IN THE COURT OF COMMON PLEAS
STARK COUNTY, OHIO

STATE OF OHIO, ex rel. LEE FISHER ATTORNEY GENERAL OF OHIO,	:	CASE NO. 88-1258
	:	JUDGE KLIDE
Plaintiff,	:	CONSENT ORDER BETWEEN THE STATE OF OHIO AND VALLEY CORES, INC. AND JAMES VALENTINE
v.	:	
VALLEY CORES, INC., et al.	:	
Defendants.	:	

The Plaintiff, State of Ohio, ex rel. the Attorney General of Ohio ("State" or "Plaintiff"), having filed the Complaint in this action against Defendants, Valley Cores, Inc., James Valentine and Warren Lechtner, at the request of the Director of the Ohio Environmental Protection Agency ("OEPA" or "Ohio EPA"), to enforce the State of Ohio's hazardous waste and water pollution laws and the rules promulgated thereunder concerning the Defendants' waste handling practices at the Valley Cores, Inc. facility located at 1800-1/2 Allen Avenue S.E., Canton, Ohio 44707 (hereinafter also referred to as the "Facility"), and Plaintiff and Defendants Valley Cores, Inc. and James Valentine having consented to entry of this Order;

THEREFORE, without trial and upon the consent of the Plaintiff and Defendants Valley Cores, Inc. and James Valentine (also hereinafter referred to as the "Defendants") hereto, it is hereby ORDERED, ADJUDGED and DECREED as follows:

I. PERSONS BOUND

The provisions of this Consent Order shall apply to and be binding upon Defendant Valley Cores, Inc. ("Valley Cores"), its agents, officers, employees, assigns, successors, and predecessors in interest; and Defendant James Valentine ("Valentine"). Said provisions shall in no way apply to and be binding upon named Defendant Warren Lechtner or any other entity or person. Defendant Valley Cores shall provide a copy of this Consent Order to each consultant or contractor it employs to perform any work referenced herein. Should Defendant Valley Cores re-commence operations at its Facility, Defendant Valley Cores shall also provide a copy of this Consent Order to all employees. Further, Defendants Valley Cores and Valentine shall provide a copy of this Consent Order to any independent contractor employed to handle, treat and/or dispose of wastes generated, stored and/or disposed of by Valley Cores until such time as Defendants Valley Cores and Valentine certify to the Ohio EPA, pursuant to Ohio Administrative Code ("O.A.C.") Rule 3745-66-15, that all areas of the Valley Cores Facility where hazardous wastes have been treated, stored and/or disposed of, by Valley Cores, have been closed in accordance with the specifications contained in the approved closure plan pursuant to paragraph IV of this Consent Order.

II. SATISFACTION OF LAWSUIT

Compliance with the terms of this Consent Order shall constitute full satisfaction of any civil liability by Defendants Valley Cores and Valentine for all claims alleged against them in the Complaint including continuing violations occurring subsequent to the filing of the Complaint and before entry of this Consent Order. Nothing in this Consent Order shall be construed so as to limit the authority of the State of Ohio to seek relief for claims or conditions not alleged in the Complaint, including violations or conditions which occur after the filing of this Consent Order. Similarly, nothing in this Consent Order shall be construed so as to limit the authority of the State of Ohio to undertake any action against any person, including Defendants Valley Cores and Valentine, to eliminate or mitigate conditions at the Facility arising after the date hereof which may present a threat to the public health, welfare or the environment. In addition, the State of Ohio hereby specifically reserves the right to proceed against any other party or entity including, but not limited to, Defendant Warren Lechtner, for the violations alleged in the Complaint. The State of Ohio also reserves the right to proceed against any party or entity, including the Defendants, for any removal, remedial or corrective action, monitoring or testing that must be conducted at the Valley Cores Facility, or any costs incurred by the Ohio EPA under Ohio Revised Code

("O.R.C.") Sections 3734.20 through 3734.27. In the event that the State of Ohio brings an action under O.R.C. Sections 3734.20 through 3734.27, Defendants Valley Cores and Valentine reserve the right to maintain any applicable defense or claim against any such action.

III. JURISDICTION AND VENUE

The Court has both personal and subject matter jurisdiction over Defendants Valley Cores and Valentine. The Complaint states a claim upon which relief can be granted against Defendants Valley Cores and Valentine under Chapter 3734 of the Ohio Revised Code and the rules promulgated thereunder. Venue is proper in this Court.

IV. CLOSURE PLAN

Defendants Valley Cores and Valentine are ordered and enjoined to submit to the Ohio EPA, within thirty (30) days after the Court's entry of this Consent Order, and in response to the Ohio EPA's January 25, 1991 Notice of Deficiency issued to James Valentine, a modified closure plan pursuant to O.A.C. Rule 3745-66-12. Said plan is to consist of the terms of the closure plan previously submitted by the Defendants, which was received by the Ohio EPA on November 15, 1990, as modified by the terms identical in content to the terms contained in Appendix "A" attached hereto, except that the terms contained

in Appendix "A" shall be revised as specified in Appendix "B" attached hereto. Defendants Valley Cores, Inc. and James Valentine are ordered and enjoined to close the Valley Cores facility pursuant to the modified closure plan, as approved by the Ohio EPA, and pursuant to O.A.C. Rule 3745-66-13.

Further, with regard to the closure of the Valley Cores facility, Defendants Valley Cores and Valentine are hereby ordered and enjoined as follows:

(a) Defendants Valley Cores and Valentine shall submit, to the Ohio EPA, within thirty (30) days after the Court's entry of this Consent Order, a detailed written estimate of the cost of closing the Valley Cores facility in accordance with O.A.C. Rule 3745-66-42 and thereafter comply with said rule;

(b) If all on-site closure activities, not including groundwater monitoring, cannot be completed within one hundred eighty (180) days of Ohio EPA's approval of the closure plan, Defendants Valley Cores and Valentine shall demonstrate financial responsibility for sudden and non-sudden accidental occurrences as required by O.A.C. Rule 3745-66-47 and shall submit to Ohio EPA documentation of said demonstration within two hundred ten (210) days of Ohio EPA's approval of the closure plan. The stipulated penalties provision contained in Section VII shall not be applicable to the requirement to demonstrate compliance with O.A.C. 3745-66-47 as set forth in this subparagraph.

(c) Defendants Valley Cores and Valentine shall comply with the financial assurance requirements for closure of the Valley Cores facility pursuant to O.A.C. 3745-66-43 in accordance with the schedule set forth below. Said financial assurance shall be provided by a closure trust fund pursuant to O.A.C. 3745-66-43(A), except that the Defendants may request reimbursement for partial closure expenditures even if sufficient funds are not remaining in the closure trust fund to cover the maximum costs of closing the facility. Defendants Valley Cores and Valentine shall submit documentation to the Director of the Ohio EPA demonstrating said financial assurance within ten (10) days after each of the schedule deadlines set forth below. The schedule is as follows:

Twenty-five percent (25%) of the cost estimate of closure*, or $30,000.00, whichever is greater, by August 1, 1991;

Fifty percent (50%) of the cost estimate of closure*, or $60,000.00, whichever is greater, by October 1, 1991:

Sixty-two and one-half percent (62-1/2%) of the cost estimate of closure*, or $75,000.00, whichever is greater, by February 1, 1992;

Seventy-five percent (75%) of the cost estimate of closure*, or $90,000.00, whichever is greater, by May 1, 1992;

Eighty-seven and one-half percent (87-1/2%) of the cost estimate of closure*, or $105,000.00, whichever is greater, by August 1, 1992;

One hundred percent (100%) of the cost estimate of closure*, or $120,000.00 whichever is greater, by November 1, 1992.

V. PERMANENT INJUNCTION

Defendants Valley Cores and Valentine are hereby permanently enjoined and ordered to comply with all of the provisions of Chapter 3734 of the Ohio Revised Code and all of the rules promulgated thereunder including, but not limited to, the applicable generator requirements contained in O.A.C. Chapter 3745-52, with respect to any and all future waste handling activities at the Valley Cores Facility. Defendants

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* Percentage of the cost estimate of closure, pursuant to O.A.C. Rule 3745-66-42, for the total cost of closure of the facility, including groundwater monitoring, as calculated based on the closure plan submitted pursuant to Section IV of this Consent Order.

Valley Cores and Valentine are also permanently enjoined and ordered to refrain from engaging in any storage, treatment or disposal of hazardous waste for which a hazardous waste facility installation and operation permit is necessary without first obtaining such a permit from the Hazardous Waste Facility Board.

VI. CIVIL PENALTY

It is hereby ordered that Defendant James Valentine shall pay a civil penalty totalling eight thousand dollars ($8,000.00). One thousand dollars ($1,000.00) of this civil penalty shall be paid within ten (10) days of the entry of this Consent Order. The remaining seven thousand dollars ($7,000.00) shall be paid, in a lump sum, within one (1) year of the entry of this Consent Order. This civil penalty shall be paid by certified check made payable to "Treasurer, State of Ohio," which check shall be delivered by mail, or otherwise, to trial counsel for the State of Ohio (or their successor) at the Ohio Attorney General's Office, Environmental Enforcement Section, 30 East Broad Street, 25th Floor, Columbus, Ohio 43266-0410.

VII. STIPULATED PENALTIES

In the event that Defendants Valley Cores and Valentine violate any of the requirements of Section IV (with the

exception of subpart (b) contained therein), V, and/or VI of this Consent Order, said Defendants shall immediately and automatically be liable for and shall pay stipulated penalties according to the following schedule. For each day of violation or failure to meet a requirement, up to sixty (60) days, the Defendants shall pay a total of five hundred dollars ($500.00) per day for each day of each violation or failure to meet a requirement. For each day of violation or failure to meet a requirement, from sixty-one (61) days to ninety (90) days, the Defendants shall pay a total of one thousand dollars ($1,000.00) per day for each day of each violation or failure to meet a requirement. For each day of violation or failure to meet a requirement, from ninety-one (91) days to one hundred and twenty (120) days, the Defendants shall pay a total of one thousand five hundred dollars ($1,500.00) per day for each day of each violation. For each day of violation or failure to meet a requirement over one hundred and twenty (120) days, the Defendants shall pay a total of three thousand dollars ($3,000.00) per day for each day of each violation or failure to meet a requirement. Any payment required to be made pursuant to this Section of this Consent Order shall be paid by certified check made payable to "Treasurer, State of Ohio," which check shall be delivered by mail, or otherwise, to trial counsel for the State of Ohio (or their successor) at their office at the Ohio Attorney General's Office, Environmental Enforcement Section, 30 East Broad Street, 25th Floor,

Columbus, Ohio 43266-0410 within thirty (30) days of the violation or failure to meet the requirement of this Consent Order.

VIII. POTENTIAL FORCE MAJEURE

In any action by the State of Ohio to enforce any of the provisions of this Consent Order, Defendants may raise at that time the question of whether they are entitled to a defense that their conduct was caused by reasons entirely beyond their control such as, by way of example and not limitation, acts of God, strikes, acts of war or civil disturbances. While the State of Ohio does not agree that such a defense exists, it is, however, hereby agreed upon by Defendants and the State of Ohio that it is premature at this time to raise and adjudicate the existence of such a defense and that the appropriate point at which to adjudicate the existence of such a defense is at the time, if ever, that the proceeding to enforce this Consent Order is commenced by the State. At that time the burden of proving that any delay was or will be caused by circumstances beyond the control of Defendants shall rest with Defendants.

IX. RETENTION OF JURISDICTION

The Court will retain jurisdiction of this action for the purpose of overseeing that Defendants Valley Cores and Valentine carry out the terms and conditions of this Consent Order and comply with O.R.C. Chapter 3734 and the rules adopted thereunder.

X. INSPECTIONS

Pursuant to O.R.C. Section 3734.07, Defendants Valley Cores and Valentine are ordered to do everything within their power and control to allow employees, representatives, and agents of the Ohio EPA, upon proper identification, to enter upon the Valley Cores Facility at reasonable times, to inspect, investigate, take samples and pictures and examine or copy records whenever located in order to determine compliance with the terms of this Consent Order and O.R.C. Chapters 3734 and 6111 the rules promulgated thereunder. Nothing in this Consent Order shall limit the rights of the Ohio EPA or U.S. EPA to conduct regular and routine inspections pursuant to statute or regulation at the Valley Cores Facility.

XI. NOTICE

Any submission to the Ohio EPA as required by this Consent Order, unless otherwise indicated, shall be delivered to:

1. Ohio EPA
   Northeast District Office
   2110 East Aurora Road
   Twinsburg, Ohio 44087
   Attn: Marlene Emanuelson

2. Ohio EPA
   Division of Solid and Hazardous Waste Management
   1800 WaterMark Drive
   P.O. Box 1049
   Columbus, Ohio 43266-0149
   Attn: Pamela S. Allen

3. Office of the Ohio Attorney General
   Environmental Enforcement Section
   30 East Broad Street, 25th Floor
   Columbus, Ohio 43266-0410
   Attn: Bryan F. Zima
   Christopher J. Costantini
   Assistant Attorneys General

XII. EFFECT OF CONSENT ORDER

By consenting to the entry of this Consent Order, Defendants Valley Cores and Valentine are not acknowledging or admitting their liability for the violations as alleged by the State in its Complaint. In addition, by consenting to reference of the Valley Cores site as a "facility", Defendants Valley Cores and Valentine are not acknowledging or admitting that the site is a "facility" as that term is used in O.R.C. 3734.01(N) or O.A.C. 3745-50-10(A)(32).

XIII. COURT COSTS

Defendants Valley Cores and Valentine shall pay the court costs of this action.

Harry E. Klide

HARRY E. KLIDE
JUDGE, COURT OF COMMON PLEAS
STARK COUNTY, OHIO

APPROVED:

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APPENDIX "A"

ERM-Midwest, inc.

TECHNICAL RESPONSE
TO OEPA COMMENTS
VALLEY CORES, INC.
CLOSURE PLAN

Prepared for
Day, Ketterer, Raley, Wright & Rybolt
Canton, Ohio

March 13, 1991

Project 233-05

Prepared by
ERM-Midwest, Inc.
450 West Wilson Bridge Road
Columbus, Ohio 43085

APPENDIX "A"

ERM-Midwest, inc.

TECHNICAL RESPONSE
TO OEPA COMMENTS
VALLEY CORES, INC.
CLOSURE PLAN

Prepared for
Day, Ketterer, Raley, Wright & Rybolt
Canton, Ohio

March 13, 1991

The OEPA comments on the closure plan and responses to those comments we provided are listed below. This technical response represents the first addendum to the closure plan.

1. Comment Section 2.3.1. Valley Cores, Inc. (VCI) shall revise the closure plan to include a detailed drawing of the waste pit. This shall include the dimensions of the pit and a cut-away diagram showing the estimated depth and the layers described as requiring remediation.

1. RESPONSE

A second addendum to the closure plan will include a plan and profile drawing of the waste pit. The drawings will include the dimensions of the pit and estimated depths of the layers described as requiring remediation.

2. Comment Section 2.3.2. VCI shall revise the closure plan to include the proper EPA identification code for the waste materials managed at the unit (.e.g, the code for the waste meeting the toxicity characteristic for lead is D008).

2. RESPONSE

The closure plan is hereby addended to include the EPA identification code for the waste material managed at the unit, specifically, the material comprising layer "B" meets the toxicity characteristic for lead and will be managed as D008.

3. Comment Section 2.3.2. The closure plan makes reference to a document entitled "Final Report of Solid Waste Management Unit Assessment Investigation," dated February 22, 1990. Since the closure plan is to be a "stand alone" document, all pertinent data or conclusions from other documents must be included in the revised closure plan. VCI shall revise the closure plan to include this information as an appendix or attachment.

3. RESPONSE

The second addendum to the closure plan will include the "Final Report of Solid Waste Management Unit Assessment Investigation" as an appendix.

4. Comment Section 3.2.1. VCI has already determined the nature of the contaminated soils in-situ. There is no need to further "characterize" the contaminated soils upon excavation.

4. RESPONSE

VCI will further characterize the soils subsequent to excavation to fulfill the requirements of the licensed TSD facility, for characteristic hazardous waste, or the licensed solid waste facility, for non-hazardous waste. The licensed facilities historically require extensive analytical testing including TCLP characterization.

5. Comment Section 3.2.1.1. VCI shall not "stage" characteristically hazardous wastes in piles. Rather, VCI, must use containers (e.g., roll-off boxes, drums) to stage wastes. Only wastes known to be non-hazardous may be staged in piles.

5. RESPONSE

VCI will stage the estimated 12.3 cubic yards of characteristically hazardous waste, D008 waste, in visqueen lined roll-off boxes.

6. Comment Sections 3.2.1.1 and 3.2.1.2. VCI must determine the full horizontal and vertical extent of contamination from the hazardous waste management unit. VCI shall revise the closure plan to include the methods for handling contaminated soils discovered after confirmation sampling. If it is determined that further excavation or other waste removal and management is impossible, then VCI may submit an amended closure plan to address risk assessment clean closure or landfill closure.

6. RESPONSE

The closure plan is hereby addended to include the following deletions and additions to include the methods for handling contaminated soils discovered after confirmation sampling.

Section 3.2.1.1, paragraph 3, will be changed to read:

> **"Confirmation samples will be collected as described in Section 4.2 and analyzed to determine the need for further excavation. If the confirmation results indicate the need for further excavation, VCI will**

proceed with a second round of excavation following the guidelines below.

The walls of the individual layers, which require further excavation, will be excavated laterally an additional 3 feet. The floor of layer C, if requiring further excavation, will be excavated vertically an additional 1 foot. In the event a "slice" of a lower level requires further excavation, but the layer(s) above have been confirmed clean, the soils from the upper layers will be staged as "clean" soils to be used in the backfill of the pit upon completion of the project.

The soils excavated during "round two" will be staged as characteristically hazardous in visqueen lined roll-off boxes, and as solid waste in visqueen lined and covered piles. The soils will be staged as outlined for the staging of soils during the initial excavation.

The soils will be handled as outlined in Section 3.2.1 for characterization and disposal.

Confirmation samples will be taken from the areas excavated as outlined in section 4.2.

If there is identification of additional contaminated materials after Round 2, VCI will either conduct Round 3 confirmatory sampling or amend the closure plan."

Section 3.2.1.2, paragraph 3, will be changed to read,

"Confirmation samples will be collected as described in Section 4.2 and analyzed to determine the need for further excavation. If the confirmation results indicate the need for further excavation, VCI will proceed with a second round of excavation following the guidelines below.

The walls and floor of the subsections of the swale, which require further excavation, will be excavated laterally and vertically an additional 6 inches.

The soils excavated during "round two" will be staged as solid waste in visqueen lined and covered piles. The soils will be staged as outlined for the staging of soils during the initial excavation.

The soils will be handled as outlined in Section 3.2.1 for characterization and disposal.

Confirmation samples will be taken from the areas excavated as outlined in section 4.2.

If there is identification of additional contaminated materials after Round 2, VCI will either conduct Round 3 confirmatory sampling or amend the closure plan."

7. Comment Section 3.2.2.4. VCI shall specify the method(s) for disposal of rinseates generated from decontamination efforts. The statements in the current closure plan do not specify disposal methods.

7. RESPONSE

The closure plan is hereby addended to address the methods for proper disposal of rinseates generated from decontamination efforts. Upon completion of the excavation and transfer efforts, the rinseate waters will be drummed for temporary storage (less than 90 days).

A composite water sample from the drums will be collected and analyzed for RCRA hazardous characteristics. A composite is warranted, as the waters contained in the drums will be collected from a single source, the decontamination collection sump, and placed in separate drums as the volume of water dictates.

Upon receipt of the analytical results, VCI will determine whether the waters are characteristically hazardous or non-hazardous.

The waters, whether hazardous or non-hazardous, will be transported under manifest to a licensed commercial TSDF for final treatment and disposal.

8. Comment. Section 3.3. OAC 3745-65-91(A)(1) and (2) require that groundwater monitoring systems at regulated facilities have at least one monitoring well installed hydraulically upgradient from the limit of the waste management unit and at least three downgradient at the limit of the waste management unit to immediately detect releases from the waste management unit.

In the closure plan, VCI states that groundwater elevation levels measured from the well network during the first round of sampling indicated that the ground water gradient in the fractured shale aquifer trends eastward, and that currently the configuration of the well locations in relation to the measured gradient indicates that there is one upgradient well (W-2) and one downgradient well (W-4). This configuration of one upgradient well and one downgradient well does not comply with the above cited groundwater regulations. VCI shall revise the closure plan to include plans for two additional hydraulically downgradient of the waste management unit in order to comply with OAC 3745-65-91(A)(1) and (2).

8. RESPONSE.

As discussed in a technical meeting with representatives of OEPA, ERM and Valley Cores, the locations of the wells were chosen assuming that the groundwater gradient mimicked topography (suspected regional groundwater flow trending southwestward, toward Nimishillen Creek). As discussed in ERM's "Report of Solid Waste Management Unit, Assessment Investigation, Valley Cores, Inc. - Canton, Ohio" (dated February 22, 1990), the close proximity of the three downgradient wells to the inactive disposal pit should permit adequate monitoring of any potential contaminants that may leach from the pit.

The three "downgradient" wells are each located within 10 feet of the limits of the disposal pit. During the active life of the disposal pit, it is likely that the pit itself would have acted as a groundwater recharge point causing a localized radial flow emanating from the pit. Even at the present time, since the pit was backfilled after initial excavation, the more porous backfill would serve as a recharge point, likely causing radial flow from the disposal pit. If this is the case, then the locations of the each of the three "downgradient" wells may truly monitor the "downgradient" conditions. The upgradient well (W-1) is located a sufficient distance from the disposal pit to act as a "background" well.

9. Comment. Section 3.3. VCI shall measure the depth to the water table to the nearest 0.01 foot. To accomplish this accurately, VCI shall use the appropriate tools (e.g. electrical tape) incremented at 0.01 foot. The current plan indicates the use of a tape incremented at 0.5 foot.

9. RESPONSE

The Sampling and Analysis Plan, provided as Appendix A in the Closure Plan, states, "The depth to groundwater is measured to within 0.01 foot with an electric tape which is permanently incremented at 0.01 foot or 0.50 foot intervals." The typographical error in the Closure Plan is hereby addended such that the statement reads, " . . . incremented at 0.01 foot or 0.05 foot intervals."

10. Comment. Section 3.3. VCI has not indicated how the purge water from the groundwater monitoring wells will be managed. The water obtained from purging of any monitoring well shall be containerized until analysis of the groundwater from the well has been completed by the laboratory. At that time, the purge water shall be disposed properly depending on the results of these analyses. Additionally, VCI shall not discard the first bailer full of groundwater but shall containerize such water until the analysis of the water is complete and appropriate disposal is arranged.

10. RESPONSE.

The closure plan is hereby addended to address the proper containerization of purge water from the groundwater monitoring network. Upon sampling, all purge water (including the first bailer collected during sampling) will be containerized. The contained purge water will be disposed once the analytical results are received and the appropriate disposal method is determined.

11. Comment. Section 3.3. VCI has indicated that method 8010/8020 be used for the analysis of volatile organic compounds (VOC's). VCI shall revise this to use method 8240 as this method has lower analytical detection limits for the various organics.

11. RESPONSE.

Analytical compounds chosen in the Closure Plan were those analyzed in the site assessment. VOCs analyzed during the site assessment used SW-846 Methods 8010/8020. Method detection limits for 8010/8020 range from 0.2 to 0.52 ppb and the Practical Quantitation Limits (PQLs) specified for groundwater range from 2 to 5.2 ppb. Conversely, the PQLs specified under method 8240 range from 5 to 100 ppb.

For consistency and to ensure a lower detection limit, VCI will continue to designate the VOCs analysis as Method 8010/8020.

12. Comment. VCI shall monitor groundwater quarterly according to the groundwater monitoring regulations (OAC 3745-65-90 through 3745-65-94) after installing an acceptable groundwater monitoring system (see previous comments). Additional semi-annual groundwater monitoring (3 years minimum) will also be required following closure, to confirm that groundwater contamination has not occurred.

12. RESPONSE.

VCI intends to comply with the groundwater regulations OAC 3745-65-90 through 3745-65-94 as they apply to the VCI inactive disposal pit closure plan (dated October 25, 1990 and as modified herein).

Sampling and analysis of the groundwater will follow the Sampling and Analysis Plan provided as Appendix A to the closure plan and modified commensurate to the comments provided herein (RESPONSES 9, 10 and 11), in accordance with OAC 3745-65-92(A).

The list of analytical constituents will be that listed in the Sampling and Analysis Plan. This list was approved by OEPA prior to the conduct of the Site Assessment. The list

includes those constituents expected to be present at the site based on knowledge of the processes and operations conducted by Valley Cores at the property from March through October 1986. This list of constituents effectively replaces those generic parameters specified in OAC 3745-65-92(B).

Post-closure monitoring will be initiated within three months of excavation and removal of the former disposal pit contents. If necessary, post-closure monitoring will continue on a semi-annual basis until the groundwater is deemed not impacted by the inactive and closed disposal pit. Upon receipt of analyses indicating that the closed unit has not impacted the groundwater, the disposal pit shall be determined to be closed. Groundwater elevations will be determined for each sampling event.

Based on the analytical results collected during the site assessment, it appears that the groundwater has not been impacted by the disposal pit. If, during the closure and post-closure sampling (outlined above), groundwater contamination is found, a groundwater quality assessment plan will be developed in accordance with OAC 3745-65-93.

All applicable groundwater monitoring records will be maintained and reported in accordance with OAC 3745-65-94.

13. Comment Section 3.4. VCI shall revise the closure plan to include further details regarding health and safety procedures. VCI shall provide contingency plans for emergency situations including information for local emergency services (police, fire, ambulance, and hospital). Additionally, VCI shall specify the types of personal protective equipment to be used for personnel performing closure.

13. RESPONSE

Persons handling hazardous waste must be trained and certified in accordance with OSHA 1910.120. The standard requires site-specific health and safety plans be prepared to ensure worker protection. Nevertheless, VCI will prepare a site-specific health and safety plan to be included in the second addendum to the closure plan. The plan will include detailed health and safety procedures including, but not limited to, contingency plans for emergency situations, listed emergency service telephone numbers, and protective equipment specified for personnel performing closure.

14. Comment Sections 4.1, 4.4. VCI shall revise the closure plan to include appropriate certification information. The owner/operator's and qualified, independent, registered professional engineer's certifications of closure shall follow the signature requirements outlined in OAC

3745-50-42. The owner/operator certification statement shall follow the exact wording found in OAC 3745-50-42(D).

14. RESPONSE

The closure plan is hereby addended to include the appropriate certification information. Specifically, the owner/operator's and qualified, independent, registered professional engineer's certifications of closure shall follow the signature requirements outlined in OAC 3745-50-42 and, the owner/operator certification statement shall follow the exact wording found in OAC 3745-50-42(D) as written below:

> "I certify under penalty of law that this document and all attachments were prepared under my direct supervision in accordance with 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."

15. Comment Section 4.2.1.1. VCI need not resample the waste following excavation. The initial in-situ soil sampling in the pit and swale is sufficient to serve to characterize the soils for disposal purposes.

15. RESPONSE

Refer to RESPONSE 4.

16. Comment Section 4.2.2. VCI shall revise the closure plan to delete composite sampling unless compositing is limited to areas within the individual grid locations. Compositing samples between different grids in the pit (Section 4.2.2.1) or swale (Section 4.2.2) is forbidden.

16. RESPONSE

The closure plan is hereby addended to include the following corrections:

Section 4.2.2.1, paragraph 2:

> "A composite sample will be collected from the staged material for use in determining proper waste disposal alternatives for the excavated soils."

Section 4.2.2.2, paragraph 1, sentence 1:

> "A composite confirmation sample will be collected from the floor and side walls of the excavated trench at <u>each individual</u> location shown on Figure 3."

The remainder of the paragraph will remain as written.

17. Comment Section 4.2.4. VCI shall provide the data used to calculate the background concentrations of metals in the site soils.

17. RESPONSE

The analytical data used to calculate site-specific background concentrations with the exception of cadmium and lead for the site can be found in the "Final Report of Solid Waste Management Unit Assessment Investigation" which will be appended to the closure report commensurate to the modification proposed in RESPONSE 3.

18. COMMENT:

Section 4.2.4. There are two additional items which VCI shall address regarding the clean standards proposed in this section as follows:

a. For cadmium, VCI shall compare soil types on-site with those found in the Ohio Farm Soils study. Soils on-site must be similar to those studied in the Ohio Farm Soils research to qualify for the use of this standard. VCI shall examine soil color, texture, conductivity, and pH to make the comparison. If on-site soils are not similar to the Ohio Farm Soils study, then VCI shall collect on-site background samples for cadmium.

b. The lead risk assessment standard of 150 mg/kg is only applicable with the following criteria applied. First, the lead concentration in the soil must not exhibit a hazardous characteristic via the TCLP test. If hazardous waste is discovered, then it must be managed according to the appropriate RCRA standards. Second, in order to demonstrate that soils are clean, the leachability of the lead in the soils must be below the maximum contaminant level (MCL) as found in OAC 3745-81-11. This may mean removal of additional lead below the 150 mg/kg maximum in order to obtain this low-level leachability. Soils showing leachable concentrations of lead above the MCL but below the hazardous waste criterion of 5 mg/l shall be managed as solid waste.

c. Third, VCI must determine the natural background concentration for lead on-site. VCI shall use the lowest concentration, either background or 150 mg/kg (with the restrictions above) as the clean standard.

18. RESPONSE:

a. OEPA closure plan review guidance indicates that the "Ohio Farm Soils" circular by Logan and Miller is an appropriate guide for established inorganic background levels. Moreover, OEPA has adopted the Ohio Farm Soils study as a guide, presenting a valid standard for cleanup at other sites. VCI believes 2.9 mg/kg to be a sufficiently stringent closure performance standard for cadmium.

VCI believes the use of the "Ohio Farm Soils" background for cadmium is justified given that it occurs naturally at this concentration throughout Ohio, and is therefore protective of human health and the environment.

b. VCI concurs with the OEPA that any soil with a total lead concentration of 150 mg/kg or greater that fails the Toxicity Characteristic for Lead (TCLP) shall be classified and managed as RCRA hazardous.

For the following reasons, VCI does not concur with OEPA's assertion that soils which exhibit a leachate concentration equal to or greater than the MCL for lead, but less than the leachability criteria, shall be classified as solid waste:

1. The TCLP and EP Toxicity tests are not appropriate models for leaching action of this sort. The implications are that the leachability tests may not be used for purposes other than for those specifically intended.

2. The U.S. EPA memo from Sylvia Lowrance to David A. Ullrich dated May 7, 1990 (Attached) which established U.S. EPA policy for lead background, does not require such a condition (comparison of leachate w/MCL) as a criteria for establishing site background for lead.

c. As part of our closure plan dated October 25, 1990, VCI proposed a health-based closure performance standard for total lead in accordance with 40 CFR 265.228 , and based on exemplified guidance in

52FR 8704. Due to the fact that no final toxicological data exists for lead, VCI deferred to agency policy for a clean-up level.

Although the Centers for Disease Control have established interim soil clean-up levels for total lead at 500-1,000 ppm (see OSWER Directive #9355.4-02 attached), VCI conservatively selected a health-based closure performance standard for lead of 150 ppm, based on recent U.S. EPA policy memos. Please refer to the attached inquiry regarding health-based clean-up levels for lead from David A. Ullrich to Sylvia K. Lowrance dated February 15, 1990 and Sylvia K. Lowrance's response letter to David A. Ullrich dated May 7, 1990.

As described in Ms. Lowrance's letter, the use of a health-based lead clean-up level of 100-1000 ppm is appropriate. Ms. Lowrance goes on to say that a site-specific background concentration for lead is most appropriate for areas with site-wide elevated lead concentrations which were caused by external activities, industrial or otherwise.

Accordingly, 1000 ppm could be an appropriate cleanup standard as determined by the U.S. EPA that meets the Closure Performance Standard specified in OAC 3745-66-11. VCI therefore believes that the use of 150 ppm for lead background level will be protective of human health and the environment.

19. Comment Section 6.0. VCI shall revise the closure cost estimate to include added costs which will be incurred due to the above comments.

19. RESPONSE

VCI will update the cost estimate for the additional cost incurred as a direct result of the above comments. The revised cost estimate will be estimated following discussion and resolution of the remediation methodologies outlined in the above comments. The engineering cost estimate will be included in the second addendum to the closure plan.

ATTACHMENTS

Central PSPD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: FEB 15 1990

SUBJECT: OSWER Directive #9355.4-02 (Soil Lead Cleanup Levels) and its Effect on RCRA Closures.

FROM: David A. Ullrich, Acting Director (SHR-13)
Waste Management Division

TO: Sylvia K. Lowrance, Director (OS-300)
Office of Solid Waste

The purpose of this memorandum is to request your interpretation as to whether a recent OSWER Superfund directive has any effect on RCRA closures. The directive (#9355.4-02) sets forth interim soil cleanup levels for lead at Superfund sites. Recently, the State of Ohio has informed us that an Ohio consulting firm, ERM-Midwest, is attempting to use this guidance to establish clean closure levels for lead at RCRA facilities. The Ohio EPA has asked for the U.S. EPA's assistance in responding to ERM-Midwest on this issue.

The Ohio EPA became authorized to approve closure plans in June 1989. Prior to that time, Region V approved closure plans for Ohio facilities. It has been Region V's position that, in general, Superfund guidance is not applicable to RCRA closures because of differences in the Superfund and RCRA statutes (such as for cost-effectiveness requirements). However, to assist the State of Ohio, an interpretation from Headquarters would be helpful on the particular directive referred to in this memorandum.

We are aware that the Office of General Counsel is preparing a response to this issue, based on procedural grounds only, for the legal action against the Agency involving Bunker Corporation in Zanesville, Ohio. However, we believe a policy interpretation is necessary at this time on this issue, removed from the specifics of the Bunker Case. We are concerned that this issue will continue to arise at RCRA facilities that may employ ERM-Midwest as a consultant.

We would appreciate a response as soon as possible, as Ohio is in the process of dealing with at least two facilities on these issues. If you need any additional information to complete your report, please contact Francine Horning of my staff, at FTS 886-6198.

Attachments

cc: Ed Kitchen, OEPA

OSW-093
Due: 3/12/90

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: FEB 15 1990

SUBJECT: OSWER Directive #9355.4-02 (Soil lead cleanup levels) and its effect on RCRA Closures.

FROM: David A. Ullrich, Acting Director (5HR-13)
Waste Management Division

TO: Sylvia K. Lowrance, Director (OS-300)
Office of Solid Waste

The purpose of this memorandum is to request your interpretation as to whether a recent OSWER Superfund directive has any effect on RCRA closures. The directive (#9355.4-02) sets forth interim soil cleanup levels for lead at Superfund sites. Recently, the State of Ohio has informed us that an Ohio consulting firm, ERM-Midwest, is attempting to use this guidance to establish clean closure levels for lead at RCRA facilities. The Ohio EPA has asked for the U.S. EPA's assistance in responding to ERM-Midwest on this issue.

The Ohio EPA became authorized to approve closure plans in June 1989. Prior to that time, Region V approved closure plans for Ohio facilities. It has been Region V's position that, in general, Superfund guidance is not applicable to RCRA closures because of differences in the Superfund and RCRA statutes (such as for cost-effectiveness requirements). However, to assist the State of Ohio, an interpretation form Headquarters would be helpful on the particular directive referred to in this memorandum.

We are aware that the Office of General Counsel is preparing a response to this issue, based on procedural grounds only, for the legal action against the Agency involving Burnham Corporation in Zanesville, Ohio. However, we believe a policy interpretation is necessary at this time on this issue, removed from the specifics of the Burnham case. We are concerned that this issue will continue to arise at RCRA facilities that may employ ERM-Midwest as a consultant.

We would appreciate a response as soon as possible, as Ohio is in the process of dealing with at least two facilities on these issues. If you need any additional information to complete your report, please contact Francine N_____??? of my staff, at FTS 886-6198.

Attachments

cc: Ed Kitchen, OEPA

Note: Text of memorandum is retyped verbatim for legibility.

OSW.C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 7 ...

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Interim Guidance on Establishing Soil Lead Cleanup Levels at RCRA Facilities

FROM: Sylvia K. Lowrance, Director
Office of Solid Waste

TO: David A. Ullrich, Acting Director
Waste Management Division, Region V (5HR - 13)

This is in response to your memorandum of February 15, 1990 requesting interpretation as to whether a recent OSWER Superfund directive (#9355.4-02), which sets forth interim soil cleanup levels for lead at Superfund sites, also applies to RCRA closures and corrective actions. In addition, this memorandum will supplant the memorandum from Sylvia Lowrance to William Muno dated May 27, 1988, interpreting the use of soil background levels for lead as clean closure standards.

As you know, establishing a health-based "cleanup" level for lead in soil has been a major issue for the Agency for some time. Presently, there is an interoffice project underway to develop site-specific soil lead cleanup levels based on a biokinetic uptake model, as referenced in the above guidance memorandum. We anticipate that this model will be finalized within the next several months; however, we recognize the importance of addressing this issue at this time and so are offering this interim guidance.

We understand that during this interim period, Region 5 and other Regions and States will need to make decisions as to the appropriate levels for lead in soil in the context of RCRA closures and corrective actions. It is our understanding, based on some preliminary runs of the new model, that the soil lead cleanup levels could be as low as 100 - 150 ppm at some facilities. These levels would reflect a set of default values, based on conservative assumptions regarding exposure and other factors. Thus, there may be a number of situations where it would be appropriate to use other assumptions in setting cleanup levels for specific facilities. For more information on the model being developed, and how site-specific factors may be used to calculate levels appropriate to a specific site, you may wish

to contact Susan Griffin of the Health Assessment Section (FTS-382-6392).

Until the model is finalized, we believe that it may be appropriate under some exposure conditions, to establish soil lead cleanup levels based on the CDC-derived numbers, presented in OSWER directive 9355.4-02, rather than the 100 - 150 ppm range provided above. Alternatively, background levels may also be an appropriate choice for cleanup levels. Background levels could be used, for example, in urban settings or industrial areas, where they sometimes exceed levels derived from health-based models.

If you have any further questions, please contact Dave Fagan (FTS-382-4497) or Lisa Askari (FTS-382-4535).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OSWER Directive #9355.4-02

MEMORANDUM

SUBJECT: Interim Guidance on Establishing Soil Lead Cleanup Levels at Superfund Sites.

FROM: Henry L. Longest II, Director
Office of Emergency and Remedial Response

Bruce Diamond, Director
Office of Waste Programs Enforcement

TO: Directors, Waste Management Division, Regions I, II, IV, V, VII and VIII
Director, Emergency and Remedial Response Division, Region II
Directors, Hazardous Waste Management Division, Regions III and VI
Director, Toxic Waste Management Division, Region IX
Director, Hazardous Waste Division, Region X

PURPOSE

The purpose of this directive is to set forth an interim soil cleanup level for total lead, at 500 to 1000 ppm, which the Office of Emergency and Remedial Response and the Office of Waste Programs Enforcement consider protective for direct contact at residential settings. This range is to be used at both Fund-lead and Enforcement-lead CERCLA sites. Further guidance will be developed after the Agency has developed a verified Cancer Potency Factor and/or a Reference Dose for lead.

BACKGROUND

Lead is commonly found at hazardous waste sites and is a contaminant of concern at approximately one-third of the sites on the National Priorities List (NPL). Applicable or relevant and appropriate requirements (ARARs) are available to provide cleanup levels for lead in air and water but not in soil. The current

National Ambient Air Quality Standard for lead is 1.5 ug/m^3. While the existing Maximum Contaminant Level (MCL) for lead is 50 ppb, the Agency has proposed lowering the MCL for lead to 10 ppb at the tap and to 5 ppb at the treatment plant[1]. A Maximum Contaminant Level Goal (MCLG) for lead of zero was proposed in 1988[2]. At the present time, there are no Agency-verified toxicological values (Reference Dose and Cancer Potency Factor, ie., slope factor), that can be used to perform a risk assessment and to develop protective soil cleanup levels for lead.

Efforts are underway by the Agency to develop a Cancer Potency Factor (CPF) and Reference Dose (RfD), (or similar approach), for lead. Recently, the Science Advisory Board strongly suggested that the Human Health Assessment Group (HHAG) of the Office of Research and Development (ORD) develop a CPF for lead, which was designated by the Agency as a B2 carcinogen in 1988. The HHAG is in the process of selecting studies to derive such a level. The level and documentation package will then be sent to the Agency's Carcinogen Risk Assessment Verification Exercise (CRAVE) workgroup for verification. It is expected that the documentation package will be sent to CRAVE by the end of 1989. The Office of Emergency and Remedial Response, the Office of Waste Programs Enforcement and other Agency programs are working with ORD in conjunction with the Office of Air Quality Planning and Standards (OAQPS) to develop an RfD, (or similar approach), for lead. The Office of Research and Development and OAQPS will develop a level to protect the most sensitive populations, namely young children and pregnant women, and submit a documentation package to the Reference Dose workgroup for verification. It is anticipated that the documentation package will be available for review by the fall of 1989.

IMPLEMENTATION

The following guidance is to be implemented for remedial actions until further guidance can be developed based on an Agency verified Cancer Potency Factor and/or Reference Dose for lead.

Guidance

This guidance adopts the recommendation contained in the 1985 Centers for Disease Control (CDC) statement on childhood lead poisoning[3] and is to be followed when the current or predicted land use is residential. The CDC recommendation states that "...lead in soil and dust appears to be responsible for blood levels in children increasing above background levels when the concentration in the soil or dust exceeds 500 to 1000 ppm". Site-specific conditions may warrant the use of soil cleanup levels below the 500 ppm level or somewhat above the 1000 ppm level. The administrative record should include background documents on the toxicology of lead and information related to site-specific conditions.

The range of 500 to 1000 ppm refers to levels for total lead, as measured by protocols developed by the Superfund Contract Laboratory Program. Issues have been raised concerning the role that the bioavailability of lead in various chemical forms and particle sizes should play in assessing the health risks posed by exposure to lead in soil. At this time, the Agency has not developed a position regarding the bioavailability issue and believes that additional information is needed to develop a position. This guidance may be revised as additional information becomes available regarding the bioavailability of lead in soil.

Blood-lead testing should not be used as the sole criterion for evaluating the need for long-term remedial action at sites that do not already have an extensive, long-term blood-lead data base[1].

EFFECTIVE DATE OF THIS GUIDANCE

This interim guidance shall take effect immediately. The guidance does not require that cleanup levels already entered into Records of Decisions, prior to this date, be revised to conform with this guidance.

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1 In one case, a biokinetic uptake model developed by the Office of Air Quality Planning and Standards was used for a site-specific risk assessment. This approach was reviewed and approved by Headquarters for use at the site, based on the adequacy of data (due to continuing CDC studies conducted over many years). These data included all children's blood-lead levels collected over a period of several years, as well as family socio-economic status, dietary conditions, conditions of homes and extensive environmental lead data, also collected over several years. This amount of data allowed the Agency to use the model without a need for extensive default values. Use of the model thus allowed a more precise calculation of the level of cleanup needed to reduce risk to children based on the amount of contamination from all other sources, and the effect of contamination levels on blood-lead levels of children.

REFERENCES

1. 53 FR 31516, August 18, 1988.
2. 53 FR 31521, August 18, 1988.
3. Preventing Lead Poisoning in Young Children, January 1985, U.S. Department of Health and Human Services, Centers for Disease Control, 99-2230.

APPENDIX "B"

Responses to comments #1, 2, 3, 5, 7, 9, 10, 13, 14, 15, 16, 17 and 19: No changes.

Response to comment #4: The existing wording may remain; however, Valley Cores Inc. and Jim Valentine (VCI) shall clarify that the further characterization subsequent to excavation is only to fulfill waste acceptance criteria requirements of the facilities which receive the waste and that any such characterization is not intended to re-evaluate hazardous wastes to be non-hazardous wastes.

Response to comment #6: VCI shall add:

> "The closure plan is hereby addended as follows: excavated soils shall be managed in compliance with all applicable generator requirements, including, but not limited to, the accumulation time periods (i.e., less than ninety (90) days for large quantity generators)."

Response to comment #8: VCI shall delete the entire response and replace it with revisions to the closure plan which include detailed plans (e.g., well design and construction materials and methods) for two additional ground water monitoring wells to be installed hydraulically downgradient from the hazardous waste disposal unit in an attempt to comply with OAC Rule 3745-65-91(A)(1) and (2). VCI shall include a schedule for installation, development, initial sampling, measuring of water elevations and evaluation of the data on ground water surface elevations to determine whether the requirements under paragraph (A) of OAC Rule 3745-65-91 is satisfied.

Response to comment #11: VCI shall delete the entire response and replace it with the following:

> "VCI will use Method 8240 for the analysis of volatile organic compounds. VCI will use the constituent list associated with Method 8010/8020 for the Method 8240 analysis."

Response to comment #12: No changes are required for Paragraphs 2 (Sampling and analysis...), 3 (The list of analytical...) and 6 (All applicable...).

VCI shall delete Paragraph 1 (VCI intends...) and replace it with the following:

> "VCI shall monitor ground water in accordance with OAC Rules 3745-65-90 through 3745-65-94. At a minimum, VCI shall conduct four (4) quarters of quarterly sampling followed by two (2) years of semi-annual sampling to determine if the unit has had an impact on the quality of ground water underlying the facility. The two (2) year period of semi-annual sampling must follow either the completion of closure or the completion of the four (4) quarters of quarterly sampling, whichever comes later (i.e., a minimum of four (4) quarters of quarterly sampling to establish background values and a minimum of two (2) years of post-closure ground water monitoring must be completed)."

VCI shall delete Paragraphs 4 (Post-closure...) and 5 (Based on the analytical...) and shall replace them with the following:

> "VCI shall comply with OAC Rule 3745-65-93 during the closure and post-closure ground water monitoring periods, except that paragraph (B) of OAC Rule 3745-65-93 shall be modified to allow any appropriate statistical method specified in 'U.S. EPA Guidance Document on the Statistical Analysis of Ground Water Monitoring Data at RCRA Facilities' which includes an upgradient-to-downgradient comparison and an assumption that the data is normally distributed and paragraph (B) of said rule shall also be modified to require this statistical analysis to be conducted on each of the site-specific parameters referenced in the response to Comment #12."

Response to comment #18: VCI shall delete the entire response and replace it with the following:

> "Regarding the clean standards proposed in Section 4.2.4, the following standards are appropriate. For the cadmium background standard, 2.9 mg/kg is appropriate. For the lead risk assessment standard, 150 mg/kg is appropriate."

VCI shall delete all attachments.