.5(b). However, in order to qualify for such an exemption, the generator may not accumulate on-site at any time 1,000 kilograms or more of hazardous waste. 40 C.F.R. § 261.5(g)(2). If the generator exceeds this 1,000 kilogram threshold,

> all of those accumulated wastes are subject to regulation under the special provisions of part 262 applicable to generators of greater than 100 kg and less than 1000 kg of hazardous waste in a calendar month as well as the requirements of parts 263 through 268, and parts 270 and 124 of this chapter, and the applicable notification requirements of Section 3010 of RCRA.

40 C.F.R. § 261.5(g)(2).

Under 40 C.F.R. § 262.34, a generator can normally accumulate hazardous wastes on-site for no longer than 90 days. 40 C.F.R. § 262.34(a). However, under 40 C.F.R. § 262.34(d), generators who generate greater than 100 kilograms but less than 1000 kilograms in a calendar month – or generators subject to the same requirements by accumulating more than 100 kilograms at one time under 40 C.F.R. § 261.5(g)(2) -- may accumulate for 180 days, subject to the requirements is that section. This includes, in relevant part, the requirement to comply with 40 C.F.R. § 262.34(a)(2) and (3). 40 C.F.R. § 262.34(d)(4). 40 C.F.R. § 262.34(a)(2) requires

that containers be marked with the date on which accumulation began, and 40 C.F.R. § 262.34(a)(3) requires that tanks holding hazardous waste be labeled with the words "Hazardous Waste." In addition, 40 C.F.R. § 262.34(d) includes the requirement that the quantity of waste accumulated on-site never exceed 6000 kilograms, 40 C.F.R. § 262.34(d)(1), and the requirement that the generator comply with the container requirements of 40 C.F.R. Part 265, Subpart I.[91] 40 C.F.R. § 262.34(d)(2).

Pursuant to 40 C.F.R. § 262.34(f), a generator who stores hazardous waste for greater than the applicable time limit or who accumulates hazardous waste in excess of 6000 kilograms is an operator of a storage facility and is subject to the full requirements of 40 C.F.R. Parts 264, 265 and 267, and the permit requirements of 40 C.F.R. Part 270.[92]

In this case, the Chem-Solv Facility is a storage facility pursuant to 40 C.F.R. § 262.34(f). On February 20, 2008, Chem-Solv shipped off-site 17,500 pounds of hazardous Pit sludge,[93] which converts to approximately 7,955 kilograms of hazardous waste. CX 23 at EPA 1127, First Set of Stipulations, ¶ 31. Most, if not all, of this quantity of hazardous waste had been stored at least since EPA's May 23, 2007 inspection. It is possible that some small portion of this amount was generated after May 23, 2007, but any amount so generated was likely to be very small, given the measures introduced by Chem-Solv to reduce the generation of waste into the Pit ,s*ee*, CX 21 at EPA 658, and the limited capacity of the Pit, which was already nearly full of sludge at the time of the May 23, 2007 inspection. *See, e.g.*, TR1 at 231-232.

[91] With two exceptions not here relevant.

[92] There is a potential temporary extension which may be granted under this section, there has been no evidence that such an extension has been granted in this case.

[93] Chem-Solv was also storing, for at least part of the time, a relatively small amount of hazardous waste in the one partial drum of waste sodium hydrosulfide, and a varying quantity of hazardous pit water, which is difficult to quantify on the facts before us.

The 7,955 kilograms of hazardous sludge shipped in February, 2008 provides significant leeway above the relevant both the 1000 kilogram and the 6000 kilogram cut-offs. In addition, Respondents were storing a considerable amount of additional hazardous waste: the two-foot depth of hazardous waste sand which was removed from the Pit in late January or early February, 2008. As discussed above, this significant quantity of hazardous waste was placed into a "hopper" instead of drums, and was thus not included in the 17,500 pounds of hazardous waste shipped off-site.

Even if the seven-foot-deep Pit was completely full at the end of January, 2008, the sand would have occupied approximately two-sevenths of the Pit and the drummed wastes five-sevenths. The volume of sand would thus be two-fifths (40%) of the volume of the drummed sludge. Assuming relatively equal densities, the sand would weight approximately 40% of the 7,955 kilograms of drummed sludge, thus adding approximately 3,182 kilograms, for a total of 11,137 kilograms of sludge on-site prior to the drums being shipped off on February 20, 2008. These calculations are obviously only rough approximations, but they demonstrate that the question is not even close. Whatever the exact number, it is clear that the amount of hazardous sludge on-site from May 23, 2007 to February 20, 2008 at all times exceeded 6000 kilograms by a large margin.

Assuming that the Chem-Solv facility generated no more than 100 kilograms of hazardous waste per month during this period, the facility would initially fall under the conditionally exempt small quantity generator provisions in 40 C.F.R. § 261.5. Because the facility accumulated greater than 1,000 kilograms of hazardous waste during the entire period, the waste at the Facility, pursuant to 40 C.F.R. § 261.5(g)(2), was subject to the provisions in Part 262 applicable to generators of greater than 100 kg and less than 1000 kg of hazardous

waste in a calendar month. However, Respondents violated several of those provisions. Respondents stored hazardous discarded sodium hydrosulfide in a container that was neither labeled as containing hazardous waste nor marked with the accumulation start date. TR1 at 113. CX 19 at EPA 581, 593, 595. Respondents stored hazardous waste in the Acid Pit, a tank that was not labeled as containing hazardous waste. TR1 at 103. TR3 at 12. Finally, Respondents violated the requirement in 40 C.F.R. § 262.34(d)(1), that waste accumulated on-site never exceed 6000 kilograms. Thus, pursuant to 40 C.F.R. § 262.34(f), the Facility was subject to the full requirements of 40 C.F.R. Parts 264, 265 and 267, and the permit requirements of 40 C.F.R. Part 270, as of at least May 23, 2007. Because Respondents did not have a permit for the Facility, they were in violation of 40 C.F.R. Part 270 and Section 3005(a) of RCRA, 42 U.S.C. § 6925(a) from at least May 23, 2007 until at least February 20, 2008.

4. Conclusion

For each of these reasons, Complainant respectfully seeks a judgment as to liability against the Respondents, and the award of an associated and appropriate, multi-day civil penalty, for the 40 C.F.R. § 262.34 hazardous waste generator storage without a permit violations alleged against the Respondents in Count I of the Complaint.

B. Count II – Failure to Make Required Hazardous Waste Determinations

1. Hazardous Waste Determination Requirements

The generator of a solid waste is required to determine if that solid waste is a hazardous waste in accordance with regulatory requirements set forth at – and the method set forth in – 40 C.F.R. § 262.11. Specifically, 40 C.F.R. § 262.11 provides that:

> A person who generates a solid waste, as defined in 40 CFR 261.2, must determine if that waste is a hazardous waste using the following method:

> (a) He should first determine if the waste is excluded from regulation under 40 CFR 261.4.
> (b) He must then determine if the waste is listed as a hazardous waste in subpart D of 40 CFR part 261.
>
> * * *
>
> (c) For purposes of compliance with 40 CFR part 268, or if the waste is not listed in subpart D of 40 CFR part 261, the generator must then determine whether the waste is identified in subpart C of 40 CFR part 261 by either:
>
> (1) Testing the waste according to the methods set forth in subpart C of 40 CFR part 261, or according to an equivalent method approved by the Administrator under 40 CFR 260.21; or
> (2) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.
>
> (d) If the waste is determined to be hazardous, the generator must refer to [40 C.F.R.] parts 261, 264, 265, 266, 267, 268, and 273 of this chapter for possible exclusions or restrictions pertaining to management of the specific waste.

In addition, 40 C.F.R. § 262.40(c) requires that the generator maintain records of "any test results, waste analyses, or other determinations made in accordance with [40 C.F.R.] § 262.11 for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage or disposal."

2. The Acid Pit

Although the waste entering the Acid Pit was generally a single stream, while in the Pit the stream separated into two distinguishable components. Each of these components would require a waste determination. Valid waste determinations were not performed for either stream.

Given the nature of the activities leading to the discharge of waste water into the Acid Pit, it is obvious that the waste stream is highly variable. Despite Mr. Perkins' protestations to the contrary, a company such as Chem-Solv, which handles such a huge variety of chemicals, can never be sure exactly what might be spilled on the Acid Pad.[94] A worker rinsing down the outside of a drum might not even know that he or she is inadvertently washing residue on the Pad into the Pit. While Mr. Perkins and Mr. Austin may believe that they know at all times exactly what does and does not occur on the Acid Pad, such a belief is naïve a best. Given the numerous spills and leaks documented by the VADEQ inspectors (s*ee, e.g.*, CX18 at EPA 335, 341; CX19 at EPA 376-377, 381-382, 387, 389, 416, 418, 420-424, 428, 432, 581, 593-605, 617-618, 634) it is safe to say that Chem-Solv's housekeeping is not perfect.

Given the broad range of possible contaminants at a chemical distribution facility, and the high potential for variability in the rinse water waste streams over time, it is hard to imagine a situation where "generator knowledge" alone would be sufficient to rule out the possibility of chemical contamination of the Pit. It is simply not reasonable to read EPA's sanctioning of the concept of generator knowledge to mean that the mere invocation of generator knowledge is sufficient to show that a waste is not hazardous. A determination based upon generator knowledge must have a sound basis, and, pursuant to 40 C.F.R. § 262.40(c), records documenting that sound basis must be kept. Given the variability of the waste stream, a waste determination for the streams in the Pit, whether by generator knowledge or by sampling or by some combination of the two, would logically have to be repeated over frequent intervals, unless and until the data collected provides a basis for concluding that the waste streams *never* are hazardous.

[94] As noted above, the weight of the evidence shows that the drain in the blend room was also connected to the Pit at the time of EPA's sampling, thus adding additional opportunities for hazardous contaminants to enter the waste streams.

a. Failure to Make Pit Water Hazardous Waste Determination

Respondents have never produced a record or any other evidence if a waste determination regarding the Pit water. VADEQ in fact asked Chem-Solv repeatedly to provide analytic results for the Pit water, but Chem-Solv never provided any such analysis. TR-1 at 26-27, 56-58, 65-66, 73-76; CX 39 at EPA 1482, ¶ 2.b.; CX 40 at EPA 1509, ¶ 2. Moreover, as discussed above, a single analysis would be insufficient to constitute a valid waste determination for a variable stream.

Mr. Perkins testified to a supposed investigation he conducted into the presence of tetracholorethene, trichloroethene and chloroform at the Facility. However, as discussed at length in Section V.A.1.a.iii of this Brief, the supposed inventory investigation was severely flawed. Moreover, this investigation cannot be considered even part of a waste determination, because Mr. Perkins was not hired, and thus the investigation not undertaken, until after the Pit had been emptied and removed from the ground. TR4 at 107-108. Further, this investigation related only to the three chemicals addressed, and did not address any of the myriad other chemicals present at the Facility which could potentially find their way into the Pit.

Evidence of a waste determination is within the control of the regulated entity, and thus Respondents, at the least, have a burden of coming forward with sufficient evidence to establish that a waste determination was performed. Having failed to produce such evidence with regard to the Pit water when asked by the state, and having failed to produce convincing evidence at the hearing, the Court should conclude that Respondents failed to perform a valid waste determination on the Pit water at any time.

b. Failure to Make Pit Sludge Hazardous Waste Determination

Chem-Solv did produce to EPA documentation which it claimed constituted a waste determination for the Pit sludge. In Chem-Solv's December, 2007 information request response, Chem-Solv claimed that Attachment 9 constituted a waste determination for the Pit sludge. CX 21 at EPA 659-660, 1015-1021. As discussed at length in Section V.A.1.a.ii(e) of this Brief, Attachment 9 documented sampling in 2006 which contained absolutely no indicia of reliability, and which may not have been sampling of the Pit Sludge at all. For the reasons discussed in Section V.A.1.a.ii(e), the 2006 sampling is not a valid waste determination for the Pit solids, nor should it be considered as a valid component of a waste determination.

As discussed above, Mr. Perkins' supposed investigation into the presence of tetracholorethene and trichloroethene at the Facility was unreliable, objectively inaccurate, and conducted after the Pit and the Pit sludge had already been removed. This investigation should not be considered as even part of a valid waste determination.

Mr. Perkins testified to his belief that generator knowledge with regard to the Pit sludge existed in 2006 and 2007. TR4 at 67. However, he does not identify any the basis for this belief. He does not identify any individual who performed a generator knowledge waste determination, and does not point to any record of generator knowledge being applied at all, much less a written record describing the basis for a generator knowledge determination. He does not identify any individuals whom he may have talked to about such a waste determination. He simply asks us to take it on faith that generator knowledge was

Mr. Austin also testified regarding generator knowledge. Mr. Austin testified that "as I understand," that generator knowledge was the basis of whatever information Mr. Lester provided to Shamrock, the contractor who received the 2006 waste. TR4 at 239. This

understanding was based upon what Mr. Austin "have heard here today and during this proceeding." TR4 at 239. However, Mr. Austin must have misunderstood the testimony, since no evidence was presented by Mr. Perkins or any other witness to the effect that Cary Lester performed a generator knowledge waste determination. Mr. Perkins, in fact, testified that he has seen Mr. Lester and had lunch with him, but did not discuss the "profile" contained in Attachment 9 to Respondents' information request response. TR4 at 84.

As with the Pit water, there is no written evidence describing a waste determination applying generator knowledge, and no credible evidence that any actual person performed such a waste determination. There is no evidence that generator knowledge could be reasonably used at all to exclude the large number of potential chemical contaminants which might end up in the Pit sludge.[95] When asked for evidence of a waste determination in an EPA information request, Chem-Solv's reply identified only the highly flawed 2006 sampling and analysis, which on its face does not even appear to relate at all to the Acid Pit. The Court should thus conclude that Respondents failed to perform a valid waste determination on the Pit sludge at any time.

3. Failure to Make Hazardous Waste Determinations on Discarded Aerosol Cans and Their Contents

a. Evidence in the Record

i. Complaint / Answer

In Count II of the Complaint filed in this proceeding, EPA alleges that "[o]n May 18, 2007 and again on May 23, 2007 used aerosol cans were in storage for disposal with regular trash at the Facility" and that "[f]rom at least January 1, 2006 until May 23, 2007, Respondent treated, stored and/or disposed of a solid waste, i.e., used aerosol cans, without performing a

[95] Including the many contaminants which actually did show up, at varying levels, in EPA's lab analysis. *See*, CX15.

hazardous waste determination on such solid waste. Complaint at 7 - 8, ¶¶ 43 and 44. EPA thereafter alleges that Respondents "failed to perform a hazardous waste determination, as required by 9 VAC 20-60-262.A. [,] which incorporates by reference 40 C.F.R. § 262.11 with exceptions not relevant herein, on solid waste it generated at the Facility. . ." and "violated 9 VAC 20-60-262.A. . . . by failing to perform a hazardous waste determination on solid waste generated . . . and treated, stored and/or disposed at the Facility . . . ." Complaint at 8, ¶¶ 45 - 47.

In their Answer to the Complaint, Respondents "admit[ed] that used aerosol cans were in storage for disposal with regular trash" at the Facility on May 18, 2007 and again on May 23, 2007. Answer at 6, ¶¶ 44. Respondents, however, claim that such used aerosol can waste was "stored lawfully" and that they "disposed of used aerosol cans that had been characterized by Respondents and determined to be non-hazardous waste." Answer at 6, ¶¶ 44, 45. Respondents further claim, in their Answer, that:

> ". . . the allegations in Paragraph 45 [of the Complaint] are also premised on the erroneous assumption that the aerosol cans observed by EPA on May 18, 2007 and May 23, 2007 were not subject to a hazardous waste determination. To the contrary, the aerosol cans observed by EPA had been determined by Chemsolv to be a non-hazardous waste."

Answer at 7, ¶ 46. (*Emphasis supplied*).

ii. Photographic Evidence

During the several May 15, 18 and 23, 2007 EPA and VADEQ inspections of the 1111 and 1140 Industry Avenue portions of the Facility, the VADEQ inspectors took numerous indoor and outdoor photographs. *See* CX 19 at EPA 390 – 641.

On May 15, 2007, the VADEQ Inspectors took several photographs of the Facility's Flammable Liquid Storage Pad. CX 19 at EPA 426 – 432. In one particular photo, seven

individual aerosol spray cans clearly are visible sitting atop 55-gallon drums that were then being stored at that Facility location. CX 19 at EPA 428.[96] Four of the wholly visible aerosol spray cans depicted in this photo have their caps removed and appear to be in current use at the Facility. Three of the aerosol spray cans have their caps in place and each cap is a different color (*i.e.*, red, white and black). At least four of the aerosol spray cans (three of the cans without caps and the one with the black cap) appear to have product labels which are similar, if not identical, to other product labels present on aerosol cans observed and photographed by VADEQ and/or EPA inspectors: (i) in the trash at the Container Destruction Area of the Facility[97] on May 18, 2007 (CX 19 at EPA 529, 530); (ii) in the trash inside of the shed located in this same area of the Facility on May 23, 2007 (CX 19 at EPA 620[98]); (iii) inside of the shed located at that same area of the Facility, as photographed by the EPA inspectors on May 18, 2007 (CX 18 at EPA 354; CX 19 at 612); and (iv) at the Acid Wash Pad of the Facility, near the Pit, as photographed by the EPA inspectors during their May 18, 2007 Facility inspection (CX 18 at EPA 359).

Another of the aerosol spray cans located in the Flammable Liquid Storage pad area of the Facility on May 15, 2007 (*i.e.*, the can with a red cap and the number "76" visible on the front label) clearly contains a product different from other aerosol spray cans observed at the Facility's Blend Room, Flammable Liquid Storage Pad, Container Destruction Area and Acid Wash Pad during the course of the May 2007 EPA/VADEQ Facility inspections. *See* CX 19 at EPA 428. *Compare to* CX 17 at EPA 308, 309, CX 19 at EPA 529, 530, 612, 620 and CX 18 at

[96] Several of the same aerosol spray cans visible in this photo also may be seen in CX 19 at EPA 426. One is also visible in CX 19 at EPA 427.

[97] The VADEQ Inspectors also refer to this area as the "Tote Destroying/Cutting area" in captions that accompany the photographs they took at this area of the Facility. *See, e.g.*, CX 19 at EPA 528 – 530.

[98] In the accompanying caption, the VADEQ inspectors describe this photo as a "[v]iew inside a tote holding saw dust/residual waste mixture. Note aerosol can to right."

EPA 354, 359. One of two aerosol spray cans (*i.e.*, the silver aerosol can located in front of the box in which the blue-labeled aerosol can is sitting) inside of the shed at the Facility's Container Destruction Area also is different from the other aerosol spray cans photographed there and at these other areas of the Facility. *See*, CX 19 at EPA 612. *Compare to* CX 17 at EPA 308, 309, CX 19 at EPA 428, 529, 530, 620 and CX 18 at EPA 354, 359. The aerosol spray cans with the black and white caps that were present at the Facility's Flammable Liquid Storage Pad on May 15, 2007 appear to be of similar size, but with the label of one can obscured, the best that can be said upon review of this photo (CX 19 at EPA 428) is that if these cans contain paint products, they are likely to be of a different color and/or composition.

Based upon the photographic evidence collected by the EPA and VADEQ Inspectors during their May 2007 Facility inspections, it is apparent – and not surprising – to learn that Chem-Solv uses a variety of aerosol can products at the Facility and that some products appear to be used in greater quantities than others.

iii. Respondents' IRL Response

In a RCRA Section 3007 2/4/08 IRL sent to Mr. L. Glen Austin, President, Chemicals and Solvents, Inc., EPA inquired as to Chem-Solv's use, management and disposal of used aerosols generated at the Facility. Specifically, EPA therein made inquiry as to Chem-Solv's management and disposal of used aerosol cans at the Facility at the time of the May 18, 2007 and May 23, 2007 VADEQ Facility inspections and requested that Chem-Solv submit copies of any and all associated waste determinations. CX 22 at EPA 1066 and EPA 1067, ¶ 12.[99] In question

[99] On page 2 of its 2/4/08 IRL, under the heading "Requested Information", EPA made clear that questions 1 – 12 "refer[red] to the Virginia DEQ observations on May 18, 2007 and May 23, 2007". CX 22 at EPA 1066. In question 12 of that 2/4/08 IRL, EPA requested information as to how used aerosol cans at the Facility were then managed and disposed of , and for "any and all waste determinations for all aerosol cans used at the Facility". CX 22 at EPA 1067, ¶¶ 12.a, 12.b and 12.c.

12 of that 2/4/08 IRL, EPA specifically requested information as to how "used aerosol cans" at the Facility were then "managed" and "disposed of" , and for the submission of "any and all waste determinations for all aerosol cans used at the Facility". CX 22 at EPA 1067, ¶¶ 12.a, 12.b and 12.c.

Chem-Solv's response to the 2/4/08 IRL was provided to EPA by Chem-Solv's Vice President and General Manager, Mr. Jamison G. Austin, in a written and certified 2/6/08 IRL Response.[100] In responding to EPA's inquiry regarding the "management" of used aerosol cans at the Facility, Mr. Austin stated that "Aerosolv Model 5000 Aerosol Can Recycling Solution is used to process all aerosol cans." CX 23 at 1078, 1079, ¶ 12.a. (*Emphasis supplied).* In response to EPA's inquiry regarding the "disposal of" of used aerosol cans at the Facility, Mr. Austin further stated that "[e]mpty aerosol cans are discharged in regular trash disposal after processing with Aeroslv 5000." CX 23 at EPA 1079, ¶ 12.b. (*Emphasis supplied*). In response to EPA's final inquiry seeking the submission of "any and all waste determinations for all aerosol cans used at the Facility," Chem-Solv failed to make any such submission, but Mr. Austin provided the written answer "N/A" to indicate "not applicable" in his 2/6/08 IRL Response. CX 23 at EPA 1079, ¶ 12.c.

In that 2/6/08 IRL Response, Mr. Austin made no reference to, or claim that, either Chem-Solv or the Facility had any "policy" in place pertaining to the use, management or disposal of used aerosol cans generated at the Facility. *See* CX 23 at 1078 - 1079, ¶¶ 12.a, 12.b and 12.c. No such "policy" was referenced within, or provided to EPA as a submission with, Respondent Chem-Solv's 2/6/08 IRL Response. *See* CX 23.

[100] Respondent Chem-Solv's 2/6/08 IRL Response, CX 23, was submitted to EPA along with the accompanying sworn statement of Mr. Jamison G. Austin, Vice President and General Manager of Respondent Chem-Solv, certifying the truth and accuracy of the response. CX 23 at EPA 1084-1085.

iv. Affidavit of Jamieson G. Austin

In the 1st Austin Affidavit, Mr. Austin states that he is "personally familiar with Chem-Solv's policy for disposing empty aerosol cans." RX 2 at CS 006 ¶ 27. (*Emphasis supplied*). Mr. Austin further acknowledges that "[a]t the time of the Inspection and Sampling Event, it was Chem-Solv's policy that employees only dispose of completely empty aerosol cans in the trash." RX 2 at CS 006, ¶ 28. (*Emphasis supplied*). Mr. Austin therein states that it was also Chem-Solv policy to ensure that: aerosol cans with some contents left in them "were [ ] used until such contents were completely gone"; and in the event that an aerosol can became inoperable, with contents still remaining, "to return such defective cans to the appropriate supplier or retailer for credit or exchange." RX 2 at CS 006, ¶ 29.

Respondents thus acknowledge and admit, in the 1st Austin Affidavit, that purportedly "empty" aerosol paint cans routinely were disposed of in the trash by Chem-Solv Facility employees. Respondents claim that such disposal was part of a Facility policy that "was clearly communicated to all employees who use aerosol containers" and that this policy was in place at all times relevant to the Count II allegations in the Complaint. RX 2 at CS 006, ¶¶ 27, 28. In that 1st Austin Affidavit, however, Mr. Austin also states that "[t]his policy was based on Chem-Solv's understanding that empty aerosol cans are, in fact, nonhazardous." RX 2 at CS006, ¶ 28. Finally, Mr. Austin states, in his sworn affidavit, that Chem-Solv's policy included the use of all aerosol can contents "until such contents were completely gone" and to return defective aerosol cans that became inoperable with remaining contents "to the appropriate supplier or retailer for credit or exchange." RX 2 at CS 006, ¶ 29.

v. Expert Witness Report of Scott Perkins, P.E.

In his Expert Witness Report, Mr. Scott Perkins states that:

> The EPA has alleged that Chem-Solv, Inc. did not properly characterize aerosol cans that they observed in a solid waste receptacle. This is not accurate. Chem-Solv, Inc. previously determined that aerosol cans emptied of their content using standard means (e.g., depressing the spray nozzle until nothing more comes out) met and meet the RCRA definition of "empty" as defined in 40 CFR 261.7 (Exhibit 18). Chem-Solv, Inc. determined that each relevant element of the "empty" definition [of 40 C.F.R. § 261.7] had been satisfied. Personnel had been instructed to only deposit fully empty aerosol cans into the solid waste receptacles. Any non-empty aerosol cans were used until they were, in fact, empty, or, in the case of an inoperable aerosol cans, they were returned to the vendor (Exhibit 2).

RX 30 at CS 311. Complainant notes that the **only** citation provided by Mr. Perkins in support of his above conclusions is *RX 2* --- the 1st Austin Affidavit.

vi. Testimony of Elizabeth Lohman

Consistent with VADEQ Inspection Report photographs, Ms. Lohman testified in her direct examination that, on May 18, 2007, she and Ms. Thompson observed aerosol cans in an area of the Facility located at 1111 Industry Avenue and referred to as the Tote Destruction Area.[101] TR1 at 119; CX 18 at EPA 529, 530. She explained that the aerosol cans depicted in photographs attached to the VADEQ inspection report (CX 19) at pages EPA 529 and 530 were in a cut-off tote on top a pile of saw dust that had been added to liquid from old or returned containers in order to solidify the waste. TR1 at 119, 120. Ms. Lohman testified that she did not know if the aerosol cans depicted in CX 19, at pages EPA 529 and 530, were empty at the time of the May 18, 2007 Facility inspection. TR1 at 120. She also testified that she asked Mr. Lester about employee written training materials and procedures, but that he was unable to provide her with any training materials that could have been used to train personnel when aerosol can containers could be considered RCRA empty. TR1 at 120.

During her cross-examination, Ms. Lohman further testified that the aerosol cans that she testified about during her direct examination were present at the Facility during both the May 18,

[101] This area is referenced variously as the "Container/Tote Destruction Area", the "Tote Destroying/Cutting Area" and other similar names throughout the Record in this proceeding.

2007 and the May 23, 2007 VADEQ Facility inspections. TR1 at 178. She also explained that she visually examined these aerosol containers during those inspections and testified that she did not touch the aerosol cans during either of those two Facility inspections because they were "sitting in a sawdust that was saturated with chemicals" and she did not have personal protective equipment with her during these inspections. TR1 at 178. Ms. Lohman also testified that VADEQ follows EPA policy and guidance regarding aerosol cans. TR1 at 178 - 179.

vii. Testimony of Kenneth J. Cox

During his cross-examination at the hearing, Mr. Cox was asked whether he had personally observed any aerosol cans during his inspection of the Facility on May 15, 2007. TR3 at 77. He responded by stating that he "actually saw quite a few aerosol cans that day" but that he was not then "concerned at that time about minor waste streams" but "was trying to make determinations of larger volumes [of waste]". TR3 at 77. Mr. Cox further testified that the aerosol cans observed at the Facility and documented by VADEQ inspector photographs on May 18 and May 23, 2007 "were actually there on the 15th [of May, 2007]" in what he was "told was a waste container and that is when [he] inquired about the can[s]." TR3 at 77, 78. Mr. Cox also candidly acknowledged that the only evidence relating to the presence of aerosol can containers in the solid waste trash at the Facility are the photographs of those aerosol cans now in the record. TR3 at 78.

viii. Testimony of Scott Perkins. P.E.

Respondents' expert, Mr. Scott Perkins, testified at the hearing that:

> Typically if you throw away an aerosol can that is not empty, there is a really good chance it could be hazardous waste. Because of either ignitability, or reactivity, which are two of the four characteristics for hazardous waste definition. It might be ignitable typically because of the contents or because of the propellant[, w]hich often times is ignitable. It might be reactive because of the pressure[,] and the reactivity definitions a[re] more qualitative definitions, not a quantitative definition. But it might react

> strongly to an initiating force, or some other force. Non empty cans can be hazardous waste.

TR3 at 184. Mr. Perkins did further testify and explain that:

> Virginia[']s stance on [] empty aerosol cans in 2007, was the same as the EPA stance in 2007 on empty aerosol cans. And there is a whole flood of information that the EPA has put out in the form of fact findings and other documentation that clearly states [that it is] up to the generator to make decision as to whether it exhibits one of the hazardous waste characteristics. Typically either [i]gnitability or reactivity.

TR3 at 185.

In other testimony, Mr. Perkins attempted to explain the general process involved in performing a hazardous waste determination to the Court by referring to "three concentric circles."[102] TR4 at 6. He explained that:

> . . . the outer concentric circle is the first criteria that you have to evaluate . . . [i]s [it] a discarded material? And as I said yesterday, a discarded material is one that has either been abandoned, recycled, is inherent waste-like . . . . If it is a discarded material, then you have to evaluate whether or not it is a solid waste. A solid waste is the second concentric circle. And the solid waste determination is based on a discarded material that is not otherwise excluded [under 40 C.F.R. § 261.4][103], and there is a whole array of exclusions in the regulations. . . . And then if it is a discarded material that has not been excluded, it is a solid waste. If it is a solid waste that meets one of the hazardous waste criteria, [one of the characteristic or] listed waste descriptions, then it is a hazardous waste in the center of the bulls eye.

TR4 at 6 – 7.

Mr. Perkins testified that he applied the above-referenced concentric circle analytical process to the rinsewater contents of the subsurface tank, or "Pit" at the Facility and to the drum of sodium hydrosulfide, which are each alleged to be hazardous wastes in the Complaint. TR 3 at 179 - 181; TR4 at 6 – 9. Mr. Perkins did not, however, testify as to having performed any such analysis with regard to the Facility's discarded aerosol can waste stream(s).

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[102] His initial explanation in this regard can be found at TR3 at 179-180. He subsequently corrected prior inaccuracies in that testimony, and elaborated further on this issue, at TR4 at 6-9.

[103] Mr. Perkins testified specifically about the 40 C.F.R. § 261.4 regulatory exclusions at TR4 at 8-9.

Subsequent to his above testimony, Mr. Perkins failed to provide any (fact or expert opinion) testimony as to whether Respondents' representatives had ever determined, or taken any steps to determine, if any of the aerosol can waste generated by the Respondents at the Facility --- including unused residual liquid product(s) remaining in aerosol cans upon discard, compressed gas propellant(s) remaining in aerosol cans upon discard, or the aerosol cans themselves, when discarded --- were ignitable or reactive. Moreover, Mr. Perkins also failed to provide any fact or expert testimony as to whether Respondents' representatives had ever determined, or taken steps to determine: (i) if any such discarded aerosol can wastes exhibited a hazardous characteristic other than ignitability or reactivity, as described in 40 C.F.R. Part 261, Subpart C; or (ii) if any such wastes were listed hazardous wastes, as identified in 40 C.F.R. Part 261, Subpart D; or (iii) if any such wastes were acute hazardous wastes, as listed in 40 C.F.R. §§ 261.31 or 261.33(e).[104]

Mr. Perkins also failed to provide any testimony as to whether, to his knowledge, the Respondents had ever made any actual determination that any of the specific aerosol can waste containers generated by them at the Facility were "empty", within the meaning and description of 40 C.F.R. § 261.7(b)(1), (2) or (3). Mr. Perkins failed to inform the Court whether the Respondents had ever taken any steps, followed any process or applied any particular knowledge of methodology to actually "determine" whether any of the aerosol can containers that were used and then discarded at the Facility were, in fact, "empty" because those aerosol can containers had been: (i) removed of their waste contents through common practices and

[104] If the Respondents used only aerosol paint products at the Facility, it is unlikely that the contents of those aerosol can containers would be an "acute" hazardous waste upon discard or disposal. However, Respondents have provided no purchase receipts, invoices or other documentation as to the type or nature of the aerosol can products used at the Facility, such that the record in this proceeding is devoid of any information that can be used to rule out the possibility that aerosol cans discarded at the Facility contained acute hazardous wastes residues.

contained no more than 2.5 centimeters or residue or no more than 0.3 percent by weight of the total capacity of the container, as required pursuant to 40 C.F.R. § 261.7(b)(1); or (ii) removed of their compressed gas propellant contents, by use or by being opened to the atmosphere, such that the pressure in the container approached atmospheric pressure, pursuant to 40 C.F.R. § 261.7(b)(2).[105]

The above notwithstanding, Mr. Perkins concluded that ". . . with regards to the aerosol cans, [Respondents] knew everything there was to know about those cans that they needed to make a waste characterization." TR4 at 60. However, Mr. Perkins did not, thereafter, provide or reference any documented support for this conclusion. Nor did he provide any information or testimony indicating *what* the Respondents purportedly knew about the Facility's aerosol can waste stream or *what information*, in particular, provided them with "everything there was to know" in order to make a waste characterization. He also provided no testimony that identified the results of any purported aerosol can waste stream characterizations undertaken by the Respondents and failed to explain how Chem-Solv personnel purportedly went about determining whether discarded aerosol cans were, if fact, "empty" and why they "deemed" such discarded aerosol cans to be "non-hazardous".

Mr. Perkins did additionally testify that the Respondents "had a policy in place to not throw out the non-empty aerosol cans and to only throw out the empty aerosol cans which they deemed to be non-hazardous." TR4 at 60 – 61. However, he provided no testimony or other

[105] Intact aerosol cans which contain 40 C.F.R. § 261.31 or 261.33(e) acute hazardous wastes are not capable of being "triple rinsed" or of having an remaining acute hazardous waste(s) "equivalently removed" so as to meet the 40 C.F.R. § 261.7(b)(3) "empty" criteria, and so must always be managed as hazardous waste by any non-residential entity generating and discarding such aerosol can waste. Complainant notes, however, that Respondents provided no evidence that they, or Facility employees or management, ever performed a 40 C.F.R. § 262.11 waste determination on any aerosol can wastes generated at the Facility to, in fact, determine whether any of the aerosol cans discarded in the regular trash at the Facility contained an acute hazardous waste and was subject to RCRA regulatory storage and disposal requirements.

source of information to explain how he determined that such a policy was actually in place at the Facility during the 2006 and 2007 calendar years.[106] Such testimony would have been particularly relevant given his acknowledgment, on the record, that he and his firm were not retained by Chem-Solv to do work in this proceeding at the Facility until some time between June and August of 2008. TR4 at 107.

In response to subsequent inquiries by the Court, Mr. Perkins did testify that he and his firm looked at everything that was in Chem-Solv product inventory and that he did not recall seeing aerosol cans or the contents of aerosol cans on the list. TR4 at 120 – 121. He also testified that, after performing a self-described thorough review of "every piece of paper in the record" that he was not aware of any written policy on aerosol can use, management or disposal being in place back in the year 2006 and that he has no knowledge of any current written policy pertaining to those issues (*i.e.*, well after violations in this matter are alleged to have occurred). TR4 at 131-132.

Mr. Perkins agreed that if a generator disposing of aerosol cans makes a hazardous waste determination the aerosol cans are "RCRA empty" and bases that determination on "generator knowledge," in order for such determination to be "reliable or valid," the generator must have written training procedures in place so that the generator is able to make sure that his employees

[106] Complainant notes that Mr. Perkins' testimony is replete with demonstrated instances of "willful ignorance", not the least of which concerns his inexcusable and "apparent" failure to interview Mr. Cary Lester, the Facility Operations Manager at all times relevant to the violations alleged in the Complaint, and the individual whom the Respondents have acknowledged "[wa]s the only employee with training and authority in the area of hazardous waste" and who "was the company coordinator and the keeper of records" at the time of the violations alleged in the Complaint. CX 21 at EPA 657, ¶ 4.a. Mr. Perkins testified that Mr. Lester was known to him and lived in his neighborhood, that the two of them had previously had lunch together, that he was familiar with Mr. Lester's work history. TR4 at 84, 130. He also testified that Mr. Lester had worked for his company for two years before he worked for Chem-Solv, but that he did not recall if his company had provided any environmental training to Mr. Lester. TR4 at 130. Yet given the his professed friendship with Mr. Lester and the easy access that he had to him (given the admitted close proximity of their homes), Mr. Perkins never provided any testimony, prior witness statements or other written material that would indicate that he had ever attempted to interview or discuss with Mr. Lester any of the issues which were the subject of the current litigation and which Mr. Perkins and his firm were hired to remedy.

are, in fact, properly implementing such knowledge. TR4 at 130 – 131. Mr. Perkins also testified that because a generator "can't control what every worker does every day" he has "to have a system of checks and that is a formal inspection program, or reiterating the policy to employees". TR4 at 131. Mr. Perkins thereafter stated that it was his "understanding" that Chem-Solv had communicated to its employees the "concept that . . . we don't throw away non empty cans, if it is a dud, if it is half through, and you can't finish using it because the nozzle breaks, we don't throw that way, we give it back to the vendor." TR4 at 131. However, the only support for that testimony in the record is in the 1st Austin Affidavit. *See* RX 2 at CS 006, ¶¶ 28, 29. No Facility employee who ever had occasion to use any aerosol can products was called by the Respondent to verify, support or confirm this statement.

Mr. Perkins testified that he knows of no formal training program at the Facility pertaining to environmental compliance and covering the disposal of aerosol cans and that he has no knowledge of whether the issue of aerosol can disposal was even discussed by Facility personnel at routine safety meetings. TR4 at 132. He further testified that "[a] formal program needs to be developed" and when the "mov[e] from Building 1140 to 1111" is finally completed and everything "settles down", that "is going to be the perfect time to say -- okay, now we have got a stasis, let's put in writing the things that need to happen." TR4 at 133.

ix. Testimony of Jamison G. Austin

At the Hearing, Mr. Austin testified that cans of aerosol spray paint, primarily black or white, were used at the Facility "to touch up the paint on reconditioned drums that were . . . filled before they went out to customers." TR4 at 249. He testified that Chem-Solv "would generally buy cases of that [aerosol spray paint] from Walmart" but that aerosol cans were not inventoried at the Facility and that Chem-Solv did not have any written protocol on aerosol can management

at the time of the alleged violations. TR4 at 249. However, Mr. Austin further testified that management had certain "expectations" regarding aerosol spray paint usage at the Facility and such "expectations" and associated directions were communicated to Facility employees "very clearly". TR4 at 250.

Mr. Austin also testified that the Facility's purported aerosol spray paint program, and the associated directions purportedly provided to Facility personnel, focused solely upon the effort to control and avoid the "over-usage" of spray paint because the associated costs were "unrecover[able]" from Chem-Solv's clients. TR4 at 250-251. In that regard, Mr. Austin specifically stated that:

> . . . the cases [of spray paint] were not just available to our operators to use anytime . . . . [Operators] were required to come to the plant manager, operation manager, to request additional spray cans of paint and that was in a controlled effort, or an effort to control the, quite frankly, the overuse potential of spray paint."

TR4 at 250. In Mr. Austin's own words, Chem-Solv's aerosol spray paint program at the Facility "was controlled and managed to maximize the usage of our aerosol cans and spray paint." TR4 at 250-251.

b. Applicable EPA RCRA Guidance on Aerosol Cans

Aerosol cans consist of as many as three different types of materials with the potential to be classified as solid and a hazardous waste: 1) the liquid product contained in the can; 2) the gaseous propellant contained in the can; and 3) the can itself. The manner in which aerosol cans are managed by a generator necessarily will determine whether aerosol can wastes are excluded from RCRA regulation or are subject to the full range of hazardous waste requirements.

When the federal RCRA regulations initially were promulgated in 1980, EPA took the position, in associated guidance, that the hazardous waste regulations applied to the contents of

an aerosol can, but not to the can itself. *See*, RCRA Online[107] (hereinafter designated by the abbreviation "RO") 12020 (December 30, 1980 - *SUPERSEDED*) (Letter from EPA to Lawrence W. Beirlein, Esq., Council for Safe Transportation of Hazardous Articles, "Aerosol Cans, RCRA Regulation of"; PPC No. 9432.1980(01)). However, EPA revised its position regarding aerosol cans in 1987. At that time, the Agency concluded, and issued guidance stating, that even empty aerosol cans could exhibit the D003 hazardous characteristic of "reactivity" (defined at 40 C.F.R. § 262.23) because even a RCRA empty aerosol can "may still contain propellant, making the cans reactive if put in contact with a strong initiating force (*i.e.*, intense pressure or heat)", as set forth at 40 C.F.R. § 261.23(a)(6). RO 13027 (September 1, 1987)(RCRA/Superfund Hotline Monthly Summary, "Aerosol Paint and Solvent Cans Demonstration of Reactivity"; RPPC No. 9441.1987(77)).

EPA has indicated that it is not able to make a categorical determination on whether various different types of aerosol cans, containing a wide range of products, are reactive; therefore the Agency has stated that it is the responsibility of the generator to determine if an aerosol can is hazardous in accordance with 40 C.F.R. § 262.11. RO 11806 (January 4, 1994)(Letter from Michael H. Shapiro, Director, Office of Solid Waste to Mr. Michael C. Campbell, Katec Incorporated, "Regulatory Status of Waste Aerosol Cans"; RPPC No. 9442.1994(01)), RO 14235 (May 19, 1997) (Letter from Elizabeth A. Cotsworth, Acting Director, Office of Solid Waste to T.L. Nebrich, Jr., Technical Director, Waste Technology Services, Inc., "Clarification of Reactivity Characteristic as it Pertains to Aerosol Cans"; RPPC No. 9443.1997(01)). If an aerosol can is determined to be hazardous and is destined for

[107] EPA receives requests from the regulated community and others for interpretive guidance on how to apply the RCRA regulations in a variety of specific factual scenarios. The Agency issues regulatory guidance in response to these requests, in the form of applicability determinations and other opinions. Many such documents are available for public review on the Internet at http://www.epa.gov/rcraonline; http://www.epa.gov/epawaste/index htm , http://yosemite.epa.gov/osw/rcra.nsf/Documents/and related sites.

disposal, it is regulated as a hazardous waste, though punctured cans that are recycled are not regulated due to the RCRA scrap metal exemption.[108] *See,* 40 C.F.R. § 261.1(c)(6).

If a generator elects to dispose of an aerosol can rather than recycle it, EPA has instructed that the generator must make a hazardous waste determination for the can itself *and* for its liquid and gaseous propellant contents. *See*, RO 11782 (October 7, 1993)(Letter from Jeffrey D. Denit Acting Director, Office of Solid Waste to Mr. Gregory L. Crawford, Vice President Recycling Operations, Steel Recycling Institute, "Regulatory Status of Used Residential and Commercial/Industrial Aerosol Cans"; RPPC No. 9442.1993(02)), RO 11806. A discarded aerosol can will itself be subject to RCRA regulation as a hazardous waste if:

(1) it is not "empty" as defined under 40 C.F.R. § 261.7 and it exhibits one or more of the hazardous waste characteristics identified in 40 C.F.R. Part 261, Subpart C; or

(2) it contains residues of any commercial chemical product listed in 40 C.F.R. § 261.33(e) or (f) and is not, therefore, "empty" (since it cannot be "triple rinsed" or otherwise cleaned to achieve "equivalent removal" pursuant to 40 C.F.R. § 261.7((b)(3)); or

(3) the can itself exhibits any of the characteristics of hazardous waste identified in 40 C.F.R. Part 261, Subpart C (*i.e.*, reactivity).

See, e.g., RO 13225 (September 30, 1988)(Letter from Sylvia K Lowrance, Director, Office of Solid Waste to Kurt E. Whitman, Project Coordinator SWInc., "Aerosol Cans, On-Site Depressurization of"; RPPC No. 9432.1988(04); RO 14656 (December 1, 2002)(RCRA, Superfund & EPCRA Call Center Monthly Report, "Regulatory Status of Solvent Residue from Spray Cans"; EPA Pub. No. EPA530-R-02-005l). See also, RO 13027; RO 11806.

[108] However, it is very important to note that this exemption applies only to the punctured can itself; any liquids and propellants removed from the aerosol cans are subject to regulation and management as hazardous wastes if they are listed or if they exhibit a characteristic. *See*, RO 11782 (October 7, 1993)(Letter from Jeffrey D. Denit, Acting Director, Office of Solid Waste to Mr. Gregory L. Crawford, Vice President Recycling Operations, Steel Recycling Institute, "Regulatory Status of Used Residential and Commercial/Industrial Aerosol Cans"; RPPC No. 9442.1993(02)).

In order for an aerosol can legitimately to be disposed of as a non-hazardous waste, EPA has stated that the generator must determine that:

(1) the can is either "empty", within the meaning of 40 C.F.R. §§ 261.7(b)(1) - (3), or its remaining contents are not hazardous; and

(2) the can itself does not exhibit a 40 C.F.R. Part 261, Subpart C, hazardous characteristic.

See RO 13027; RO 11782. (*Emphasis supplied*).

EPA's position, and the instruction and guidance that it has provided to the regulated community, as summarized above, is based upon the regulatory requirements, provisions and related analysis identified and set forth below.

c. Relevant and Applicable RCRA Regulations and Hazardous Waste Determination Requirements

The relevant regulatory requirements and provisions applicable to the potential RCRA regulation of used and discarded aerosol cans are set forth in 40 C.F.R. Parts 261 and 262, and are as follows.

i. Definition of Solid Waste

40 C.F.R. § 260.10 provides that the definition and meaning of "*solid waste*" is set forth at 40 C.F.R. § 261.2. 40 C.F.R. § 261.2(a)(1) provides, in relevant and applicable part, that "[a] *solid waste* is any discarded material that is not excluded under [40 C.F.R.] § 261.4(a) or that is not excluded by a variance granted under [40 C.F.R.] §§ 260.30 and 260.31 or that is not excluded by a non-waste determination under [40 C.F.R.] §§ 260.30 and 260.34." 40 C.F.R. § 261.2(a)(2)(i) further provides, in relevant and applicable part, that "[a] *discarded material* is any material which is: (A) [a]bandoned, as explained in paragraph (b) of this [40 C.F.R.] section [261.2]. 40 C.F.R. § 261.2(b) thereafter provides, in relevant and applicable part, that

"[m]aterials are solid wastes if they are *abandoned* by being: (1) [d]isposed of. . . ." (*Italics in original*.)

ii. 40 C.F.R. § 262.11 Hazardous Waste Determination Requirements

The generator of a solid waste is required to determine if that solid waste is a hazardous waste in accordance with regulatory requirements set forth at – *and the method set forth in* – 40 C.F.R. § 262.11. Specifically, 40 C.F.R. § 262.11 provides and prescribes that:

> A person who generates a solid waste, as defined in 40 CFR 261.2, must determine if that waste is a hazardous waste using the following method:
> (a) He should *first* determine if the waste is excluded from regulation under 40 CFR 261.4.
> (b) He *must then* determine if the waste is listed as a hazardous waste in subpart D of 40 CFR part 261.
> * * *
> (c) For purposes of compliance with 40 CFR part 268, or if the waste is not listed in subpart D of 40 CFR part 261, the generator *must then* determine whether the waste is identified in subpart C of 40 CFR part 261 by either:
> (1) Testing the waste according to the methods set forth in subpart C of 40 CFR part 261, or according to an equivalent method approved by the Administrator under 40 CFR 260.21; or
> (2) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.
> (d) If the waste is determined to be hazardous, the generator must refer to [40 C.F.R.] parts 261, 264, 265, 266, 267, 268, and 273 of this chapter for possible exclusions or restrictions *pertaining to management of the specific waste*.

(*Extra emphasis supplied*).

d. Applicability of "Solid Waste" Regulatory Determination Requirements to Used and Discarded Aerosol Can Containers and Their Contents

Each of the following regulatory requirements and provisions, potential regulatory exceptions and exclusions, as set forth in 40 C.F.R. Part 261, are relevant and applicable to any person who seeks to determine if a solid waste aerosol can that he has generated is a hazardous waste, or is excluded from regulation or from management as a RCRA regulated hazardous waste, pursuant to 40 C.F.R. § 262.11 methodology.

i. An Aerosol Can that is "Disposed of" is both a "Container" and a "Solid Waste"

Pursuant to 40 C.F.R. § 260.10, a "*container"* is defined to mean "any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled." An aerosol can clearly meets the 40 C.F.R. § 260.10 definition of a *container* since it is a device in which a commercial material or product (*e.g.*, paint) is stored and handled.

Absent the applicability of any 40 C.F.R. § 261.4(a) exclusion, any 40 C.F.R. § 260.30 or § 260.31 variance exclusion, or any non-waste determination under §§ 261.30 and 261.34, an aerosol can container that is "disposed of" also meets the 40 C.F.R. § 261.2(a)(1) definition of a "*solid waste*" because the aerosol can container <u>itself</u> is a *discarded material* that has been *abandoned* by being "disposed of" within the meanings and definitions of 40 C.F.R. §§ 261.2(a)(2)(i)(A) and (b)(1).

ii. The Contents of "Disposed" Aerosol Can Containers also are "Solid Wastes"

The remaining *contents* of a "disposed" aerosol can container (*e.g.*, paint, propellant, etc…) also are "*solid wastes*", within the meaning of 40 C.F.R. § 261.2(a)(2)(i)(A), absent any such 40 C.F.R. § 261.4(a) exclusion, 40 C.F.R. § 260.30 or § 260.31 variance exclusion, or 40 C.F.R. §§ 260.30 and 260.34 non-waste determination, because such contents also are *discarded materials* that have been *abandoned* by being "disposed of". 40 C.F.R. § 261.2(a)(1)(A).

(a) 40 C.F.R. § 261.4 "Solid Waste" Exclusions Do Not Apply to Discarded Aerosol Can Containers or Their Contents

Pursuant to 40 C.F.R. § 262.11 methodology, a generator should (though he is not required to) <u>*first*</u> determine if the solid waste he has generated is excluded from regulation as a hazardous waste pursuant to 40 C.F.R. § 261.4. If no such exclusion applies (or upon failure to make such a determination), he *must determine* if the solid waste is listed as a hazardous waste in

40 C.F.R. Part 261, Subpart D. If the solid waste is not listed as a hazardous waste in 40 C.F.R. Part 261, Subpart D, the generator *then must determine* if the solid waste exhibits a hazardous characteristic identified in 40 C.F.R. Part 261, Subpart C *either by testing* the waste according to a method set forth therein (or an equivalent method approved under 40 C.F.R. § 260.21) *or by applying knowledge of the hazardous characteristic of the waste* (in light of the materials or the processes used). 40 C.F.R. §§ 261.11(a), (b) and (c). (*Emphasis supplied*).

As noted above, 40 C.F.R. § 261.4(a) contains a list (and a description) of twenty-five types of materials that "are not solid wastes for the purpose of" 40 C.F.R. Part 261. 40 C.F.R. § 261.4(b) thereafter contains a list of seventeen types of "solid wastes which are not hazardous wastes." 40 C.F.R. § 261.4(c) identifies several types of "hazardous waste which are exempt from certain regulations" until the waste exits the unit in which it was generated (including hazardous waste generated in a product or raw material storage tank, a product or raw material transport vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit). 40 C.F.R. §§ 261.4(d), (e) and (f) pertain to exclusion of various different sample materials and 40 C.F.R. §§ 261.4(g) pertains to "dredged material that is not a hazardous waste."

None of the above 40 C.F.R. § 261.4 regulatory exclusions apply to solid (or hazardous) aerosol can container waste, nor do the Respondents make any claim that such exclusions apply to such waste.

(b) 40 C.F.R. §§ 260.30, .31 and .34 Case-By-Case Non-Waste Determinations and Solid Waste Variance Classifications Have Not Been Applied for, or made, Made as to Any of the Respondents' Aerosol Can Waste Streams

The non-waste determination and solid waste variance classification provisions set forth at 40 C.F.R. §§ 260.30, .31 and. 34 provide standards, criteria and procedures for applicants to

apply to the EPA Administrator and seek RCRA regulatory applicability variance exclusions (for recycled materials or solid wastes) and non-waste determinations (for recycled materials or hazardous secondary materials) on a case-by-case basis.

In the present case, there is no evidence in the record, nor is there any reason to believe that the Respondents have ever applied to the EPA Administrator for a 40 C.F.R. § 260.30 (recycled material) or § 260.31 (solid waste) variance exclusion, or a 40 C.F.R. § 260.30 (recycled material) or 260.34 (hazardous secondary material) non-waste determination, with respect to any of the discarded aerosol can wastes (or for any solid waste, recycled material or hazardous secondary material) generated and stored at the Facility prior to disposal. There is also no evidence in the record that any such variance exclusion or non-waste determination has ever been issued to the Respondents for any aerosol can waste, or for any solid waste, recycled material or hazardous secondary material generated at the Facility and the Respondents have not claimed any non-waste determination and solid waste variance classification for any material at issue in this proceeding.

e. Applicability of "Hazardous Waste" Regulatory Determination Requirements to Used and Discarded Aerosol Can Containers and Their Contents

40 C.F.R. § 262.11(d) provides that if the generator of a solid waste, applying the methodology and the sequence of steps prescribed pursuant to 40 C.F.R. §§ 261.11(a), (b) and (c), determines that the generated solid waste is, in fact, a hazardous waste, he ***must then*** consult 40 C.F.R. Parts 261, 264, 265, 266, 267, 268, and 273 for possible regulatory exclusions (or restrictions) pertaining to management of his *specific waste*. (*Extra emphasis supplied*).

i. The 40 C.F.R. § 261.5 "Special Requirements" Do Not Even Relieve Conditionally Exempt Small Quantity Generators From RCRA Regulatory Hazardous Waste Determination Requirements

40 C.F.R. § 262.11 clearly provides and requires that any person who generates a *solid waste*, as that term is defined in 40 C.F.R. § 261.2, *initially must determine* if that waste is a *hazardous waste* using the step-by-step methodology therein prescribed. Even the reduced "Special Requirements" applicable to Conditionally Exempt Small Quantity Generators ("CESQG") (*i.e.*, generators who generate no more than 100 kilograms of hazardous waste in a calendar month) require such CESQGs to perform 40 C.F.R. § 262.11 hazardous waste determinations in order for conditional exclusion to apply.

40 C.F.R. § 261.5(a) defines a conditionally exempt small quantity generator ("CESQG") as a generator who, in a calendar month, "generates no more than 100 kilograms of hazardous waste in that month." 40 C.F.R. § 261.5(b) thereafter provides, in relevant and applicable part, that ". . . a conditionally exempt small quantity generator's hazardous wastes are not subject to regulation under [40 C.F.R.] parts 262 through 268 . . . provided the generator complies with the requirements of paragraphs (f), (g), and (j) of this [40 C.F.R.] section [261.5]." (*Emphasis supplied*).

40 C.F.R. § 261.5(g)(1) then provides, in relevant and applicable part, that: "(g) In order for hazardous waste generated by a conditionally exempt small quantity generator in quantities of 100 kilograms or less of hazardous waste during a calendar month to be excluded from full regulation under this section, the generator must comply with the following requirements: (1) Section 262.11 of this chapter [of 40 C.F.R.]." (*Emphasis supplied*).

As a result, even CESQGs – which neither Respondent claims to be -- *must* perform hazardous waste determinations, *in accordance with 40 C.F.R. § 262.11 requirements*, on the

solid wastes that they generate in order to qualify for, and receive, the 40 C.F.R. § 261.5 "conditional" regulatory exclusion. 40 C.F.R. §§ 261.5(a), (b) and (g).

ii. "Discarded" Aerosol Can Waste Cannot Qualify for the 40 C.F.R. § 261.6 Recyclable Material Exclusion

40 C.F.R. § 261.1(c)(6) defines "scrap metal" as "bits and pieces of metal parts (e.g.,[] bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled." 40 C.F.R. § 261.6(a)(1) provides that "[h]azardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of paragraphs [40 C.F.R. § 261.6] (b) and (c) of this section, except for the materials listed in paragraphs (a)(2) and (a)(3) of this section. Hazardous wastes that are recycled will be known as 'recyclable materials.'" 40 C.F.R. § 261.6(a)(3) thereafter provides that, in relevant and applicable part, that: "[t]he following recyclable materials are not subject to regulation under [40 C.F.R.] parts 262 through 268, 270 or 124 . . . (ii) [s]crap metal that is not excluded under [40 C.F.R.] § 261.4(a)(13)."[109]

Respondents' used aerosol can waste clearly is not a "recyclable material" that can qualify to be excluded from RCRA regulation as a "scrap metal." A steel aerosol can <u>that has been punctured and drained</u> would meet the 40 C.F.R. § 261.1(c)(6) definition of "scrap metal" and that aerosol can – <u>if it were to be recycled</u> – would be exempt from RCRA regulation under 40 C.F.R. § 261.6(a)(3)(ii), such that a hazardous waste determination would not be required. *See, e.g.,* RO 11782 at 2, 3; RO 11806.[110] However, the aerosol can waste generated by the

[109] Pursuant to 40 C.F.R. § 261.4(a)(13), excluded scrap metal is "(processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal) being recycled."

[110] Of course, any liquids or contained gases removed from an aerosol can container would be subject to regulation as a hazardous waste if listed in 40 C.F.R. Part 261, Subpart D or if it exhibits a characteristic described in 40 C.F.R.

Respondents at the Facility clearly was not an exempt recyclable material because the Respondents admittedly "disposed of" their used aerosol cans and did not, in fact, recycle them.[111] Answer at 6, ¶ 44.

Complaint does wish to point out that Chem-Solv's Vice President and General Manager, Jamision G. Austin, did initially certify, in Chem-Solv's 2/6/08 IRL Response, that the Facility used an "Aerosolv Model 5000 Aerosol Can Recycling Solution" to "process all aerosol cans".[112] However, neither he nor the Respondents have ever provided any evidence of this assertion. The Respondents also have not claimed in their Answer to the Complaint, in any Prehearing Submission or in any testimony offered on their behalf at the Hearing that used aerosol cans at the Facility ever were punctured, their contents properly managed and discarded and/or that the cans were recycled as an exempt scrap metal. Rather, the Respondents "admit[ed] that used aerosol cans were in storage for disposal with regular trash" at the Facility on May 18, 2007 and again on May 23, 2007 and that they "disposed of used aerosol cans". Answer at 6, ¶¶ 44, 45. (*Emphasis supplied*).

Part 261, Subpart C. *See, e.g.,* RO 11782 at 2, 3; RO 11806.

[111] Even if the Respondents had a plausible 40 C.F.R. § 261.6(a)(3) "recyclable material" scrap metal exclusion argument – which they do not -- 40 C.F.R. § 261.2(f), entitled "*Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation*", requires that:

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

(Emphasis supplied). Respondent has failed to provide any such documentation and the record in this proceeding is devoid of same.

[112] *See* CX 23 at 1078, 1079, ¶ 12.a. *(Emphasis supplied).*

iii. The 40 C.F.R. § 261.7 Hazardous Waste Container Residue Exclusion Applies Only to the "Residues of Hazardous Waste in Empty Containers" and Not to the Containers Themselves

Containers holding hazardous waste typically continue to contain "residues" of that waste even after reasonable efforts have been made to remove all such solid and/or hazardous wastes. Requirements and provisions governing residues of "hazardous waste" in empty containers are set forth at 40 C.F.R. § 261.7, which is aptly titled "Residues of hazardous waste in containers."

40 C.F.R. § 261.7(a)(1) provides, in relevant and applicable part, that: "[a]ny hazardous waste remaining in . . . an empty container . . . is not subject to regulation under [40 C.F.R.] parts 261 through 265 . . . ." 40 C.F.R. § 261.7(a)(2) conversely provides, in relevant and applicable part, that: "[a]ny hazardous waste in . . . a container that is not empty, as defined in paragraph (b) of this section [261.7], is subject to regulation under [40 C.F.R.] parts 261 through 265 . . . ." (*Emphasis supplied*).

40 C.F.R. § 261.7(b) thereafter provides, in relevant and applicable part, that:

> (1) A container . . . that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste listed in [40 C.F.R.] §§ 261.31, 261.32, or 261.33 . . . is empty if:
> (i) All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping and aspirating, *and*
> (ii) No more that 2.5 centimeters (one inch) of residue remain on the bottom of the container . . . , *or*
> (iii)(A) No more than 3 percent by weight of the total capacity of the container remains in the container . . .if the container is less than or equal to 119 gallons in size; or
> (B) No more than 0.3 percent by weight of the total capacity of the container remains in the container . . . if the container is greater than 119 gallons in size.
> (2) A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric.
> (3) A container . . . that has held an acute hazardous waste listed in 40 C.F.R. §§ 261.31 or 261.33(e) is empty if:
> (i) The container . . has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;
> (ii) The container . . . has been cleaned by another method . . . shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal . . .

(*Emphasis supplied*).

It is important to note that 40 C.F.R. § 261.7 exempts from RCRA regulation ***only*** the *residue* remaining in an "empty" container.[113] The 40 C.F.R. § 261.7 regulations do not apply to the container itself. As the Agency explained in the preamble to its November 25, 1980 final amendment and interim final amendments to the rule:

> . . .new section . . . [40 C.F.R.] § 261.7 . . . deals exclusively with the issue of when residues in containers will be subject to regulation. This new section will enable persons who deal with container residues to look to one section of the regulations to determine whether they are regulated."

45 *Fed. Reg.* 78524 at 78525, November 25, 1980. *(Emphasis supplied).* As a result, if a RCRA "empty" container that is being discarded or disposed *itself* exhibits a hazardous characteristic (*e.g.*, the can is made out of lead, a D008 characteristic waste, or is a D003 reactive waste due to pressurization), the container would have to be managed as a hazardous waste (even if the *residue* would be deemed non-hazardous). *See also,* RO 13027.

[113] In its November 25, 1980 federal register preamble, EPA explained that the hazardous waste regulations initially promulgated by the Agency on May 19, 1980 had provided that "[u]nder [40 C.F.R.] Part 261, all solid waste that is identified or listed as hazardous waste is subject to regulation under [40 C.F.R.] Parts 261 through 265 . . ." 45 *Fed. Reg.* 78524 at 78525, November 25, 1980. The Agency subsequently was made aware that "[m]any persons ha[d] concluded that unless hazardous waste residues in 'empty' containers [we]re excluded by the small quantity generator exclusion of [40 C.F.R.] § 261.5, all such residues [would be] fully controlled as hazardous wastes and thus persons handling such containers would, because of the residues[,] have to ship such containers accompanied by a manifest and have a permit (or interim status) for the treatment, storage or disposal of the residues." *Id.* As a result, the Agency explained that it "did not intend . . . to regulate hazardous waste residues in 'empty' but unrinsed containers, except where the hazardous waste is an acutely hazardous material listed in [40 C.F.R.] § 262.33(e). *Id.*, citing the preamble discussion at 45 Fed. Reg. 33116 (May 19, 1980).

f. Pursuant to 40 C.F.R. § 262.11 Requirements, Respondents Were Obligated to Determine Whether Discarded Aerosol Cans and Their Contents were Excluded from RCRA Regulation and, if Not Both Excluded, to Further Determine Whether the Contents of the Discarded Aerosol Cans, or the Aerosol Cans Themselves, Were Listed or Characteristic Hazardous Wastes

Respondents have admitted that "used aerosol cans were in storage for disposal with regular trash" at the Facility on May 18, 2007 and again on May 23, 2007. Answer at 6, ¶¶ 44. However, the Respondents argue that such used aerosol can waste was "stored lawfully" because they only disposed of used aerosol cans that "had been characterized by Respondents and determined to be non-hazardous waste." Answer at 6, ¶¶ 44, 45; at 7, ¶ 46.

Contrary to the Respondents' assertions, the evidence and the testimony in the record establishes that the Respondents' discarded aerosol can waste was a "solid waste" that was neither "determined" by the Respondents, pursuant to 40 C.F.R. § 262.11 requirements, to be: (a) excluded from RCRA regulation; nor (b) a listed hazardous waste, a characteristic hazardous waste, or a non-hazardous waste.

i. "Empty" Container Determination Requirements for Discarded Aerosol Cans

If a used aerosol can container originally held a substance that could be regulated as a hazardous waste, then the contents of the aerosol can container, upon discard or disposal (and the can itself, if disposed along with the contents), would be a solid and a hazardous waste unless several things occur. If the aerosol can has been drained or emptied to less than 3% by weight of the total capacity of the container, the can will be deemed to be "empty" of the waste (formerly the product) that was in the can. 40 C.F.R. § 261.7(b)(1)(i) and (iii)(A). However, aerosol cans also contain a compressed gas propellant that typically remains in the aerosol can even when less than 3% by weight of the total capacity of the container remains. Thus, if an aerosol can

contains a *compressed gas* propellant that *also could be regulated as a hazardous waste*, the compressed gas content of the can, upon discard or disposal (and the can itself, if disposed along with such content), would be a hazardous waste unless "the pressure in the container approaches atmospheric", pursuant to 40 C.F.R. § 261.7(b)(2). Only then will the can be deemed "empty" of the hazardous compressed gas propellant content pursuant to 40 C.F.R. § 261.7(b)(2).

The aerosol can waste generator also remains responsible for determining if the contents of a discarded aerosol can contains an acute hazardous waste listed in 40 C.F.R. § 261.31 or 261.33(e). Since instance aerosol cans containing an acute hazardous waste cannot be "triple rinsed" and there are no identified means of achieving "equivalent removal," aerosol cans containing an acute hazardous waste cannot qualify for the 40 C.F.R. § 261.7(b)(3) "empty" container exclusion and must be managed as hazardous wastes.

Finally, a generator must be cognizant of 40 C.F.R. § 261.23(a)(6), pertaining to the hazardous waste characteristic of reactivity. This section of the 40 C.F.R. Part 261, Subpart C, regulations provides that a solid waste exhibits the D003 characteristic of "reactivity" if a representative sample of the waste "is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement." Thus, even if an aerosol can is considered to be "empty" of residual content pursuant to 40 C.F.R. § 261.7(b)(1) and compressed gas propellant pursuant to 40 C.F.R. § 261.7(b)(2) --- such that any hazardous residual contents of the can are no longer subject to RCRA regulation pursuant to 40 C.F.R. § 261.7(a) --- the can itself has the remaining potential to be "capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement" such that the generator remains obligated, pursuant to 40 C.F.R. § 262.11(c) to determine whether the can itself exhibits the 40 C.F.R. § 261.23(a)(6) characteristic of reactivity.

EPA stated, in a November 25, 1980 Federal Register preamble to the Final Rule amending certain of its hazardous waste regulations, that "[f]or compressed gas containers, the second part of the definition [at 40 C.F.R. § 261.7(b)(2)] provides that an empty container is one that has been opened to atmospheric pressure." 45 *Fed. Reg.* 78524 at 7856 (November 25, 1980) (*Emphasis supplied).* To emphasize and explain the reasoning in support of this regulatory conclusion, EPA explained in a subsequent response to comments received about this regulatory provision, that the Agency had chosen to define an empty compressed gas container as "one in which the pressure approaches atmospheric, because the Agency is concerned with the hazards posed by the residual gas, which, if improperly managed, may pose a substantial hazard to human health and the environment." 47 *Fed. Reg.* 36092 at 36094 *(*August 18, 1982) (*Emphasis supplied).* Suggested definitional substitutions that could have resulted in a significant amount of material remaining in an "empty" compressed gas container where therein rejected by the Agency.[114] *Id.*

In subsequent December, 1980 guidance, the Agency further clarified its interpretation of the November 25, 1980 regulatory amendments with specific regard to aerosol cans. In a letter to the Council for Safe Transportation of Hazardous articles, EPA stated that:

> . . . our regulations are directed at controlling the management of hazardous wastes or hazardous waste residues in non-empty containers as opposed to controlling the management of the containers per se. Accordingly, with respect to aerosol cans, our regulations are confined to regulation of the contents of the cans, not the cans themselves.

[114] The Agency did explain that the return of a supplier's compressed gas *cylinder* in which residues remained would "not constitute the shipment of a solid (or hazardous) waste" because "the residue gases are not discarded by the customer and the used compressed gas cylinder is returned to the supplier" such that "neither the returned container nor the contained residue is a 'solid waste' as that term is defined by the Resource Conservation and Recovery Act and 40 CFR Part 261." 47 *Fed. Reg.* 36092 at 36094 *(*August 18, 1982) . The Agency's instant determination with respect to compressed gas *cylinders* --- i.e., a specific type of compressed gas container --- clearly was based upon the "general practice . . . to return cylinders for refilling" and the associated facts that "[t]he customer does not make the decision on the final disposition of the residue in the cylinder" and "the decision whether or not to discard the contents of the container is not made until the container is returned to the supplier." *Id.*

RO 12020 (SUPERSEDED).

Less than one year after such promulgation, EPA provided further written guidance to the Compressed Gas Association in which the Agency stated that:

> . . . [i]f [a] gas supplier, . . .decides to discard cylinders containing gaseous, liquid, or physically solid residues (i.e., non-empty containers) that meet the definitions in 40 CFR Part 261, the residues in the cylinders become hazardous wastes because they are being discarded, and these residues (and the cylinders) must be handled in compliance with the regulations."

RO 14759 (November 6, 1981)(Letter from Christopher J. Capper, Acting AA for Solid and Emergency Response to Lawrence W. Bierlein, Esq., Compressed Gas Association, "Residues Removed from Compressed Gas Cylinders") (*Emphasis supplied*).

However, in subsequent RCRA/Superfund Hotline Monthly Summary guidance issued in September of 1987, the Agency addressed waste identification issues pertaining to "aersosol paint and solvent wastes" which had been emptied "as per common industry practices used to empty such devices to less than 3% by weight of total capacity of the container" and stated that "the cans may still contain propellant, making the cans reactive if put in contact with a strong initiating force (i.e., intense pressure or heat)." RO 13027. In that guidance, EPA explained that aerosol cans so emptied were "for all practical purposes . . free of contents that might have been hazardous wastes." *RO 13027.* In that regard, the Agency noted that the regulations at issue (*i.e.*, 40 C.F.R. § 261.7(b)(1)(i) and (iii)) "solely addressed only the potentially hazardous contents" of aerosol cans excluded from regulation as empty. RO 13027. However, the Agency further advised the regulated community that:

> Irrespective of the lack of contained waste, the aerosol cans would be a RCRA hazardous waste because they demonstrate the hazardous characteristic of reactivity (40 CFR [§] 261.23(a)(6)).

RO 13027.[115](*Emphasis supplied*).

In a subsequent analysis of the regulatory considerations and requirements associated with the U.S. Department of the Navy's proposed Oxygen Breathing Apparatus ("OBA") canister source reduction process, the Agency initially concluded, much as it had with respect to aerosol cans, that "spent OBA canisters and/or component parts are likely to exhibit at least one characteristic of a hazardous waste, (e.g., D001-ignitability) as defined in 40 CFR 261 Subpart C." RO 11835 at 1-2. The Agency thereafter addressed the Navy's proposed OBA canister source reduction process[116] and further explained that:

> To dispose of a canister as non-hazardous waste (rather than recycle it), a generator would have to determine that the can is empty under 40 CFR 261.7 (or that the product it contained was not hazardous), *and* that the can itself is not hazardous. If a canister is to be disposed, and either contains hazardous waste or is a hazardous waste, it must be managed under all applicable regulations. In addition, the process of puncturing and rinsing the canisters could no longer be considered exempt recycling, and might require a RCRA permit (as described above).

RO 11835 at 4-5. (May 9, 1994) (Letter from David Bussard, Director, Characterization and Assessment Division to Mr. Scott Mauro, Naval Facilities Engineering Service Center, "Regulatory Requirements for On-Site Treatment of Oxygen Breathing Apparatus (OBA);" RPPC No. 9441.1994(10)). (*Emphasis supplied*).

Therefore, unless an aerosol can container can be completely emptied of all liquid product materials and all compressed gas propellants that may allow the aerosol can to remain "capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement" the generator also remains obligated, pursuant to 40 C.F.R.

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[115] This 1987 guidance supersedes EPA's prior (RO 12020) 1980 aerosol can guidance.

[116] EPA initially advised the Navy that: "If all of the materials generated by this process are being discarded (including the cans), then the process is not recycling, and may require a RCRA permit. Any liquids or contained gases removed from OBA canisters (or otherwise generated during the recycling process) may be subject to regulation as hazardous wastes if they are listed in Subpart D of 40 CFR Part 261 or if they exhibit any characteristics of hazardous waste as described in Subpart C of 40 CFR Part 261." RO 11835 at 4-5. (*Emphasis supplied*).

§ 262.11(c), to determine whether the aerosol can itself exhibits a 40 C.F.R. Part 261, Subpart C, characteristic, such as the 40 C.F.R. § 261.23(a)(6) "D003" characteristic of reactivity.

In short, for an intact aerosol can to be considered "empty" such that its contents may be disposed of as a nonhazardous waste pursuant to 40 C.F.R. §§ 261.7, the generator must determine, pursuant to 40 C.F.R. § 262.11 requirements and methods:

> (i) that all product from the container has been removed using normal practices commonly employed to use such material product;
>
> (ii) that the container has less than one inch of product residue on the bottom of the container or the product remaining in the container is less than 3 percent by weight of the total capacity of the container;
>
> (iii) for cans that held a hazardous waste compressed gas, including a compressed gas propellant, that the container approaches (*i.e.*, "ha[s] been opened to") atmospheric pressure (either through use or by puncturing and emptying the can); and
>
> (iv) that the can did not hold an acute hazardous waste listed in 40 C.F.R. § 261.31 or 261.33(e) (which must be disposed of as a hazardous waste since an intact aerosol can cannot be "triple rinsed" or equivalently cleaned in accordance with 40 C.F.R. § 261.7(b)(3) requirements).

40 C.F.R. § 261.7(a)(1), (b)(1)(i) and (iii), (b)(2) and (b)(3).

In order for an aerosol can itself legitimately to be disposed of as a non-hazardous waste, the generator must also determine, by testing or application of knowledge of the hazard characteristic of the waste in light of the materials or processes used, that:

> (i) the can itself does not exhibit any 40 C.F.R. Part 261, Subpart C, hazardous characteristic, such as the 40 C.F.R. § 261.23(a)(6) characteristic of reactivity.

40 C.F.R. § 262.11(c)(1) and (2). *See also* RO 13027; RO 11782; RO 11835 at 4-5.

g. Respondents Failed to Properly Determine Whether Aerosol Cans Discarded at the Facility Were "Empty" and Their Contents Excluded from RCRA Regulation as "Residues of Hazardous Waste in Empty Containers"

The evidence in the record establishes that the Respondents never had an aerosol can use, management and disposal policy at the Facility or that they totally failed to communicate, implement or enforce any such a policy. The record supports the resulting conclusion that the Respondents failed to properly determine whether discarded aerosol cans that were generated at the Facility were "empty," within the meaning and provisions of 40 C.F.R. § 261.7(b)(1), (2) and (3), such that their remaining residual contents were not subject to RCRA regulatory management storage, and disposal requirements.

i. Respondents Failed to Establish that Any Aerosol Can Waste Management or Disposal Policy Ever Existed at the Facility

In Respondent Chem-Solv's 2/6/08 IRL Response, company Vice President and General Manager Jamison G. Austin responded to EPA's inquiry regarding the "management" of used aerosol cans at the Facility, by stating *only* that an Aerosolv Model 5000 Aerosol Can Recycling Solution is used to process all aerosol cans.:" CX 23 at 1078, 1079, ¶¶ 12.a. (*Emphasis supplied*). In response to EPA's inquiry regarding the "disposal of" of used aerosol cans at the Facility, Mr. Austin stated that "[e]mpty aerosol cans are discharged in regular trash disposal after processing with Aeroslv 5000." CX 23 at 1079, ¶ 12.b. (*Emphasis supplied*). In response to EPA's final inquiry seeking the submission of "any and all waste determinations for all aerosol cans used at the Facility", Respondents failed to make any such submission, but provided the written answer "N/A" to indicate "not applicable." CX 23 at1079, ¶ 12.c.

In Chem-Solv's 2/6/08 IRL Response, Mr. Austin did not claim that the Respondents had any "policy" in place pertaining to the use, management or disposal of used aerosol cans

generated at the Facility. The 2/6/08 IRL Response included no identification or explanation of Facility management "expectations" regarding the use, management or disposal of used aerosol cans by Facility employees or personnel, nor did it include any references to what, if any, instructions that Respondent Chem-Solv had provided to Facility employees or personnel with regards to the use, management or disposal of used aerosol cans. Also missing from Respondents' 2/6/08 IRL Response were any documents, notes, correspondence or other written materials that would tend to indicate or confirm that the Respondents had ever made a 40 C.F.R. § 261.7 "empty container" determination or a 40 C.F.R. § 262.11 hazardous waste determination with respect to any aerosol cans, or the contents thereof, that had been used at the Facility and "disposed of" at any time prior to the May 2007 VADEQ Facility inspections. Moreover, the only information provided in the 2/6/08 IRL Response that pertained to the issue of hazardous waste determinations regarding used aerosol cans at the Facility indicated that no such determination had ever been made (*i.e.*, that hazardous waste determinations were "N[ot]/A[pplicable]").[117] CX 23 at 1079, ¶ 12.c.

ii. Respondents Have Never Had a Written Aerosol Can Use, Management or Disposal Policy at the Facility

With respect to Mr. Austin's above-cited written assertions and claims as to the implementation and communication of an aerosol can management and disposal policy at the Facility, Complainant notes that the Respondents have offered no supporting documentary evidence or corroborating factual testimony. To the contrary, Mr. Austin testified that aerosol

[117] Mr. Austin also failed to explain, in the Respondents' 2/6/08 IRL Response, why "Model 5000 Aerosol Can Recycling Solution" equipment would be employed at the Facility to "process" used aerosol cans if those processed aerosol cans were not being recycled but were, instead, "discharged in regular trash disposal." Perhaps the answer lies either in the fact that no such equipment then was employed by the Respondents or that the Respondents subsequently realized that they had failed to determine whether such liquids or contained gases were subject to regulation as listed or characteristic hazardous wastes and/or had failed to properly manage them as such. *See, e.g.*, RO 11782.

cans were not inventoried at the Facility and that Chem-Solv did not have any written protocol on aerosol can management at the time of the alleged violations. TR4 at 249.

Mr. Perkins also made it quite clear that Chem-Solv did not have any written protocol or policy addressing aerosol case waste management or disposal at the Facility at the time of the May 2007 Facility inspections and that it does not, to this day, have any such written protocol or policy in place at the Facility. TR4 at 131-132.

iii. Respondents Prior Claims Regarding Aerosol Can Use, Management and Disposal Practices are Inconsistent, Conflicting and Lack Credibility

The information offered and presented by the Respondents regarding the aerosol can use, management and disposal policies and practices purportedly put in place and implemented at the Facility is replete with inconsistent statements, conflicting testimony and a dearth of supporting or corroborating evidence.

(a) Respondents Previously Claimed to Have "Processed" Used Aerosol Cans Using "Aersolv 5000" Equipment

In Chem-Solv's 2/6/08 IRL Response, Mr. Austin stated that Chem-Solv used an "Aerosolv Model 5000 Aerosol Can Recycling Solution is used to process all aerosol cans" and that "[e]mpty aerosol cans are discharged in regular trash disposal after processing with Aeroslv 5000." CX 23 at 1078, 1079, ¶¶ 12.a., 12.b.

In neither the subsequent 1st Austin Affidavit filed with Respondent's Initial Prehearing Exchange (*i.e.*, RX 2), nor in his subsequent Hearing testimony, did Mr. Austin ever make any further mention or reference to "processing" aerosol cans at the Facility or to the use of a "Aeroslv 5000" equipment. He has, contrastingly stated, in a certified affidavit, that Chem-Solv had a "policy" to dispose of only completely empty aerosol cans in the trash and that such policy was "clearly communicated to all employees who used aerosol containers." RX 2 at CS 006,

¶ 28.

(b) Respondents Did Not Initially Claim to Have Any Aerosol Can Waste Management or Disposal "Policy" at the Facility

In Chem-Solv's 2/6/08 IRL Response, Mr. Austin made no reference to, or claim that, either the company or the Facility had any "policy" in place pertaining to the use, management or disposal of used aerosol cans generated at the Facility. *See,* CX 23 at 1078 - 1079, ¶¶ 12.a, 12.b and 12.c. No such "policy" was referenced within, or provided to EPA as a submission with, Respondent Chem-Solv's 2/6/08 IRL Response. *See,* CX 23.

(c) The Available Evidence Contradicts Respondents' Aerosol Can Use, Management and Disposal Policy Claims

At the Hearing, Mr. Austin testified that cans of aerosol spray paint, primarily black or white, were used at the Facility "to touch up the paint on reconditioned drums that were . . . filled before they went out to customers." TR4 at 249. He testified that Chem-Solv "would generally buy cases of that [aerosol spray paint] from Walmart" but that aerosol cans were not inventoried at the Facility and that Chem-Solv did not have any written protocol on aerosol can management at the time of the alleged violations. TR4 at 249. However, Mr. Austin further testified that management had certain "expectations" regarding aerosol spray paint usage at the Facility and such "expectations" and associated directions were communicated to Facility employees "very clearly". TR4 at 250.

Mr. Austin made clear through his testimony that the Facility's purported aerosol spray paint program, and the associated directions purportedly provided to Facility personnel, focused solely upon the effort to control and avoid the "over-usage" of spray paint because the associated costs were "unrecover[able]" from Chem-Solv's clients. TR4 at 250-251. In Mr. Austin's own words, Chem-Solv's aerosol spray paint program at the Facility "was controlled and managed to

maximize the usage of our aerosol cans and spray paint." TR4 at 250-251. Mr. Austin emphasized and elaborated upon this supposed fact, stating that:

> . . . the cases [of spray paint] were not just available to our operators to use anytime . . . . [Operators] were required to come to the plant manager, operation manager, to request additional spray cans of paint and that was in a controlled effort, or an effort to control the, quite frankly, the overuse potential of spray paint."

TR4 at 250.

The above testimony, however, is at complete odds with the photographic evidence introduced by Complainant at the Hearing. VADEQ Inspection Report photos[118] depict seven (7) individual aerosol spray cans scattered about the Facility's Flammable Liquid Storage Pad on May 15, 2007. CX 19 at EPA 428. The visible labels strongly suggest that at least four of those aerosol spray cans appear to be of an identical or similar spray paint product. CX 19 at EPA 428.

Many similar, and a number of different, aerosol can products are visible in photos taken by EPA Inspector Cox (on May 15, 2007), EPA Inspector Houghton (on May 23, 2007) and by the VADEQ Inspectors (on May 15, 18 and 23, 2007) in the Blend Room, the Flammable Liquid Storage Pad, the Container Destruction Area and the Acid Wash Pad Area of the Facility. CX 17 at EPA 308, 309; CX 18 at EPA 354, 359. CX 19 at EPA 428, 529, 530, 612, 620.

Mr. Austin's limited testimony regarding the supposed aerosol spray paint program in place at the Facility is as lacking in credibility as it is in detail. His statement that such aerosol spray paint program "was controlled and managed to maximize the usage of our aerosol cans and spray paint" clearly fails to withstand meaningful scrutiny. Any such program would necessarily

[118] S*ee*, CX 19 at EPA 426 – 432.

require inventory control and use management. Yet the evidence in the record clearly establishes that aerosol can product purchases were not inventoried at the Facility TR4 at 120 – 121.[119]

The photographic evidence in the record also depicts aerosol can products in use, haphazardly placed about, and openly available to Facility personnel for the taking in each of the Facility's Blend Room, Flammable Liquid Storage Pad, Container Destruction Area and Acid Wash Pad locations.[120] CX 17 at EPA 308, 309; CX 18 at EPA 354, 359. CX 19 at EPA 428, 529, 530, 612, 620. These aerosol can containers were left out in the open --- on top of drums, in open boxes, etc. --- in each of these locations.[121] These aerosol can containers and their contents were, indeed, "available to [Facility] operators to use anytime" and the photographic evidence clearly illustrates a lack of any effective policies or procedures at the Facility to "control the overuse potential of spray paint" or to limit the anytime availability of aerosol spray paint and other such products to Facility personnel by means of approved management requests or otherwise.

The type of aerosol spray can availability and use depicted in the photographic evidence illustrates a lack of aerosol can "management" and "control" at the Facility and is wholly inconsistent with the Respondents' stated policy of controlling the overuse potential and limiting the anytime availability of aerosol can spray paint products to personnel at the Facility. In contrast to Mr. Austin's testimony, the available photographic evidence alternatively supports a conclusion that the Respondents either totally failed to communicate, implement or enforce any

[119] Mr. Perkins therein testified, in response to inquiry by the Court, that he and his firm looked at everything that was in Chem-Solv product inventory and that he did not recall seeing aerosol cans or the contents of aerosol cans on the list.

[120] *See* CX 17 at EPA 308, 309; CX 18 at EPA 354, 359; and CX 19 at EPA 428, 529, 530, 612, 620.

[121] *See* CX 17 at EPA 308, 309; CX 18 at EPA 354, 359' and CX 19 at EPA 428, 529, 530, 612, 620.

aerosol can use, management and disposal policy at the Facility, or that they never had one in the first instance.

h. Respondents' Failed to Perform Reliable or Valid "Empty Container" Determinations on the Aerosol Can Waste Stream Generated at the Facility

The Respondents had no written training procedures in place at the Facility with respect to Facility employee use, management and disposal of aerosol can waste. The Respondents also failed to provide any evidence that purported unwritten policies ever were communicated to Facility employees and they admittedly had no formal inspection program in place at the Facility to oversee and/or supervise aerosol can waste management or disposal practices. As a result the Respondents, by their own expert's admission, failed to have a system in place that would enable Facility personnel to perform reliable or valid "empty container" determinations on the aerosol can waste stream generated at the Facility.

i. There is No Evidence That any Valid and Reliable Aerosol Can Use, Management or Disposal Policy Was Ever Communicated to, Implemented, or Followed By Facility Employees

In his Expert Witness Report, Mr. Scott Perkins states, in part, that:

> The EPA has alleged that Chem-Solv, Inc. did not properly characterize aerosol cans that they observed in a solid waste receptacle. This is not accurate. Chem-Solv, inc. previously determined that aerosol cans emptied of their content using standard means (e.g., depressing the spray nozzle until nothing more comes out) met and meet the RCRA definition of "empty" as defined in 40 CFR 261.7 (Exhibit 18). Chem-Solv, Inc. determined that each relevant element of the "empty" definition [of 40 C.F.R. § 261.7] had been satisfied. Personnel had been instructed to only deposit fully empty aerosol cans into the solid waste receptacles. Any non-empty aerosol cans were used until they were, in fact, empty, or, in the case of an inoperable aerosol cans, they were returned to the vendor (Exhibit 2).

RX 30 at CS 311. (*Emphasis supplied*). Of note is the fact that the only source that Mr. Perkins cites in support of his above-stated conclusion is the affidavit of Chem-Solv Vice President and

General Manager Jamison G. Austin (*i.e.*, the 1st Austin Affidavit) which is identified as RX 2 in Respondents' Initial Prehearing Exchange.

In that 1st Austin Affidavit, Mr. Austin states only that: he is "personally familiar with Chem-Solv's policy for disposing empty aerosol cans"; "[a]t the time of the Inspection and Sampling Event, it was Chem-Solv's policy that employees only dispose of completely empty aerosol cans in the trash"; it was also Chem-Solv policy to ensure that aerosol cans with some contents left in them "were [ ] used until such contents were completely gone"; and in the event that an aerosol can became inoperable, with contents still remaining, "to return such defective cans to the appropriate supplier or retailer for credit or exchange." RX 2 at CS 006, ¶¶ 27, 28, 29. At the Hearing, Mr. Austin also testified that Chem-Solv had a policy pertaining to aerosol cans at the Facility, that Chem-Solv management had certain "expectations" regarding aerosol spray paint usage at the Facility and such "expectations" and associated directions were communicated to Facility employees "very clearly." TR4 at 250.

Mr. Austin's testimony, however, is literally devoid of any associated or supporting details. Most telling, however, was Respondent' failure to identify or to call as a witness any Facility employee to provide testimony as to:

(i) *the nature and/or provision of any aerosol can use, management or disposal policy*, if any, *known by Chem-Solv Facility employees* to be in place at the time of the May 2007 Inspections;

(ii) whether and, if so, *how any such policy had ever been communicated to any Chem-Solv Facility employees*;

(iii) the name of the *individual(s) who communicated any such policy* to Chem-Solv Facility employees;

(iv) the names of the *Chem-Solv Facility employees to whom such policy was communicated* and what jobs or positions they held at the Facility;

(v) the *substance of the policy* that was communicated to such Chem-Solv Facility employees;

(vi) *the training*, if any, that Respondents *provided to such Chem-Solv Facility employees* to enable them to properly perform and fulfill their anticipated obligations under such policy;

(vii) the nature and extent of any *oversight or enforcement of such policy* at the Facility; or

(viii) the *extent to which Chem-Solv Facility employees followed, fulfilled and properly executed such policy*.

In fact, the Respondents' Initial Prehearing Exchange does not identify <u>any Facility employee</u> as a potential witness who would provide testimony as to any of the above issues.

Respondents' unexplained failure to present any such evidence suggests that application of the missing witness rule is appropriate and that an adverse inference --- which is discretionary with the finder of fact --- can, and should, be drawn as against the Respondents on these issues. EPA's Chief Administrative Law Judge summarized the tenets of the missing witness rule in *In the Matter of USA Remediation Services, Inc.*, EPA Docket No. CAA-03-2002-0159, 2003 EPA ALJ LEXIS 46 at *20, n5 (ALJ, 2003), therein explaining that:

> . . . the missing witness rule provides that if a witness is peculiarly within the control of one party and the witness' testimony would elucidate the facts at issue, and the party fails to call the witness, an inference may be drawn that the testimony, if produced, would be unfavorable to that party. *Jamaica Water Supply Co. and Dynamic Painting Corporation*, EPA Docket No. II RCRA-93, 1996 EPA ALJ LEXIS 163 (ALJ, 1996), *citing Graves v. United States*, 150 U.S. 118 (1893) and others. Because of economic interests, an employer-employee relationship between the witness and a party has been held sufficient to establish the required peculiar control, or practical unavailability, of the witness. *Jones v. Otis Elevator Co.*, 861 F.2d 655, 659 (11th Cir. 1988) (employee of defendant was deemed "unavailable" to the plaintiff because of the employer-employee relationship); *United States v. Beekman*,155 F.2d. 580, 584 (2nd Cir. 1946) (where there is likelihood of bias on the part of the missing witness in favor of one party, that witness, in a true sense, is not equally available, and thus an inference may be drawn against that party).

Even if application of missing witness rule's adverse inference is not deemed appropriate as against the Respondents by the Court, a review of the record in this proceeding makes clear that neither Mr. Austin's nor Mr. Perkins' vague and ambiguous assertions provide the necessary facts or evidence sufficient to establish, confirm or support the Respondents' claim that an aerosol can use, management or disposal policy ever was communicated to, or properly understood and implemented by, employees and personnel who used aerosol cans throughout the Facility – and disposed of them in the regular trash -- during and prior to May of 2007.

ii Respondents' Own Expert Testified that the Facility's "Empty Container" Aerosol Can Determination Practices Were Neither Reliable Nor Valid

During the course of his testimony, Respondents own expert, Mr. Scott Perkins, agreed (with the Court) that if a generator disposing of aerosol cans makes a hazardous waste determination that aerosol cans are "RCRA empty" and bases that determination on "generator knowledge," in order for such determination to be "reliable or valid" the generator must have written training procedures in place so that the generator is able to make sure that his employees are, in fact, properly implementing such knowledge. TR 4 at 130 – 131. Mr. Perkins also testified that because a generator "can't control what every worker does every day" he has "to have a system of checks and that is a formal inspection program, or reiterating the policy to employees." TR 4 at 131.

Thus Respondents' own expert has testified that the reliability and the validity of any aerosol can hazardous waste determination policy pursuant to which aerosol cans are determined to be "RCRA empty" based upon "knowledge" are dependent upon three things --- one of which the Respondents fully admit that they never had at the facility (*i.e.*, written training procedures that would allow Chem-Solv to make sure that its Facility employees were properly

implementing the requisite knowledge[122]) and the other two that the Respondents have never established that they had in place at the Facility (*i.e.*, "a formal inspection program[123]" or the "reiterat[ion of] the policy to employees").

iii. Chem-Solv has Not Established That Any of the Aerosol Can Use or Management Practices of its Purported Policy Were Ever Actually Followed by Facility Employees

Mr. Austin has testified that Chem-Solv's aerosol can use and management practices at the Facility included ensuring that aerosol cans with some contents left in them "were [ ] used until such contents were completely gone" and, in the event that an aerosol can became inoperable, with contents still remaining, "to return such defective cans to the appropriate supplier or retailer for credit or exchange." RX 2 at CS 006, ¶ 29. Mr. Austin also testified that Chem-Solv "would generally buy cases of [aerosol spray paint] from Walmart." TR4 at 249. (*Emphasis supplied*).

Given the large number of aerosol paint can products used regularly at various areas of the Facility,(as noted by reference to the photographic evidence, *supra*, and the fact that Chem-Solv had the stated need to purchase aerosol spray can products by the case, it is not unreasonable to assume that some defective aerosol spray cans were encountered by Facility personnel and that, on occasion, an aerosol can became inoperable with contents still remaining. Respondents, however, provided no evidence of that fact in this proceeding or of ever having implemented the stated policy "to return such defective cans to the appropriate supplier or retailer for credit or exchange."

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[122] Mr. Austin testified that Chem-Solv did not have any written protocol on aerosol can management at the time of the alleged violations. TR4 at 249.

[123] As to a "formal inspection program, the only testimony elicited at the Hearing was that of Mr. Perkins, who in fact testified that he knew of no formal training program at the Facility pertaining to environmental compliance and covering the disposal of aerosol cans and that he had no knowledge of whether the issue of aerosol can disposal was even discussed by Facility personnel at routine safety meetings. TR4 at 132.

With respect to Mr. Austin's additional claim that aerosol can products otherwise were used "until such contents were completely gone," Complainant again notes that Respondents provided no employee witnesses to testify that such stated policy was ever actually communicated, implemented or enforced at the facility. And since Chem-Solv did not have any written protocol on aerosol can management at the time of the alleged violations (*see*, TR4 at 249), Mr. Austin's above testimony is insufficient to establish whether Facility personnel understood or were told that the meaning of "contents completely gone" referred to the paint product content of the aerosol can, the compressed gas propellant content of the aerosol can, or both --- as clearly would be required in order for an aerosol can to have any possibility of being properly characterized as "empty" pursuant to 40 C.F.R. § 261.7(b)(1) and (2) requirements.

iv. There is No Evidence that Facility Personnel Understood, Applied or Ever Properly Followed RCRA's Regulatory "Empty Container" Determination Criteria

Respondents also provided no evidence in their Prehearing Submissions or through testimony to indicate that Facility personnel understood or were told that an aerosol container could meet 40 C.F.R. § 261.7(b)(1) and (2) requirements and still not be "empty" pursuant to 40 C.F.R. § 261.7(b)(3) because the can contained an "acute hazardous waste listed in 40 C.F.R. §§ 261.31 or 261.33(e) and had not been "triple rinsed" or cleaned by another equivalent scientific method. See, 40 C.F.R. § 261.7(b)(3)(i) and (ii).

In this respect, Complainant calls attention to the VADEQ Inspection Report summary of the May 18, 2007 Facility Inspection conducted by Ms. Lohman and Ms. Thompson. The VADEQ Inspectors therein reported seeing the numerous containers, drums and totes in storage in the Container Destruction Area of the Facility, located outside and near the loading dock. CX 19 at EPA 383. The Inspection Report includes a reference to various accompanying photos,

(including Photos 140 and 141) and states that "approximately 3 totes with the tops cut off [were] being used to accumulate a mixed waste stream" of "different materials (e.g., residues and sludges" that, according to Mr. Lester, were "mixed with sawdust to 'solidify and absorb any free liquid' before "[t]he commingled waste [was] discarded as a solid waste." CX 19 at EPA 383. Each of Photos 140 and 141 depicts what the VADEQ Inspectors describe in the accompanying photo captions as "sawdust and solid waste mixture observed in tote for disposal." CX 19 at EPA 529, 530.[124]

In this same section of their Inspection Report, the VADEQ inspectors also documented Facility Operations Manager Cary Mr. Lester's claim that the above-referenced "materials (e.g., residues and sludges) are non-RCRA regulated since the containers are 'RCRA empty'." CX 19 at EPA 383. The VADEQ inspectors also reported their observations that some of the containers of solid waste being stored at the Container Destruction Area of the Facility on May 18, 2007 "did not appear to meet the definition of 'RCRA empty' because there were several inches of material remaining in the bottoms of the containers waiting to be destroyed" and because "the facility had created a new waste stream by co-mingling various sawdust mixtures and residuals from multiple containers, thus creating a new waste stream [that] must be characterized because it is destined for disposal." CX 19 at EPA 383. As a result, they also reported that they had to explain to Mr. Lester that "[t]he RCRA empty concept only applies to the containers and their residues [that are] disposed of together, not new waste streams generated by aggregating 'empty' residues." CX 19 at EPA 383.

[124] Two aerosol spray paint cans are visible in Photo 140. One is located on the top of the tote holding the sawdust and solid waste mixture. The other is located inside of the tote. CX 19 at EPA 529. Photo 141 provides an additional view of the aerosol spray paint can located inside of the tote. CX 19 at EPA 530.

In light of Facility Operations Manager Cary Lester's documented mis-understanding and inappropriate application of the "RCRA empty" concept to container residues that had been removed from their original containers and subsequently co-mingled, consolidated and stored together in different containers pending disposal, the VADEQ Inspectors reported asking Mr. Lester "about written procedures or on-the-job training to instruct employees how to identify 'RCRA empty' and non-RCRA empty containers." *Id*. They also reported Mr. Lester's response that "CS[125] does not have any formal procedures or training for employees." CX 19 at EPA 383. (*Emphasis supplied*).

v. An Unwritten PolicyWithout Associated Employee Training and Oversight is Not a Substitute for a Reliable and Valid "Hazardous Waste Determination"

As previously established Respondents' own expert agrees that a generator who disposes of aerosol cans by making a hazardous waste determination that the aerosol cans are "RCRA empty" and based upon "generator knowledge," can only establish that such a determination is "reliable or valid" through implemented written training procedures that enable the generator to make sure that his employees are, in fact, properly implementing such knowledge. TR 4 at 130 – 131. Respondents' own expert also recognizes that a generator "can't control what every worker does every day" and has "to have a system of checks and that is a formal inspection program, or reiterating the policy to employees." TR4 at 131.

The Respondents admittedly had no written or formal training program at the Facility pertaining to environmental compliance and covering the disposal of aerosol cans.[126] TR4 at

[125] "CS" clearly is an abbreviation for "Chem-Solv"

[126] Mr. Perkins testified only as to his understanding that "routine safety meetings" were conducted at the Facility, but also testified that he was "not sure specifically whether that the aerosol cans were brought up in those meetings or not." TR4 at 132.

132. The Respondents also presented no evidence that any "formal inspection program" ever was implemented at the Facility. The Respondents similarly presented no evidence or testimony at the Hearing that even suggested that the Respondents had any type of formal waste inspection or identification program of any kind in place at the Facility or that the issue of proper aerosol can disposal was ever discussed with Facility personnel regularly, at routine safety meetings or otherwise.[127] TR4 at 132. As a result, the Respondents clearly had no reliable means of establishing that Facility personnel ever properly performed 40 C.F.R. § 261.7(b) empty container determinations on *any* of the aerosol can waste generated by the Respondents at the Facility during the time period herein at issue.

i. Respondents Failed to Determine Whether the Remaining Liquid Material Content or Compressed Gas Propellant Content of the Facility's Aerosol Can Waste Streams, or the Aerosol Cans Themselves, Were Hazardous Wastes, in Accordance with Applicable 40 C.F.R. §§ 262.11 Requirements and Methods

The Respondents failed to establish that the Facility's aerosol can waste streams were excluded from 40 C.F.R. § 262.11(b) and (c) hazardous waste determination requirements by application of any applicable (40 C.F.R. § 261.4 or 40 C.F.R. Part 261, 264 – 268, or 273) regulation. They also failed to establish, or even to claim, that Facility personnel ever performed any reliable or valid hazardous waste determinations, pursuant to applicable 40 C.F.R. § 262.11(b) and (c) regulatory requirements, on any aerosol can waste generated at the Facility.

i. The Aerosol Can Waste Streams Generated by the Respondents at the Facility Were Subject to 40 C.F.R. § 262.11(b) and (c) Waste Determination Requirements

The hazardous waste determination "method" set forth at 40 C.F.R. § 262.11 provides that the generator of a solid waste must follow the methodology of that regulation. The initial step in that methodology, as set forth at 40 C.F.R. § 262.11(a) provides that a generator of a solid

[127] *See* TR4 at 132.

waste should first determine is the waste is excluded from regulation under 40 C.F.R. § 261.4. In the present matter, the Respondents have failed to claim or establish that any of the 40 C.F.R. § 261.4 RCRA regulatory exclusions applied to any of the aerosol can solid waste streams that the Respondents generated at the Facility and, for the reasons discussed *supra*, they do not.

Respondents, however, claim to have jumped ahead in application of the established 40 C.F.R. § 262.11 hazardous waste determination methodology to the final step, set forth at 40 C.F.R. § 262.11(d). That final step provides that]f the waste is determined to be hazardous, the generator must refer to other parts of the 40 C.F.R. regulations – including 40 C.F.R. Part 261 – for possible exclusions "pertaining to management of . . . specific waste", such as the aerosol can wastes that Respondents generated at the Facility. (*Emphasis supplied*). Respondents further claim that the 40 C.F.R. § 261.7 "[r]esidues of hazardous waste in empty containers" provisions support their purported determination that the aerosol can wastes that Chem-Solv generated at the Facility were not subject to RCRA regulation because any hazardous waste remaining in those discarded aerosol can containers were not subject to RCRA regulation because the aerosol can containers were "empty", within the meaning of 40 C.F.R. § 261.7(a) and (b). *See* RX 30 at CS311; RX 18 at CS 214. Unfortunately, and as explained in detail *supra*, the Respondents failed to provide any evidence that Facility personnel ever performed reliable and/or valid 40 C.F.R. § 261.7 "empty container" determinations on any of the specific aerosol can wastes generated at the Facility.

In failing to establish that any 40 C.F.R. § 261.4 provision excluded the Respondents' aerosol can waste streams from RCRA regulation, or that any other 40 C.F.R. Part 261, 264 – 268 or 273 provision excluded Respondents' aerosol can hazardous waste streams from RCRA regulation or management, the Respondents, at all relevant and applicable times, were subject to

40 C.F.R. § 262.11(b) and (c) hazardous waste determination requirements regarding the aerosol can solid waste stream that they regularly generated at the Facility.

i. Respondents Failed to Perform Any Valid Hazardous Waste Determination on the Liquid Material or Compressed Gas Propellant Content of the Facility's Aerosol Can Waste Streams, or on the Discarded Aerosol Cans Themselves

Despite the applicability of 40 C.F.R. § 262.11 hazardous waste determination requirements to the Facility's aerosol can solid waste streams and the Respondents' failure to perform valid "empty container" determinations on the aerosol can waste streams generated at the Facility, pursuant to 40 C.F.R. § 261.7(b), the Respondents subsequently failed to provide any inventory listing, purchase receipt or any other form of documentary evidence that lists or identifies of any of the aerosol can products that they purchased for use at the Facility. Nowhere in the record or in the testimony of their witnesses have the Respondents identified any of the aerosol can products that they actually used at the Facility. Nowhere in record have the Respondents provided any information – such as a Material Safety Data Sheets – for any of the used aerosol can products that were subsequently "disposed of" in the regular trash at the Facility from which one might be able to characterize the liquid material contents or compressed gas propellant contents of the container, or the container itself. And nowhere in the testimony of either of the Respondents' two fact witnesses, Mr. Tickle or Mr. Austin, is there any information that could be used to learn anything relevant to the performance of a hazardous waste determination on the Facility's used aerosol can waste stream.[128]

[128] In fact, the only testimony that the Respondents proffered at the Hearing regarding the nature of the aerosol can products used at the Facility was Mr. Austin's exceedingly general testimony that cans of aerosol spray paint, primarily black or white, were used at the Facility and that Chem-Solv would generally buy cases of aerosol spray paint from Walmart. TR4 at 249- 250.

(a) Respondents Never Determined Whether the Liquid Material or Compressed Gas Propellant Content of any Aerosol Can Wastes Generated at the Facility Was a Listed, Acute Listed or a Characteristic Hazardous Waste Based on Testing or Knowledge

If the Respondents "knew everything there was to know about those cans that they needed to make a waste characterization[,]"[129] as Mr. Perkins has claimed, then Complainant is at a loss to explain why the Respondents never provided Complainant -- or the Court -- with any evidence that a waste determination had ever been made on the liquid content or the compressed gas propellant content of any of the aerosol can waste streams generated at the Facility and disposed in the regular trash.

The Respondents failed to establish – or even to argue, claim or assert as an affirmative defense -- that Facility personnel *ever* performed reliable and valid hazardous waste determinations, in accordance with applicable 40 C.F.R. § 262.11(b) and (c) requirements and methods (*i.e.*, actual "generator knowledge" and/or proper analytical testing), on the liquid material products and/or the compressed gas propellants in discarded aerosol cans generated at the Facility or on those aerosol cans themselves. In fact, when asked by EPA to submit "any and all waste determinations for all aerosol cans used at the Facility," Respondents failed to make any such submission, but provided the written answer "N/A" (*i.e.*, "Not Applicable") in response to such inquiry." CX 23 at 1079, ¶ 12.c.

j. Respondents Never Determined Whether Discarded Aerosol Cans Generated at the Facility Themselves Exhibited any Hazardous Characteristic

40 C.F.R. § 262.11(c) provides that if a solid waste is not excluded from regulation or listed in 40 C.F.R. Part 261, Subpart D, "the generator *must then* determine whether the waste is identified in subpart C of 40 CFR part 261 by either: (1) Testing the waste according to the

[129] *See* TR4 at 60. (Testimony of Scott Perkins).

methods set forth in subpart C of 40 CFR part 261, or according to an equivalent method approved by the Administrator under 40 CFR 260.21; or (2) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used."

The above-referenced 40 C.F.R. Part 261, Subpart C, regulation include 40 C.F.R. § 261.23 regulations pertaining to the hazardous characteristic of "reactivity". 40 C.F.R. § 261.23(a) specifically provides that a solid waste will be found to exhibit the hazardous characteristic of "reactivity" if a representative sample of the waste has any of the properties identified in 40 C.F.R. § 261.23(a)(1) through (8), including the 40 C.F.R. § 261.23(a)(6) properties of "being capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement."

In RO 13027 and RO 11782 guidances issued by EPA and discussed *supra*, EPA has advised the regulated community of its position that discarded aerosol cans that may be considered "empty," pursuant to 40 C.F.R. § 261.7 (despite the fact that some residual hazardous waste remains in the container), may themselves exhibit a hazardous characteristic, such as reactivity, because even such empty containers may contain residual propellant that makes the aerosol can capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement. In a subsequent RO 11835 guidance the Agency also concluded, much as it had with respect to aerosol cans, that spent O[xygen] B[reating] A[pparatus] canisters and/or component parts themselves are likely to exhibit at least one characteristic of a hazardous waste, such as D001-ignitability, and that "[t]o dispose of a canister as non-hazardous waste (rather than recycle it), a generator would have to determine that

the can is empty under 40 CFR 261.7 (or that the product it contained was not hazardous), and that the can itself is not hazardous." RO 11835 at 4-5. (*Emphasis supplied*).[130]

In the present case, the Respondents have failed to establish their claim that the residual contents of aerosol cans generated at the Facility and discarded by the Respondents were in empty containers and, therefore, excluded from RCRA regulation, under 40 C.F.R. § 261.7 or that such containers otherwise were excluded from RCRA regulation pursuant to 40 C.F.R. § 261.4 or any other provision of 40 C.F.R. Part 261, 264 through 268, or 273. In addition, the Respondents have failed to even make any claim or assertion that they ever performed a reliable or valid 40 C.F.R. § 262.11(c)(1) or (2) waste determination on the aerosol cans themselves in order to determine it the Facility's discarded (*i.e.*, "solid waste") aerosol can waste stream exhibited any 40 C.F.R. Part 261, Subpart C, hazardous characteristic, such as the 40 C.F.R. § 261.23 characteristic of "reactivity." Respondents have provided no records of performing any waste analysis or determination on any Facility aerosol can waste stream. Respondents also have failed to provide any records or evidence of having gained, relied upon and utilized any knowledge of the hazard characteristic of their aerosol can waste streams (i.e., "process knowledge) to make any such determination --- despite Mr. Perkins claim that the Respondents "knew everything there was to know about those cans that they needed to make a waste characterization." TR4 at 60.

Respondents have instead claimed that such characterizations were not applicable to the Facility's aerosol can waste streams. CX 23 at 1079, ¶ 12.c. As a result, the Respondents failed to fulfill their 40 C.F.R. § 262.11 hazardous waste determination obligations with respect to the aerosol can solid waste stream generated at the Facility.

[130] *See also* discussion of RO 11835, *supra*.

i. Respondents Claim that Facility Aerosol Can Waste Determinations Were "Not Applicable" and Their Failure to Provide Requested Waste Determinations to EPA Further Establish that Such Required Waste Determinations Were Never Performed

If the Respondents ever did perform a waste determination on the liquid material content or the compressed gas propellant content of any of the aerosol can waste streams generated at the Facility, they have failed to produce the results of any such analysis or the information used to make a process knowledge determination. Similarly, the Respondents have provided no analytical or process knowledge determination results pertaining to any of the discarded aerosol cans themselves. In this respect, Complainant calls attention to the generator recordkeeping provisions of 40 C.F.R. § 262.40(c) and (d), which require that:

> (c) A generator must keep records of any test results, waste analyses, or other determinations made in accordance with § 262.11 for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage or disposal.
>
> (d) The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator.

(*Emphasis supplied*).

In its RCRA Section 3007 Information Request Letter dated February 4, 2008 (*i.e.*, the 2/4/08 IRL), EPA specifically requested that Respondent Chem-Solv "[s]ubmit any and all waste determinations for all aerosol cans used at the Facility." CX 22 at EPA 1067, ¶ 12.c. Respondent Chem-Solv failed to provide EPA with any responsive submission, but provided the written answer "N/A" (*i.e.*, "Not Applicable") in 2/6/08 IRL Response to EPA's aerosol can waste determination submission request." CX 23 at 1079, ¶ 12.c.

Given the 40 C.F.R. § 262.40(c) and (d) recordkeeping requirements and Respondent Chem-Solv's 2/6/08 IRL Response, it is clear that the Respondents never performed, and therefore failed to retain, records of any hazardous waste determination test results, waste

analyses or other types of 40 C.F.R. § 262.11 hazardous waste determinations on the aerosol can waste streams that they generated at the Facility.

k. Conclusion

The Respondents have not established that any aerosol can wastes generated at the Facility were "empty" and could be disposed of as a nonhazardous waste pursuant to the 40 C.F.R. § 261.7 "empty container" exclusion because they failed to elicit and present any fact testimony or evidence that all liquid material product had been removed from discarded aerosol cans generated at the Facility through the use of normal practices commonly employed to use such liquid material products and that each discarded aerosol can container had less than one inch of product residue on the bottom of the container or the product remaining in the container was less than three percent by weight of the total capacity of the container, as required pursuant to 40 C.F.R. § 261.7(b)(1)(i) and (iii).

The Respondents also failed to establish that the compressed gas propellant content of each discarded aerosol waste can generated at the Facility approached atmospheric pressure prior to disposal, as required pursuant to the 40 C.F.R. § 261.7(b)(2) "empty container" exclusion applicable to containers that have held a compressed gas, because the Respondents failed to present any evidence that a reliable and valid aerosol can use, management and disposal policy was actually put in place at the Facility and was regularly communicated to Facility employees who were trained to make 40 C.F.R. § 261.7(b) "empty container" determinations that were subject to management oversight and review.

The Respondents also failed to present any testimony or evidence, and therefore failed to establish, that intact aerosol can waste streams generated at the Facility did not hold an acute hazardous waste listed in 40 C.F.R. § 261.31 or 261.33(e), which they would be required to

dispose of as a hazardous waste since an intact aerosol can cannot be "triple rinsed" or equivalently cleaned in accordance with 40 CFR 261.7(b)(3) requirements.

Finally the Respondents failed to establish that they had ever determined whether any of the Facility's discarded aerosol cans themselves exhibited a hazardous characteristic, such as the 40 C.F.R. § 261.23(a)(6) characteristic of reactivity.

As a result, the evidence presented at the Hearing and admitted into the evidentiary record clearly establishes and reveals that aerosol can wastes that the Respondents generated at the Facility and discarded in the regular trash were subject to 40 C.F.R. § 262.11(b) and (c) hazardous waste determination requirements and that the Respondents failed to perform required hazardous waste determinations on the aerosol can solid waste streams they generated at the Facility, in violation of 40 C.F.R. § 262.11 requirements.

Count III – Failure to Provide Secondary Containment for the Acid Pit

1. Secondary Containment Allegations

In Count III of the Complaint, Complainant alleges, *inter alia*, that Respondents by failed to provide required secondary containment for the Pit at the Facility, in violation of applicable 40 C.F.R. § 264.193(a), (d) and (e) containment and detection of release regulatory requirements. Complaint at 8 – 9, ¶¶ 47 – 52.

In their Answer, the Respondents deny these allegations based upon the false assumption that the Pit was not regulated by 40 C.F.R. Part 264 regulatory requirements and upon their asserted defense that such regulation "does not apply because the [Pit] is not considered to be a hazardous waste holding tank since the rinsewater was a useable product with market value that Chemsolv used to rinse containers and as feed stock for making a marketable product, a freeze conditioning agent, and not a waste." Answer at 7 – 8, ¶¶ 48 – 53 (*quoting from* ¶¶ 52, 53).

Complainant has addressed, *supra*, Respondents' erroneous *affirmative* defense that the Pit is not a regulated hazardous waste holding tank and asserts that the Respondents have failed to comply with the applicable containment and detection of release regulatory requirements of 40 C.F.R. § 264.193(a), (d) and (e) based upon the information, observations and evidence set forth below.

2. Containment and Release Detection Regulatory Requirements

40 C.F.R. § 264.193(a) provides, in relevant part and with exceptions not herein applicable, that "[i]n order to prevent the release of hazardous waste or hazardous constituents to the environment, secondary containment that meets the requirements of this section must be provided (except as provided in paragraphs (f) and (g) of this section): (1) For all new and existing tank systems or components, prior to their being put into service." (*Emphasis supplied*). 40 C.F.R. § 264.193(b) thereafter provides that :[s]econdary containment systems must be: (1) Designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; and (2) Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

In addition to the specific requirements set forth at 40 C.F.R. § 264.193(c), 40 C.F.R. § 264.193(d) makes clear that "Secondary containment for tanks must include one or more of the following devices: (1) A liner (external to the tank); (2) A vault; (3) A double-walled tank; or (4) An equivalent device as approved by the Regional Administrator." (*Emphasis supplied*). 40 C.F.R. § 264.193(e) sets forth additional requirements that external liner, vault and double-walled tank secondary containment systems must satisfy.

3. Relevant Evidence

In Question 18.d. of the 2/4/2008 IRL that EPA sent to Chem-Solv, the Agency specifically asked Chem-Solv to "[s]ubmit any plans and specifications for the pit's construction." CX 22 at EPA 1069, ¶ 18.d. In its 2/6/08 IRL Response to EPA's request for the submission of "plans and specifications for the pit's construction," Chem-Solv directed EPA to its attached submission 18.d. *See* CX 23 at EPA 1083. A review Chem-Solv's 2/6/08 IRL Response Attachment 18.d. reveals a partial and incomplete section of an engineering design drawing, with an incomplete and numbered list of associated equipment descriptions and a one paragraph notation regarding "Sequence of Operation" for what is referred to therein as both a "1500 gal. Neut[ralization] Storage Tank" and a "1500 Gal. Inground Storage Tank." CX 23 at EPA 1139.

The one-page partial engineering diagram submitted by Respondent Chem-Solv in response to Question 18.d. of EPA's 2/4/2008 IRL does not include any narrative or diagramatic information that is at all indicative of the presence or any sort of secondary containment system such as an external liner, a vault; a double-walled tank or any other equivalent device. In fact the only information in the record as to any type of "liner" at the Pit indicates that it had an internal liner – not an external one. In that regard, Mr. Tickle was questioned by Respondents' counsel about a picture of the Pit taken after it had been removed from the ground. The pertinent question, and Mr. Tickle's answer, were as follows:

> Q. Turning over one page forward to [CX 23 at] EPA1163. Lets look at the top photograph. Photo #1 on that page. Can you identify what that photograph is of?
>
> A. That's the pit tank. The liner on the inside.

TR3 at 142.

Since the Pit is a sub-grade tank and largely invisible to visual observation, Respondents are the only ones possessing complete knowledge and information as to the all tank system components. VADEQ sought to determine whether the Pit had secondary containment, but the information the Chem-Solv representatives provided to VADEQ did not allow for such a determination. In fact, when Ms. Lohman was asked if she was "ever able to determine if this [P]it had secondary containment as that term would be used in sub-part J of 40 CFR Part 264 and 5" she was only able to state, based upon the information that Chem-Solv representatives had provided to her, that she "wouldn't say we were able to determine" but that "based on the information that we were given" she believed that the tank was "concrete" with a ceramic liner "inside the tank."[131] TR1 at 91, 167. That belief was no doubt based, in part, upon the January 28, 1999 letter from Environmental Directions Incorporated to Chem-Sovls Randy Baumgarner, stating that "upon inspection of the wastewater pit liner" chemical degradation was noted and that "[t]he liner has a 4 inch diameter opening, and the concrete base behind the liner has degraded and flowing liquid into the tank is evident." The letter, provided to VADEQ by Chem-Solv, includes a warning to Chem-Solv that attempts to "try to patch the opening with concrete . . . may not work since acid will eventually break down the concrete" and recommends a "new liner" to "reduce potential contamination." CX 43 at EPA 1561 (Emphasis supplied). This letter clearly indicates that at the time of a January 28, 1999 inspection, the Pit had a liner with a concrete base that needed immediate replacement "to reduce potential contamination." Such recommended replacement clearly would not have needed to be done "immediately" if adequate secondary containment had been in place.

[131] Mr. Tickle actually confirmed that the information that Ms. Lohman received from Chem-Solv regarding the tank liner being located inside of the Pit actually was correct. *See* TR2 at 142.

4. Respondents Failed to Provide Required Secondary Containment for the Acid Pit

The evidence in the record illustrates that the Pit was not designed or constructed to include an "external liner", a "vault" or as a "double-walled tank"[132] and the Respondents have failed to establish that any of those secondary containment systems, or any "equivalent device as approved by the Regional Administrator" has ever been modified to include any of those required systems during the period of time that the Pit was operated as a hazardous waste storage unit.

Unfortunately for the Respondents, the established presence of an internal tank liner does not meet 40 C.F.R. § 264.193 secondary containment requirements. The evidence and information provided to EPA by the Respondents, supports a conclusion that the Pit contained only an internal ceramic liner insufficient to meet the regulatory secondary containment requirements of 40 C.F.R. § 264.193(a), (d) and (e). And since information as to the design, construction, installation and operation of this 20 year old sub-grade tank and its associated and ancillary equipment rests solely in the Respondents' possession and control, their failure to put into the record any *other* information pertaining to the "plans and specifications for the pit's construction" that would shed any meaningful alternative light on the issue, further supports the reasonable conclusion that the Pit was not double-walled, was never part of a tank system that included an external liner, a vault, or any equivalent containment device approved by the Regional Administrator, and that the Respondents operated the Pit, at all times herein relevant, in violation of applicable 40 C.F.R. § 264.193(a), (d) and (e) secondary containment requirements.

[132] *See* CX 23 at EPA 1139.

Count IV – Respondents Failed to Have and Maintain the Required Written Tank Assessment Certification Statements for the Acid Pit

1. Tank Assessment Certification Failure Allegations

In Count IV of the Complaint, Complainant alleges, *inter alia*, that the Pit is a "new tank system" (*i.e.*, installation commenced after July 14, 1986) within the meaning and definitions of 40 C.F.R. § 262.10 and 40 C.F.R. § 264.292(a) for which the Respondents failed to comply with applicable new tank system written design certification statement requirements of 40 C.F.R. § 264.192(b) – (f), as required pursuant to 40 C.F.R. § 264.192(a) and (g). Complaint at 8, ¶¶ 53 – 57.

In their Answer, the Respondents deny the above allegations based upon the same false assumption and erroneous *affirmative* defense (*i.e.*, that the Pit is not a regulated hazardous waste holding tank) asserted in response to the Count III allegations in the Complaint. Answer at 9, ¶¶ 54 – 57. Complainant has addressed that assertion, *supra*, and asserts that the Respondents have failed to comply with the applicable new tank system written design certification statements, as alleged in the Complaint.

2. Containment and Detection of Release Regulatory Requirements

40 C.F.R. § 262.10 defines a "new tank system" to mean "a tank system . . . . that will be used for the storage or treatment of hazardous waste and for which installation has commenced after July 14, 1986; except, however, for purposes of § 264.193(g)(2) and § 265.193(g)(2), a new tank system is one for which construction commences after July 14, 1986."

40 C.F.R. § 264.192(g) provides that:

> The owner or operator [of a new tank system] must obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system in accordance with the requirements of paragraphs (b) through (f) of this section, that attest that the tank system was properly designed and installed and that repairs, pursuant to paragraphs (b) and (d) of this section,

were performed. These written statements must also include the certification statement as required in § 270.11(d) of this chapter.

The associated certification requirements of 40 C.F.R. § 264.192(b) through (d) additionally require that:

> (b) The owner or operator of a new tank system must ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation. Prior to covering, enclosing, or placing a new tank system or component in use, an independent, qualified, installation inspector or a qualified Professional Engineer, either of whom is trained and experienced in the proper installation of tanks systems or components, must inspect the system for the presence of any of the following items: (1) Weld breaks; (2) Punctures; (3) Scrapes of protective coatings; (4) Cracks; (5) Corrosion; (6) Other structural damage or inadequate construction/installation. All discrepancies must be remedied before the tank system is covered, enclosed, or placed in use.
>
> (c) New tank systems or components that are placed underground and that are backfilled must be provided with a backfill material that is a noncorrosive, porous, homogeneous substance and that is installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported.
>
> (d) All new tanks and ancillary equipment must be tested for tightness prior to being covered, enclosed, or placed in use. If a tank system is found not to be tight, all repairs necessary to remedy the leak(s) in the system must be performed prior to the tank system being covered, enclosed, or placed into use.
>
> (e) Ancillary equipment must be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion, or contraction. [Note omitted]
>
> (f) The owner or operator must provide the type and degree of corrosion protection recommended by an independent corrosion expert, based on the information provided under paragraph (a)(3) of this section, or other corrosion protection if the Regional Administrator believes other corrosion protection is necessary to ensure the integrity of the tank system during use of the tank system. The installation of a corrosion protection system that is field fabricated must be supervised by an independent corrosion expert to ensure proper installation.

3. Relevant Evidence

In their Answer to the Complaint, Respondents assert that they "lack sufficient information to admit or deny" EPA's allegation that the Pit "was installed at the Facility after July 14, 1986." Answer at 8, ¶ 55. Complaint at 9, ¶ 54. However, in Respondent Chem-Solv's

2/6/08 IRL Response to EPA's question seeking the "date of the construction of the [P]it[,]" Chem-Solv identifies that date as "Approximately 1989 – 1990." CX 23 at EPA 1083, ¶ 18.e. See also CX 22 at EPA 1069, ¶ 18.e.

In Question 18.g. of the 2/4/2008 IRL that EPA sent to Chem-Solv, the Agency specifically asked Chem-Solv to "[s]ubmit any certifications on file" regarding "the pit at the acid transfer/container wash station" of the Facility. CX 22 at EPA 1069, ¶ 18.g.
In response to that request for the submission of "certifications" regarding the Pit, Chem-Solv failed to make any submission to EPA and stated only that "[p]lans for construction were produced and stamped approved by a professional engineer" CX 23 at EPA 1084, ¶ 18.g.

Chem-Solv's statement that the plans for construction of the Pit "were stamped approved by a professional engineer" does not meet the specific, detailed professional engineer certification requirements for hazardous waste storage tanks, set forth in the rules above, which also require the certifying professional engineer to use the specific language of 40 C.F.R. § 270.11(d)(1) ("I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.").

Chem-Solv has made no other statements, claims, submissions or other efforts to demonstrate compliance with the new tank system certification requirements of 40 C.F.R.

§ 264.192(g). Rather, the Respondents tried to play down the potential harm associated with this failure at the Hearing, having their designated expert, who is a professional engineer, testify --- without benefit of the design plans for the Pit or the associated tank system --- that:

> The absence of a tank assessment, and you can suppose it in two ways -- it is an administrative requirement that goes to potential substantive weakness of the system. Knowing what I know about the tank, and I am a professional engineer -- and knowing what I know about the tank, I don't see any fatal flaws with the design of the system.

TR4 at 63.

Yet even after providing that dubious and unsupported opinion (given that Mr. Perkins was not retained by the Respondents until after the Pit had been removed from the ground and its former location backfilled)[133], Mr. Perkins could only address the risk associated with the lack of written design certification statement by first admitting that the Respondents did not have such written design certification statement for the Pit and that such a certification would require a thorough engineering evaluation. TR4 at 63. In that regard, Mr. Perkins specifically testified that: "in terms of the actual risk posed by the fact that it did not have a professional engineer stamp and seal it, it is not in my mind a big issue[,]" Of course, Mr. Perkins than proceeded to undermine that very statement by acknowledging and admitting that: "[b]efore I will go and put my 'PE' stamp on it, I would do a much more thorough evaluation[.]" TR4 at 63. (Emphasis supplied).

4. Respondents Failed to Provide Required Secondary Containment for the Hazardous Waste Tank System at the Facility Known as the Acid Pit

Based upon the evidence and information identified and discussed above, it is clear that the Respondents failed to comply with applicable new tank system written design certification statements of 40 C.F.R. § 264.192(b) – (f), in violation of 40 C.F.R. § 264.192(a) and (g), by

[133] *See* TR4 at 107 – 108.

failing to obtain and keep on file at the facility written statements including a written assessment, reviewed and certified by a qualified Professional Engineer, in accordance with 40 C.F.R. § 270.11(d), attesting that the new tank system – *i.e.*, the Pit – at the Facility had sufficient structural integrity and was acceptable for the storing and treating of hazardous waste.

Count V – Respondent Failed to Conduct Required "Once Daily" Operating Inspections of the Acid Pit

1. Acid Pit Inspection Failure Allegations

In Count V of the Complaint, Complainant alleges, *inter alia*, that the Respondents were subject to the 40 C.F.R. § 264.195 hazardous waste tank system inspection requirements, including the 40 C.F.R. § 264.195(b) requirement that "[t]he owner or operator must inspect at least once each operating day data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design" and the 40 C.F.R. § 264.195(h) requirement to "document in the operating record of the facility an inspection of those items in [40 C.F.R. § 264.195] paragraphs (a) through (c) on each operating day, or weekly, pursuant to 40 C.F.R. § 264.195(d), if leak detection systems are used to alert facility personnel to leaks or workplace practices have been established and implemented to ensure leaks are promptly identified. EPA further alleges that Respondents failed to comply with such daily operating inspection and/or documentation requirements with respect to the hazardous waste tank system at the Facility known as the Pit. Complaint at 9 -10, ¶¶ 58 – 62.

In their Answer, the Respondents once again deny the above allegations based upon the same false assumption and erroneous *affirmative* defense (*i.e.*, that the Pit is not a regulated hazardous waste holding tank) asserted in response to Complainant's Count III and IV allegations. Answer at 9, ¶¶ 54 – 57. Complainant has addressed these assertions, *supra*, and

asserts that the Respondents have failed to comply with the applicable hazardous waste tank system daily operating inspection requirements that applied to the Pit at all times herein relevant.

2. Regulatory Requirements

40 C.F.R. § 264.195(b) provides that "[t]he owner or operator must inspect at least once each operating day data gathered from hazardous waste tank system monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design. 40 C.F.R. § 264.195(c) also requires that, on each operating day, the above ground portions of the tank system must be inspected to detect corrosion or releases of waste and construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, must be similarly inspected to detect erosion or signs of releases of hazardous waste unless leak detection systems are used to alert facility personnel to leaks or workplace practices have been established and implemented to ensure leaks are promptly identified, such that the alternative weekly inspection requirements of 40 C.F.R. § 264.195(d) are applicable, if documented in the facility's operating record. 40 C.F.R. § 264.195(h) further required that the owner or operator of a hazardous waste tank system must document in the operating record of the facility an inspection of those items in paragraphs (a) through (c) of this section.

3. Relevant Evidence

In Question 18.f. of the 2/4/2008 IRL that EPA sent to Chem-Solv, the Agency specifically asked Chem-Solv to "[s]ubmit any and all inspection records for the Pit."[134] In response to that request for the submission of "inspection records," Chem-Solv provided no

[134] In the preface to this Question, EPA specifically identified the inspection records sought as "Regarding the pit at the acid transfer/container wash station" of the Facility. CX 22 at EPA 1069, ¶ 18.

submissions whatsoever, and answered EPA's inspection record submission request by stating that:

> Tank was visually inspected each time the water was pumped and during both solids removals. Management recorded no defects or deviation from normal operation at any time. Any defect, leak or otherwise would be noted and submitted by management as per normal with any vessel.

CX 23 at EPA 1084, ¶ 18.f. Chem-Solv further provided EPA with information as to the frequency that water was pumped out of the Pit and solids were removed from the Pit in response to questions asked by EPA in the 11/16/2007 IRL. In response to 11/16/2007 IRL question 7.c. seeking information from Chem-Solv as to how often the Pit was cleaned out[135], Chem-Solv responded by stating that:

> Wash water is pumped from the [P]it into a storage tank adjacent to the acid pad when full and tested for pH prior to shipment to processing facility.

CX 21 at EPA 658, ¶ 7.c.

In response to a follow-up question in that same 11/16/2007 IRL seeking Chem-Solv's submission of a waste determination for Pit sludge and documentation of its disposal[136], Chem-Solve further stated that:

> . . . sludge removal is only required in frequently [sic].

CX 21 at EPA 658, ¶ 7.d.

The certified statements of Chem-Solv's Vice President and General Manager, Jamison G. Austion, as set forth in the above-cited Chem-Solv IRL Responses, together amount to a clear admission that the Respondents did not perform the required tank system inspections of the Pit each operating day or on any type of regular schedule or frequesncy. Yet in addition that

[135] *See* CX 20 at EPA 643, ¶ 7.c.

[136] *See* CX 20 at EPA 643, ¶ 7.d.

admission, Ms. Lohman confirmed, without hesitation, that Chem-Solv had failed to provide inspection records for the Pit on the multiple occasions when VADEQ had requested Facility hazardous waste tank inspection records for review. *See*, TR1 at 105 – 106. Ms. Lohman was quite clear on that point, as her testimony below illustrates:

> Q. Did Mr. Lester or anyone from Chemsolv or Austin Holdings ever provide you or DEQ with inspection logs or records evidencing that the pit was inspected in any way of each day of operation?
>
> A. No.
>
> Q. Did Mr. Lester or anyone from Chemsolv or Austin Holdings ever provide you or DEQ with inspection logs or records evidencing that the pit was inspected on an occasional basis for any purpose?
>
> A. No.
>
> Q. Did you ask for inspection records pertaining to the pit?
>
> A. No.
>
> Q. You did not ask for inspection records regarding the pit?
>
> A. We asked for inspection records for inspecting hazardous waste tanks and containers.
>
> Q. And did you ask for that on more than one occasion?
>
> A. Yes.
>
> Q. Did Mr. Lester or anyone from Chemsolv or Austin Holdings ever provide you any inspection record pertaining to the pit itself?
>
> A. No.

4. <u>Respondents Failed to Perform Required Tank System Daily Operating Day Inspections of the Acid Pit or to Document Any Implementation of an Alternate Inspection Schedule</u>

Based upon the evidence and information provided by the Respondents in Chem-Solv's IRL Responses and the testimony provided by Ms. Lohman, the Respondents clearly failed to

document in a Facility operating record, pursuant to 40 C.F.R. §§ 264.195(d) and (h), that leak detection systems are used to alert facility personnel to leaks, or that workplace practices had been established and implemented to ensure leaks were promptly identified, at the hazardous waste tank system known as the Pit, which was owned and operated by the Respondents at the Facility at all times herein relevant. That evidence further establishes that the "once each operating day" inspection requirements of 40 C.F.R. § 264.195(b) were applicable to the Pit and to the Respondents. Finally, Respondent Chem-Solv's own IRL Response admissions further establish that the Respondents failed to comply such "once each operating day" inspections of the hazardous waste tank system at the Facility that is known as the Pit, in violation of 40 C.F. R. § 264.195(b).

Count VI – Respondents Failed to Implement and Comply With Volatile Organic Air Emission Control Standards Applicable to Them and to the Acid Pit

1. Subpart CC Air Emission Control Implementation Failure Allegations

In Count VI of the Complaint, Complainant alleges, *inter alia*, that the Respondents and the Pit were subject to the 40 C.F.R. § 264.1080(a) requirements applicable to owners and operators of facilities that treat, store or dispose of hazardous waste in tanks that are subject to subpart J of 40 C.F.R. Part 264 and were required to comply with the requirements of 40 C.F.R. § 264.1082(b), which provides that the owner and operator of a tank shall control air pollutant emissions from such unit in accordance with the standards specified in 40 C.F.R. § 264.1084 through 1087, including the Tank Level 1 or Tank Level 2 controls specified in 40 C.F.R. § 264.1084(c) or (d). *See* Complaint at 10 – 12, ¶¶ 63 – 71.

40 C.F.R. § 264.1082(c) contains a list of tank, surface impoundment exemptions from the standards specified in exemptions 40 C.F.R. § 264.1084 through 1087. Respondents have

not claimed that the Acid Pit qualified for, or met, any of these listed exemptions --- one of which applies to:

> A tank . . . for which all hazardous waste entering the unit has an average V[olatile] O[rganic] concentration at the point of waste origination of less than 500 parts per million by weight (ppmw)." The average VO concentration shall be determined using the procedures specified in § 264.1083(a) of this subpart. The owner or operator shall review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the unit.

40 C.F.R. § 264.1082(c)(1).

In Count VI of the Complaint, Complainant further alleges that the Respondents failed to implement either Tank Level 1 or Tank Level 2 controls for the Pit by Responsdents' failure to performed a variety of Tank Level 1 or 2 control requirements, including the Tank Level 1 requirement to equip the Pit with a "fixed roof" designed to meet the specifications of 40 C.F.R. § 264.1084(c)(2) and (3) or the Tank Level 2 requirement to control air pollutant emissions through the use of: 1) fixed-roof tanks equipped with an internal floating roof; 2) tanks equipped with an external floating roof; 3) a tank vented through a closed-vent system to a control device; 4) a pressure tank, and 5) a tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device. Complaint at 10 – 12, ¶¶ 63 – 71.

In their Answer, the Respondents again deny Complainant's allegations based upon the false assumption and erroneous *affirmative* defense (*i.e.*, that the Pit is not a regulated hazardous waste holding tank) asserted in response to Complainant's Count III through V allegations. Answer at 9 - 10, ¶¶ 64 – 72. Complainant has addressed these assertions, *supra*, and asserts that the Respondents have failed to comply with the applicable hazardous waste tank system air pollutant emission control requirements and provisions that applied to the Pit, and to them, at all times herein relevant.

2. Regulatory Requirements

As a hazardous waste storage tank, the Pit at the Facility was subject to the requirements of 40 C.F.R. Part 264, Subpart J, including the requirement of 40 C.F.R. § 264.200 which provides, that "[t]he owner and operator shall manage all hazardous waste placed in a tank in accordance with the applicable requirements of [40 C.F.R. Part 264] subparts, AA, BB and CC . . . ." 40 C.F.R. § 264.1082(b) provides that the owner and operator of a tank shall control air pollutant emissions from a hazardous waste storage tank in accordance with the standards specified in 40 C.F.R. § 264.1084 - .1087 unless such tank is exempt. Chem-Solv was the owner and operator of the Pit, which it operated at all relevant times as a hazardous waste storage tank, and Chem-Solv has not established that the Pit was exempt from the 40 C.F.R. Part 264, Subpart Subpart CC air pollutant control requirements.

In order to control air pollutant emissions from a hazardous waste storage tank, the owner or operator of the tank must implement certain controls, known as "Tank Level 1" or "Tank Level 2" Controls. *See* 40 C.F.R. § 264. 1084(a)(1). Generally, Tank Level 1 Controls pertain to tanks with fixed-roof covers only. *Id.* Tank Level 2 Controls include such items as: 1) fixed-roof tanks equipped with an internal floating roof; 2) tanks equipped with an external floating roof; 3) a tank vented through a closed-vent system to a control device; 4) a pressure tank, and 5) tanks located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device.

3. Relevant Evidence

At the time of the May 23, 2007 EPA inspection, EPA took samples of the settled solids stored in the Pit. Analysis of the representative Pit solids samples collected by EPA on May 23, 2007 indicated that the settled solids stored in the Pit contained a Volatile Organic

concentration of greater than the regulatory threshold of 500 ppm by weight. CX 15. In that regard, Ms. Peggy Zawodny, an experienced laboratory analyst whose primary responsibilities are volatile organic analyses, testified as to the result her analysis of the Pit solids samples collected by EPA inspector Houghton on may 23, 2007 . TR2 at 4, 8 - 29. The initial analysis Ms. Zawodny performed for volatile organics on the Pit samples collected by Mr. Houghton from the Acid Pit at the Facility on May 23, 2007detected twenty-eight volatile organic compounds which were on the RCRA TCLP list. CX 15 at EPA 261 – 263 (*as identified in* **bold**). These analytical results established that the concentration of the volatile organic compounds identified in the representative samples collected from the Acid Pit on May 23, 2007 were well above the 500 ppmw concentration. CX 15 at EPA 261 – 263. In fact, Ms. Zawadney testified that her sample analysis for tetrachloroethylene *alone*, demonstrated that the volatile organic concentration for that compound in the Acid Pit sample was "considerably" above the regulated concentration of 500 ppmw. TR2 at 28 – 29. CX 15 at EPA 263.

EPA's expert witness, Dr. Joe Lowry, also stated that in his expert opinion, the sludge sample analysis that Chem-Solv itself had performed on the solids removed from the Acid Pit in January of 2008 further indicated that the volatile organic concentration of tetrachloroethylene *alone* in those samples was "considerably over" 500 ppmw. TR2 at 107. CX 63 at EPA 1799.

A detailed discussion of the Tank Level 1 and 2 Controls is unnecessary since Chemsolv did not have in place, or implement, *any* air emissions controls for the Pit. Mr. Cox specifically observed, during his may 15, 2007 Facility inspection, that the Pit could not possibly have met 40 C.F.R. Part 264, Subpart CC, requirements. TR3 at 12 - 13. He briefly explained the purpose of the 40 C.F.R. Part 264, Subpart CC, air emission control requirements[137] and quite explicitly explained the basis for his conclusion that the Respondents had failed to comply with

[137] *See* TR3 at 50 -51.

such requirements[138] in the following testimony (and upon viewing the photograph of the Pit that he took during the course of his May 15, 2007 Facility inspection):

> Q. Now are you familiar with 40 CFR Part 26419 Subpart CC?
>
> A. Yes.
>
> Q. This is what for air [emi]ssions?
>
> A. Air [emi]ssions from tanks.
>
> Q. Did you see anything at the tank that would potentially qualify as the controls required by Subpart CC?
>
> A. No, if subject to Subpart CC this tank would need to be closed, this would need to have some kind of lid and, obviously, it is an open top tank.

TR3 at 12 – 13. CX 17 at EPA 313.

Additional photographic evidence of the Pit is present in the record, including another photograph taken on May 15, 2007 and one taken during the subsequent May 23, 2007 Facility inspection CX 19 at EPA 408; CX 18 at EPA 358. Each of the photos of the Pit that are in evidence at the time it was operated at the Facility depicts an open sub-grade tank with no visible form of air emission control device, such as: a fixed-roof equipped with an internal floating roof; an external floating roof; a closed-vent system to a control device; a pressure vessel, or location inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device. *See e.g.,* CX 19 at EPA 408; CX 18 at EPA 358.

The Respondents' own expert, Mr. Perkins, even testified, on the record, that:

> If this were a hazardous waste tank -- if, a big "if," if it were, then [Respondents] would[n't] come close to addressing the requirements under Subpart CC . . . .

TR4 at 64. (*Emphasis supplied*).

[138] Mr. Cox additionally testified that he was not aware of any efforts by the Respondents even to partially comply with these requirements. TR3 at 52.

In addition to the above, the Respondents have not asserted any affirmative defense claiming that the Acid Pit at the Facility met any of the 40 C.F.R. § 264.1082(c) provisions that would exempt that tank from the applicable requirements of 40 C.F.R. § 264.1082(a) and (b) or the standards set forth in 40 C.F.R. § 264.1084 through 40 C.F.R. § 264.1087. Nor have the Respondents ever demonstrated that they qualify for any such exemption, using the procedures specified in 40 C.F.R. § 264.1083(a) or otherwiswe.

4. Respondents Failed to Comply with Applicable Volatile Emission Control Requirements for the Hazardous Waste Storage Tank Known as the Acid Pit

Based upon the evidence and information identified and discussed above, including the analytical sampling results, photographic evidence and testimony, it is evident that the hazardous waste sub-grade tank, or Pit, at the Facility was subject both to 40 C.F.R. Part 264 Subpart J and CC requirements and that the Respondents failed to implement the requisite and applicable Tank level 1 or Tank Level 2 controls necessary to properly control Volatile Organic air emissions at that unit. As a result, the Respondents violated the requirements of 40 C.F.R. §§ 264.1082(b) and 264.1084(d) and are subject to civil penalties for such violations.

Count VII - Respondents Failed to Comply with Applicable Tank System Closure Requirements for the Hazardous Waste Storage Tank Known as the Acid Pit

1. Closure and Post-Closure Care Allegations

In Count VII of the Complaint, Complainant alleges, *inter alia*, that the Respondents, as owners and operator of a hazardous waste management facility and failed to comply with the closure and post-closure care requirements of 40 C.F.R § 264.197, applicable to the them and to the tank system known as the Pit, by failing to comply with the associated applicable requirements of 40 C.F.R Parts G and H. Complaint at 12 – 13, ¶¶ 72 – 84.

Respondents once again deny Complainant's allegations in their Answer, based upon the false assumption and erroneous *affirmative* defense (*i.e.*, that the Pit is not a regulated hazardous waste holding tank) asserted in response to Complainant's Count III through VI allegations. Answer at 10 - 12, ¶¶ 73 – 85. Complainant has addressed these assertions, *supra*, and asserts that the Respondents have failed to comply with the applicable hazardous waste tank system air pollutant emission control requirements and provisions that applied to the Pit, and to them, at all times herein relevant.

2. Regulatory Requirements

40 C.F.R. § 264.110 provides that the closure and post-closure care requirements of 40 C.F.R. §§ 264.111 through 264.115 apply to the owners and operators of all hazardous waste management[139] facilities. The 40 C.F.R. § 264.111 "closure performance standard" further provides that "[t]he owner or operator [of a hazardous waste management facility] must close the facility in a manner that: (a) Minimizes the need for further maintenance; and (b) Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere; and (c) Complies with the closure requirements of this part, including, but not limited to, the requirements of §§264.178, 264.197, 264.228, 264.258, 264.280, 264.310, 264.351, 264.601 through 264.603, and 264.1102. (*Emphasis supplied*).

The 40 C.F.R. § 264.112 "closure plan" requirements provide, in part and at 40 C.F.R. § 264.112(a)(1), that "the owner or operator of a hazardous waste management facility must have a written closure plan." at 40 C.F.R. § 264.112(b) additionally provides that such plan "must

[139] The term "*Management or hazardous waste management*" is defined to mean and include "the systematic control of the collection . . . storage . . . treatment . . and disposal of hazardous waste." 40 C.F.R. § 260.10.

identify steps necessary to perform partial and/or final closureof the facility. . . and must include, at least" each of six additional requirements, and two other potential requirements (if applicable), set forth therein.

The 40 C.F.R. Part 264, Subpart H, "financial requirements" apply to owners and operators of, among other things, "[t]ank systems that are required under [40 C.F.R] § 264.197 to meet the requirements for landfills." 40 C.F.R § 264.140(b)(3). Those requirements include provisions of cost estimates for closure and financial responsibility. See 40 C.F.R §§ 264.142 and 264.143.

The 40 C.F.R. § 264.197 "closure and post-closure care" requirements specifically applicable to tank systems provide that:

> (a) At closure of a tank system, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless § 261.3(d) of this chapter applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems must meet all of the requirements specified in subparts G and H of this part.
>
> (b) If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in paragraph (a) of this section, then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills (§ 264.310). In addition, for the purposes of closure, post-closure, and financial responsibility, such a tank system is then considered to be a landfill, and the owner or operator must meet all of the requirements for landfills specified in subparts G and H of this part.
>
> (c) If an owner or operator has a tank system that does not have secondary containment that meets the requirements of § 264.193 (b) through (f) and has not been granted a variance from the secondary containment requirements in accordance with § 264.193(g), then:
>
> (1) The closure plan for the tank system must include both a plan for complying with paragraph (a) of this section and a contingent plan for complying with paragraph (b) of this section.
>
> (2) A contingent post-closure plan for complying with paragraph (b) of this section must

be prepared and submitted as part of the permit application.

(3) The cost estimates calculated for closure and post-closure care must reflect the costs of complying with the contingent closure plan and the contingent post-closure plan, if those costs are greater than the costs of complying with the closure plan prepared for the expected closure under paragraph (a) of this section.

(4) Financial assurance must be based on the cost estimates in paragraph (c)(3) of this section.

(5) For the purposes of the contingent closure and post-closure plans, such a tank system is considered to be a landfill, and the contingent plans must meet all of the closure, post-closure, and financial responsibility requirements for landfills under subparts G and H of this part.

3. <u>Relevant Evidence</u>

When a hazardous waste storage tank is removed from the ground, a regulatory protocol dictates the manner in which it is removed. The specific regulatory requirements for closure of a hazardous waste tank system require the owner or operator to remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste.[140] The closure plan, closure activities and financial requirements for tank systems must the requirements specified in 40 C.F.R Part 264, Subparts G and H. *See* 40 C.F.R. § 264.197(a). Moreover, if the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in 40 C.F.R. § 264.197(a), then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills (40 C.F.R. § 264.310). In addition, for the purposes of closure, post-closure, and financial responsibility, such a tank system is then considered to be a landfill, and the owner or operator must meet all of the requirements for landfills specified in subparts G and H of 40 C.F.R. Part 264.

[140] Unless such materials are no longer solid waste, as described in 40 C.F.R. § 261.3(d).

If an owner or operator has a tank system that does not have secondary containment that meets the requirements of §264.193(b) through (f) and has not been granted a variance from the secondary containment requirements in accordance with 40 C.F.R. § 264.193(g), then: (1) the closure plan for the tank system must include both a plan for complying with 40 C.F.R. § 264. 197(a) and a contingent plan for complying with 40 C.F.R. § 264.197(b).

As demonstrated above, the Pit was a hazardous waste storage tank system which did not have secondary containment that met the requirements of 40 C.F.R. § 264.193(b) and (c) and had not been granted a variance pursuant to 40 C.F.R. § 264.193(g). Chem-Solv closed the Acid Pit and removed the carbon steel tank which constituted the "Pit" from the ground on or about February 1 2008. Answer at 3, ¶ 21. In Question 4 of EPA's 4/1/2008 IRL, the Agency asked Chem-Solv to:

a. Submit documentation of the removal of the tank. Submit picture, copy of the contract, etc.
b. Submit disposal records for the 'pit water' and the 'pit sludge' removed prior to removal of the tank.
c. Submit disposal records for the tank itself.
d. Were samples taken of the surrounding soil? If so submit all analytical results.

CX 24 at EPA 1142, ¶ 4.a. – d. In response to that request, Respondent Chem-Solv stated, in its 4/4/08 IRL Response, that:

a. Tank removal photos are in attachment 4a.
b. These records were attached to the response to EPA Request for Information date February 4, 2008 as attachment 17e. A duplicate copy of this information is attached in this response to Attachment 4b.
c. N/A – Tank was observed by EPA & DEQ personnel during visit on March 27. 2008. Photos 1 & 2 can be seen in attachment 4c.
d. <u>A soil sample was taken with no analytical results</u>.

CX 25 at EPA 1147 - 1148, ¶ 4.a. – d. (*Emphasis supplied*). Attachment 4.a. to Chem-Solv's 4/4/08 IRL Response is a set of two photos depicting the clean-out of the Pit. CX 25 at EPA 1164. Attachment 4.b. to Chem-Solv's 4/4/08 IRL Response is uniform Hazardous Waste

Manifest 004172818 JJK, dated February 20, 2008, showing the disposal of 35 drums of D039 and D040 "Hazardous waste solid NOS (trichloroethylene, perchlorethylene). CX 25 at EPA 1152. Attachment 4.c. to Chem-Solv's 4/4/08 IRL Response is a set of two photos depicting side and inside views of the removed sub-grade tank known as the Pit. CX 25 at EPA 1163.

This series of responses to EPA's 4/4/08 IRL questions, which were submitted in writing and certified Chem-Solv vice President and General Manager Jamison G. Austin (CX 25 at EPA 1147 – 1148, in combination with the January 30, 2008 ProChem Analytical Incorprated Certificate of Analysis Final Report of the Pit sludge samples submitted for analysis by Chem-Solv under the "Project" name of "Pit Closure"--- which report was addressed to Chem-Solv President Glenn Austin on that date--- clearly demonstrates that Chem-Solv engaged in the closure of the Pit at a time it fully knew and was aware that the Pit contained hazardous waste. *See* CX 63 at EPA 1797 – 1797. Despite this fact, Chem-Solv nevertheless pulled the Pit out of the ground in disregard of all regulatory protocols, without a closure plan, without an analysis of the soil that surrounded the Pit[141], and without a demonstration of financial responsibility that Chemsolv had sufficient resources to clean up any potential contamination from the Pit. This is evidenced by Chem-Solv's failure to produce to EPA or introduce into evidence any closure, post-closure care or finanacial responsibility documentation at any time during these proceedings and through Ms. Lohman's testimony that, to her knowledge, VADEQ never received a RCRA closure plan, or a proposed RCRA closure plan, from Chem-Solv for the removal of the Pit and that VADEQ never received any type of communication or notice from anyone representing Chem-Solv or Austin Holdings or the Facility at 1140 and 1111 Industry Avenue

[141] Mr. Cox testified that, in his experience, a closure plan would need to include proposed procedures for the analysis of soil samples because "[t]hat would be one of the things that you would want to confirm that there have been no releases from the tank. That would be to take soil samples especially if there was any stained areas to determine if the staining was caused by chemicals or just naturally occurring." TR3 at 27.

that advised VADEQ that the sub-grade tank referred to as the Pit was going to be removed. TR1 at 152. She further testified that at no time prior to March 27, 2008, did VADEQ receive any type of communication or notice from anyone representing Chem-Solv, Austin Holdings or the Facility advising VADEQ that the sub-grade tank known at the Pit had, in fact, been removed. TR1 at 152 – 153.

Mr. Perkins, Respondent's paid expert, never visited the Facility until after the Pit had been removed and provided Respondents with no guidance regarding that closure of that sub-grade tank or about soil sampling. TR4 at 107 – 108. Nevertheless, he attempted to explain away the Respondents' failure to meet requisite RCRA closure, post-closure care and financial responsibility requirements by opining that the RCRA closure process for a system like this ". . . would essentially follow the same steps that [Respondents] took with the possible exception that the soil sample collected, [VA] D[E]Q may have requested that be analyzed." TR4 at 64. Despite this supposedly informed opinion, Mr. Perkins had to qualify these very remarks with the prefatory statement that "we didn't speak with the [VAD]EQ about the RCRA closure process for a system like this." TR4 at 64.

4. <u>Respondents Failed to Comply with Applicable Closure and Post-Closure Care Requirements for the Facility Tank System known as the Acid Pit</u>

The evidence in the record is sufficient to establish that the Respondents failed in their obligations to comply with the applicable closure, post-closure care and financial responsibility requirements of 40 C.F.R. § 264.197, including the requirements therein that are set forth in 40 C.F.R. Part 264, Subparts G and H, that are associated with their removal and required closure of the Facility tank system known as the Pit. Respondents' complete failure, at any time during these proceedings, to provide any evidence to the contrary further supports the conclusion that Respondents violated the requirements of 40 C.F.R. § 264.197 by failing to comply with the

applicable closure, post-closure care and financial responsibility requirements therein and in C.F.R. Part 264, Subparts G and H.

5. <u>Respondents Remain Obligated to Perform a Proper and Complete Tank System Closure of the Acid Pit Including the Initiation, Implementation and Performance of All Applicable Subpart G and H Requirements</u>

The Respondents have failed to comply with applicable closure, post-closure care and financial responsibility requirements of 40 C.F.R. § 264.197 in their removal of the Pit and its ancillary equipment. They have also failed to perform any investigation to determine whether Hazardous waste leaked and contaminated the area surrounding the tank and/or its underlying soils.

Chem-Solv and Austin Holdings must be ordered to perform the tank system closure and post-closure care requirements of 40 C.F.R. § 264.197 that apply to their improper Pit removal activities. EPA emphasizes that if, during the course of such required activities, Chem-Solv and Austin holdings identify contaminated soils which cannot be practically removed or decontaminated (as required in 40 CFR 264.197(b)), then such tank system must be closed as a landfill and Respondents must perform post-closure care in accordance with the 40 C.F.R. § 264.310 closure and post-closure care requirements that apply to landfills. The Respondents would then be obligated to meet all of the requirements for landfills specified in Subparts G and H of 40 C.F.R. Part 264 with regard to closure, post-closure, and financial responsibility. Pursuant to the landfill closure and post-closure requirements of 40 C.F.R. § 264.310, owners and operators must comply with all post-closure requirements contained in 40 C.F.R. §§ 264.117 through 264.120, including maintenance and monitoring throughout the post-closure care period.

In light of the above, EPA seeks an order requiring the Respondents, to <u>properly</u> close the hazardous waste tank system known as the Pit in accordance with all applicable 40 C.F.R.

§ 264.197 tank system closure and post-closure care requirements, and those additional closure and post-closure and financial requirements of 40 C.F.R. Part 264, Subparts G and H, which are properly determined to be applicable.

VI. DETERMINATION OF CIVIL PENALTY AMOUNT

Complainant requests the assessment of a civil penalty in the amount of Six Hundred Nineteen Thousand, Three Hundred and Thirty-Nine Dollars ($619,339.00) for the seven RCRA violations alleged in the Complaint and proven at the hearing. The proposed penalty is based upon Complainant's consideration of the statutory penalty factors set forth in Section 3008(a)(3) of RCRA, 42 U.S.C. § 6928(a)(3), which include the seriousness of the violation and any good faith efforts to comply with the applicable requirements. These factors were applied by the Complainant to the particular facts and circumstances of this case with specific reference to EPA's October, 1990 RCRA Civil Penalty Policy, as revised in June, 2003 ("*RCRA Civil Penalty Policy*"), which reflects the appropriate *Adjustment of Civil Monetary Penalties for Inflation,* pursuant to 40 C.F.R. Part 19 and the September 21, 2004 memorandum by Acting EPA Assistant Administrator Thomas V. Skinner entitled, *Modifications to EPA Penalty Policies to Implement the Civil Monetary Penalty Inflation Adjustment Rule* (" Skinner Memorandum"). Pursuant to 40 C.F.R. Part 19, and as provided in the Skinner Memorandum and in the *RCRA Civil Penalty Policy*, penalties for RCRA violations occurring after January 30, 1997 were increased by 10% to account for inflation, not to exceed a $27,500.00 per violation statutory maximum penalty. Pursuant to 40 C.F.R. Part 19, and as provided in the Skinner Memorandum, penalties for RCRA violations occurring after March 15, 2004 and before January 13, 2009[142]

[142] *See* the December 29, 2008 EPA implementing Memorandum, entitled "*Amendments to EPA Civil Penalty Policies to Implement the 2008 Civil Monetary Penalty Inflation Adjustment Rule (Effective January 12, 2009).*

have been increased by an additional 17.23% to account for subsequent inflation, not to exceed a $32,500.00 per violation statutory maximum penalty.

The *RCRA Civil Penalty Policy* provides a rational, consistent and equitable methodology for applying the statutory penalty factors enumerated above to the specific facts and circumstances of this case. Pursuant to the *RCRA Civil Penalty Policy*, an initial gravity-based penalty was calculated for each violation based on two components: the potential for harm of the violation and the extent of deviation from the applicable requirement. The results of that analysis were used to select corresponding penalty values for single day and multi-day violations from the penalty matrices published in the *RCRA Civil Penalty Policy*. The initial penalty for each violation may be adjusted in accordance with the *RCRA Civil Penalty Policy* to account for other factors including any good faith efforts to comply with the applicable requirements, and any willfulness or negligence. In addition to the gravity-based penalty, the *RCRA Civil Penalty Policy* requires that penalty assessments capture any significant economic benefit that Respondent realized as a result of noncompliance.

> the Penalty Policy consists of: 1) determining the gravity based penalty for a particular violation, from a penalty assessment matrix (found on page 26 of the Penalty Policy); 2) adding a "multi-day" component, as appropriate, to account for the violation's duration; 3) adjusting the sum of the gravity based and multi-day components, up or down, for case specific circumstances, and (4) adding to this amount the appropriate economic benefit gained through non-compliance.

Penalty Policy at 1.

As a basis for calculating a specific penalty pursuant to 40 C.F.R. § 22.19(a)(4), Complainant has considered, among other factors, facts or circumstances that were unknown to Complainant at the time of issuance of the Complaint that become known to Complainant after the Complaint was issued. In regard to ability to pay a civil penalty, the burden of raising and

presenting evidence regarding any inability to pay a particular penalty rests with the Respondent, and in the instant case, Respondent did not raise an inability to pay defense.

Compliance with RCRA regulations requires a financial commitment which all hazardous waste generators are required to undertake. Successful implementation of the RCRA program depends on the compliance and accountability of all regulated hazardous waste facilities. In order to establish a level playing field for persons who must comply with RCRA, penalties are assessed in accordance with the statutory factors and with fairness and consistency so that costs are equitably shared among all regulated entities. This prevents any one violator from enjoying a competitive advantage by avoiding or delaying hazardous waste management expenses. Pursuant to the *RCRA Civil Penalty Policy*, the economic benefit of noncompliance may be included in the assessed penalty to ensure that a violator does not gain an economic advantage through its violations. The penalty proposed by Complainant in this matter was based upon the Respondent's failure to comply with certain provisions of the VAHWMR regarding the treatment, storage and/or disposal of hazardous waste.

A. Count I - Respondents Violated 40 C.F.R. § 270.1(b), and RCRA § 3005(a) and (e), 42 U.S.C. § 6925(a) and (e), by Operating a Hazardous Waste treatment, Storage and/or Disposal Facility Without a Permit or Interim Status From at Least May 23, 2007 Through February 20, 2008

With respect to the Count I allegations, a gravity-based penalty component of "moderate" potential for harm and a "moderate" extent of deviation is assessed for Respondent's failure to obtain a permit or interim status prior to the storage of hazardous waste. From May 23, 2007 through February 20, 2008, Respondent was storing pit water, EPA Hazardous Waste Code No. D022, chloroform, and pit sludge, EPA Hazardous Waste Code Nos. D039, tetrachloroethylene and D040, trichloroethylene, in a 1900 gallon tank and in drums at the Facility. In addition, Respondent was storing one fifty-five gallon drum of EPA Hazardous Waste Code No. D002,

sodium hydrosulfide at the Facility. Respondent failed to comply with the regulatory conditions to qualify for exemption from a permit because Respondent stored such wastes for a period of time exceeding the time allowed by the hazardous waste accumulation exemption specified in 40 C.F.R. § 262.34(a)(1)(iii). Therefore, Respondent was required to have a hazardous waste storage permit or interim status.

The permitting process is the backbone of the RCRA program because it ensures that facilities that manage hazardous waste handle such waste in such a manner as to minimize risk to human health or the environment presented by such waste. Operating a hazardous waste treatment, storage, or disposal facility without a permit or without qualifying for the 90-day accumulation exemption presents harm to the integrity of the RCRA regulatory program. Failure to obtain a permit and interim status impedes EPA and the state's ability to regulate hazardous waste activities by members of the regulated community, like Respondent, due to the fact that the RCRA regulatory program and Complainant rely upon the self-reporting of members of the regulated community. Storing for longer than 90 days presents the risk in that the longer a hazardous waste is stored and improperly managed, the greater the risk of deterioration of the tanks or containers holding such hazardous waste, and the greater the potential for harm to human health and the environment. TR3 at 39. Because the storage of hazardous waste violation continued for a significant time period, a multi-day penalty was assessed for 179 days which is the time period at which penalties for such violations may be capped under the *RCRA Civil Penalty Policy.* With a "moderate" potential for harm and "moderate" extent of deviation, a multi-day penalty is presumed appropriate under the *RCRA Civil Penalty Policy*. The moderate/moderate penalty assessment was calculated to be $8382.00, and the multi-day penalty was calculated to be $69,094.00 resulting in a total penalty of $77,486.00.

Penalty:	Potential for Harm:	Moderate	
	Extent of Deviation:	Moderate	$ 8,382.00
	Multi-Day for 179 Days	@ $386.00 per day	$ 69,094.00
	Total		$ 77,486.00

B. Count II – Respondents Violated 40 C.F.R. § 262.11 by Failing to Make Hazardous Waste Determinations for Solid Waste Generated and Stored at the Facility

With respect to the Count II allegations, a gravity-based penalty component of "*moderate*" potential for harm and a "*major*" extent of deviation from the regulatory requirement was assessed. The performance of hazardous waste determinations is the initial trigger for the implementation of the application of the RCRA regulations and the authorized VAHWMR which regulate hazardous waste from "*cradle-to- grave*", at a facility to ensure the safe handling and management of hazardous wastes. Respondent's failure to perform such determinations in regard to the pit sludge (D039 and D040), pit water (D022), and aerosol cans (D001 and/or D003) resulted in hazardous wastes not being identified as such and not being properly managed and handled at the Facility, thereby, posing a significant risk to human health and the environment. Additionally, the failure to perform such determinations poses a significant potential for harm to the integrity of the RCRA program which relies upon members of the regulated community, like Respondent, to identify hazardous wastes at the point of generation and institute those practices and procedures deemed necessary under RCRA for their safe handling, storage, treatment and/or disposal. The RCRA program counts on generators to self-assess and make waste determinations so that they may further manage their hazardous waste appropriately, this determination is the heart of the program and the crux of management of hazardous waste in avoidance of harm to human health and the environment. TR3 at 41-42. Respondent stored hazardous wastes in the waste acid pit and then partially removed such wastes

to containers in a facility warehouse creating a significant potential for the mismanagement of hazardous waste and release into the environment. TR3 at 41.

The *moderate/major* amount assessed was $12,250.00, and ten percent increase for history of noncompliance of $1225.00 was added to the moderate/major amount because Respondent had prior violations for the same failure to make waste determinations for the same wastes in 2005 at the Facility as evidenced by a warning letter issued by the Virginia Department of Environmental Quality. CX 40, EPA1509. The total penalty for Count II was calculated to be $13,475.00.

Penalty:	Potential for Harm:	Moderate	
	Extent of Deviation:	Major	$ 12,250.00
	History of Noncompliance: Increase of 10%		$ 1,225.00
	Total		$ 13,475.00

C. Count III - Respondents Violated 40 C.F.R. § 264.193(a) by Failing to Provide Tank System Secondary Containment Which Met the Requirements of 40 C.F.R. § 264.193(1)(a), (d) and (e) for the Acid Pit That was Used to Store Hazardous Waste at the Facility From at Least May 23, 2007 Through February 1, 2008

With respect to Count III, the potential for harm was assessed as "*moderate*" and the extent of deviation was determined to be "*moderate*". In order to prevent the release of hazardous waste or hazardous waste constituents to the environment, tanks which store hazardous waste are subject to 40 C.F.R. Part 264, Subpart J which sets forth regulations for the management of hazardous waste in tanks. Secondary containment in the form of a liner external to the tank, a vault, a double-walled tank, or an equivalent device which has been approved by the Director of the VADEQ is required by regulation for tanks which manage hazardous waste. Each of these devices must meet detailed regulatory construction and management requirements designed to ensure that hazardous wastes do not migrate to the environment. In the instant case,

the waste acid pit is adjacent to a swale or depression, as the EPA inspector testified, the swale "collects water, rainwater, wash water, whatever from the facility." TR1 at 257. He also testified that the swale has no side walls and when water gets too deep it goes around the facility's barrier and has the potential to migrate off-site. *Id.* The VADEQ inspector testified that there was no seal between the swale and the barricade. "We would often see water discharging [from the Facility] around the ends of the Jersey barricade offsite." TR1 at 99. The VADEQ inspector was concerned about water around the pit area flowing through the swale to the low point of the facility. TR1 at 81. Respondent made no attempt to meet the regulatory requirements to provide secondary containment for the waste acid pit at the Facility.

The moderate/moderate penalty was assessed to be $8382.00 for day one of the violation, plus a multi-day penalty of $69,094.00 which totals $77,476.00. In addition, an economic benefit of noncompliance was assessed for this violation. An engineering estimate was used for the *avoided* cost of installing secondary containment such as a concrete vault, i.e. site excavation, installation of a concrete wall and installation of leak detection, using $30,000.00 as the cost avoided and multiplying it by .605 (rule of thumb) which resulted as $18,150.00. TR3 at 44 - 46.

Penalty:	Potential for Harm:	Moderate	
	Extent of Deviation:	Moderate	$ 8,382.00
	Multi-Day for 179 Days	@ $386.00 per day	$ 69,094.00
	Economic Benefit of Noncompliance		$ 18,150.00
	Total		$ 95,626.00

D. Count IV - Respondents Violated 40 C.F.R. §264.192(g) by Failing to Obtain and/or Keep at the Facility Written Statements by those Persons Required to certify the Design of a Tank System in Accordance with the Requirements of 40 C.F.R. § 264.192(b) Through (f)

With respect to Count IV, the potential for harm was determined to be "moderate" and the extent of deviation was determined to be "moderate". Respondent owns a 1900 gallon hazardous waste tank known as the waste acid pit tank. This tank was used by the Respondent to store D039, D040, and D022 from at least May 23, 2007 through February 1, 2008. The waste acid pit tank is considered to be a new tank system within the meaning of 9 VAC 20-60-260A, which incorporates by reference 40 C.F.R *§* 262.10 and *§* 262.192(a). Respondent must obtain and keep on file, at the Facility, written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system in accordance with the requirements of 40 C.F.R. § 264.192(b) - (f) that attest that the tank system was properly designed and installed and that repairs, pursuant to 40 C.F.R. *§* 264.192(b) through (f) were performed. These written statements must also include the certification statement as required by 40 C.F.R. § 270.11(d).

The failure to have a written statement certifying that the design and installation of the waste acid pit was conducted in accordance with the RCRA regulatory requirements has the potential to put human health and the environment at substantial risk by creating a potential for harm. Emergency responders, local governments, inspectors, and any persons that periodically visit the facility need assurance that the tanks are constructed of appropriate design and meet safety requirements. TR3 at 47. Such written statements ensure that the Agency is aware of the status of hazardous materials and that the pit is constructed of the appropriate design and has the stamp of a professional engineer. TR3 at 47. The waste acid pit does not have secondary containment, the integrity of the waste acid pit tank is unknown and the Facility property

includes a natural drainage swale which flows through the Facility and continues off site. The Facility is located adjacent and upgradient to the Roanoke River. TR4 at 161. The failure of a tank being used to store hazardous waste can result in an injury or a release to the environment. Respondent claims that they currently remove wastewater from the waste acid pit and neutralize it due to the wastewater's potentially corrosive attributes. The corrosive attributes of the wastewater being stored in the waste acid pit create a potential for degradation of the pit. In addition, on May 23, 2007 the waste acid pit contained numerous hazardous constituents. CX15. Thus, the potential for harm to human health and the environment is significant when considering these facts.

In regard to the extent of deviation, the EPA inspector testified that he did not receive complete plans certified or stamped by a professional engineer. TR3 at 47. As Respondent's expert witness stated, "Before I will go and put my "PE" [Professional Engineer] stamp on it, I would do a much more thorough evaluation, but in terms of the actual risk posed by the fact that it did not have a professional engineer stamp and seal on it, it is not in my mind a big issue." TR4 at 63. There simply was no substantial attempt to meet the regulatory requirements to ensure proper design and installation of the waste acid pit tank.

An economic benefit was calculated for this violation. The estimated avoided cost to retain a professional engineer to certify the design of the tank system and supervise the installation of the tank system in accordance with the requirements of 40 C.F.R. § 264.192(b)-(f) was determined to be $5,000. Using the rule of thumb, multiplying $5,000.00 by .605, results in an economic benefit calculation of $3,025.00.

Penalty:	Potential for Harm:	Moderate	
	Extent of Deviation:	Moderate	$ 8,382.00
	Multi-Day for 179 Days	@ $386.00 per day	$ 69,094.00
	Economic Benefit of Noncompliance		$ 3,025.00
	Total		$ 80,501.00

E. Count V - Respondents Violated 40 C.F.R. §264.195(d) by Failing to document in the Facility Operating Record Inspections of the Acid Pit Tank System

With respect to Count V, the potential for harm was determined to be moderate and the extent of deviation from the regulatory requirement was determined to be moderate. A tank holding hazardous waste must be inspected once each operating day and such inspections are to be documented in the facility's operating record. The potential for harm in failing to meet the tank inspection requirement is significant because the failure to comply creates a risk that problems such as cracks, leaking, or structural issues will remain undetected. Respondent's waste acid pit tank failed to have secondary containment and was completely open on the top. Failure to complete daily inspections creates the harm that any leaks or releases will not be detected and kept at a minimum, such leaks or releases have the potential to become catastrophic if left unchecked. TR3 at 49. If there are no records regarding such inspections available for assessment, it is impossible to know whether or not a tank is in stable condition or in danger of being compromised. TR3 at 49.

Although Respondent claims to have made sporadic visual observation by employees who were adding material to or removing material from the waste acid pit tank, there were not documented records of inspections at the Facility or provided to the Complainant.

Penalty:	Potential for Harm:	Moderate	
	Extent of Deviation:	Moderate	$ 8,382.00
	Multi-Day for 179 Days	@ $386.00 per day	$ 69,094.00
	Total		$ 77,476.00

F. Count VI - Respondents Violated 40 C.F.R. §§ 264.1080(b) and 264.1084(b) by Failing to Provide Required 40 C.F.R. Part 264, Subpart CC, Tank Level 1 or 2 Air Emission Controls at the Acid Pit

With respect to Count VI, the potential for harm was determined to be moderate and the extent of deviation from the regulatory requirements was determined to be major. The 40 C.F.R. Part 264, Subpart CC requirements regulate air emissions from volatile organic compounds in hazardous waste. Respondent's waste acid pit tank which held hazardous waste was subject to Subpart CC regulations. Respondent stored hazardous waste in the waste acid pit tank. The waste acid pit tank was completely open to the environment with no top, cap, or cover. The Subpart CC requirements require that Respondent, at a minimum, maintain air emission equipment and structural controls, inspect such equipment and document all inspections. This requirement is in place to avoid the storing of volatile organics in open tanks, allowing a significant portion of them to simply evaporate as opposed to dealing with them properly. TR3 at 51. Respondent's failure to comply with these regulatory requirements resulted in the potential for the release of volatile organic chemicals into the atmosphere. The release of VOCs to the atmosphere presents a substantial potential for harm both to human health and the environment. VOCs are a suspected carcinogen, can pose a risk of fire, and are implicated in the deterioration of the atmospheric ozone. There was no attempt to comply with these requirements, and therefore other important regulatory requirements were also violated as a result.

An economic benefit was calculated for this violation. The estimated avoided cost to design, manufacture and install a lid on the 1900 gallon waste acid pit tank or install a new covered tank was determined to be $10,000.00. A rule of thumb calculation, multiplying .605 times $10,000.00, results in an economic benefit of $6,050.00.

Penalty:	Potential for Harm:	Moderate	
	Extent of Deviation:	Major	$ 12,250.00
	Multi-Day for 179 Days	@ $1000.00 per day	$ 179,000.00
	Economic Benefit		$ 6,050.00
	Total		$ 197,300.00

G. Count VII - Respondents Violated 40 C.F.R. § 264.197 from at least May 23, 2007 through February 1, 2008, by Failing to Comply With Tank System Closure and Post-Closure Requirements Specified Therein During Removal of the Acid Pit

With respect to Count VII, the potential for harm was determined to be moderate and the extent of deviation from the regulatory closure requirements was determined to be moderate. The tank closure requirements ensure that the tank is removed properly and that any hazardous waste generated by the removal of the tank is properly managed. Moreover, closure requirements ensure that any contamination remaining on-site or migrating off-site is addressed. Inexplicably, Respondent took samples of soil at the time they removed the waste acid pit tank in February of 2008, but failed to have such samples analyzed. Absent proper closure in accordance with the regulations, the potential for harm to the environment is substantial.

Respondent was required to have a written closure plan for the Facility. A written closure plan identifies the steps which must be taken to perform partial or final closure of a facility. The plan must be submitted to the Virginia Department of Environmental Quality and describe how the hazardous waste management units at the facility will be closed in accordance with the RCRA regulations including, but not limited to, a description of how the hazardous waste will be removed or disposed of. The VADEQ has the opportunity to review and comment on the plan and the plan is put out to public notice so that all interested parties can be made aware of the plan. Once the closure plan is approved by the VADEQ, Respondent is to implement such plan in accordance with its terms. In the instant case, Respondent failed to

provide a plan to the VADEQ outlining decontamination of the tank, the taking of soil samples, and the analysis of those samples, ground water monitoring, public comment or any other requirements. TR3 at 53. As Respondent's expert witness explained, "we didn't speak with the [VAD]EQ about the RCRA closure process for a system like this, and it would essentially follow the same steps that they took with the possible exception that the soil sample collected, [VAD]EQ may have requested that be analyzed." TR4 at 64. Respondent unilaterally removed its waste acid pit tank and the hazardous waste within such tank placing human health and the environment at substantial risk.

Penalty:	Potential for Harm:	Moderate	
	Extent of Deviation:	Moderate	$ 8,382.00
	Multi-Day for 179 Days	@ $386.00 per day	$ 69,094.00
	Total:		$ 77,476.00

VII. CONCLUSION

For all of the reasons stated herein, Complainant respectfully submits that Respondents Chem-Solv and Austin Holdings should be found jointly and severally liable for the violations alleged in *each* of Counts I through VII of the Complaint. Complainant further asserts that it has demonstrated a proper consideration of the RCRA Section 3008(a)(3) penalty assessment factors, and a reasonable and proper application of the guidance set forth in the applicable Penalty Policies, in calculating the proposed penalty against the Respondents.

Upon consideration of all the relevant facts, testimony and other evidence presented at the Hearing and discussed herein, Complainant respectfully requests that this Court, at a minimum, adopt the penalty proposed and set forth herein by the Complainant and assess against Respondents Chem-Solv and Austin Holdings a joint and several civil penalty of no less than

$ 619,339.00. Complainant also respectfully requests that this Court issue to the Respondents an Order requiring them to implement and perform all 40 C.F.R. § 264.197 closure and post-closure care requirements applicable to the Acid Pit tank system in a timely and appropriate manner.

Respectfully Submitted,

_____ DATE

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A.J. D'Angelo
Benjamin D. Fields
Counsel for Complainant
U.S. EPA Region III
Office of Regional Counsel
1650 Arch Street
Philadelphia, PA 19103-2029

OF COUNSEL:
Cheryl L. Jamieson
Acting Chief, Waste and Chemical Law Branch (3RC30)
U.S. EPA Region III
Office of Regional Counsel
1650 Arch Street
Philadelphia, PA 19103-2029

Peter J. Raack
Office of Civil Enforcement (Mail Code 2249A)
U.S. EPA Headquarters
Ariel Rios Building
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460