



BEFORE THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III

IN THE MATTER OF:

Sauer Dump Site Located adjacent to/behind 4225 Lynhurst Road, Dundalk, Baltimore County, Maryland, 21222 39° 27' 22" North latitude, 76° 45' 25" West longitude

I hereby certify that the within is a true and correct copy of the original ADMINISTRATIVE ORDER filed in this matter.

[Signature] Attorney for EPA

Docket No. CERC-63-2006-0030DC

Respondents

Smurfit- Stone Container Corporation American Premier Underwriters, Inc. Wittstadt Hunting Club, Inc.

Proceeding Under Section 106(a) Of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. § 9606(a)

ADMINISTRATIVE ORDER FOR REMOVAL RESPONSE ACTION

Having determined the necessity for implementation of response activities at or relating to the Sauer Dump Site (Site) located adjacent to/behind 4225 Lynhurst Road, Dundalk, Baltimore County, Maryland, 21222, as presented on Attachment A, the United States Environmental Protection Agency ("EPA"), hereby Orders as follows:

I. JURISDICTION AND GENERAL PROVISIONS

- 1.1 This Order is issued pursuant to the authority vested in the President of the United States by Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, ("CERCLA"), 42 U.S.C. § 9606; delegated to the EPA Administrator by Executive Order No. 12,580, 52 Fed. Reg. 2923 (January 29, 1987); and further delegated to the Director of the Hazardous Site Cleanup Division, EPA Region III. This Order pertains to property located adjacent to/behind 4225 Lynhurst Road, Dundalk, Baltimore County, Maryland, further described in Attachment A. The property will hereinafter be referred to as the Sauer Dump Site or "the Site", and is further described in Section III below.
- 1.2 The Respondents shall undertake all actions required by, and comply with all requirements of this Order including any modifications hereto ("the Work").
- 1.3 The Work shall be consistent with the National Oil and Hazardous Substances Pollution Contingency Plan, as amended ("NCP"), 40 C.F.R. Part 300; and CERCLA.
- 1.4 This Order is issued to the above captioned Respondents ("Respondents").

II. STATEMENT OF PURPOSE

- 2.1 In issuing this Order, the objective of EPA is to protect the public health and welfare and the environment by ensuring that a proper removal response action, as defined in Section 101(23) of CERCLA, 42 U.S.C. § 9601(23), is conducted to abate, mitigate and/or eliminate the release or threat of release of hazardous substances at the Site (as hereinafter described). As set forth specifically in Section VIII of this Order, the purpose of this removal response action is to contain and prevent the migration of hazardous substances from the Site.

III. FINDINGS OF FACT

- 3.1 The Site is a partially wooded lot, including wetlands and shore and is located in a residential neighborhood and partially bordered by wetlands and the Back River. It is composed of several properties including all of parcel 425, and parts of parcels 574, 503, 464, 295 and 137, as approximately depicted in Attachment A of this Order.
- 3.2 The Site was landfilled by the owner of an adjacent property, Mr. Frederick (Fritz) Sauer (deceased 1990), in the 1960's and 1970's. Fritz Sauer used the Site as a salvage/dump yard in the 1960's, 1970's, and 1980's. The Site's historical usage as a salvage/dump/landfill operation resulted in the improper storage and disposal of hazardous substances and the consequent release of these hazardous substances into the environment.
- 3.3 Prior to the enactment of the Toxic Substances Control Act of 1976 (TSCA) regulations limiting Polychlorinated Biphenyls (PCBs) production and use, PCBs were commonly used in a variety of commercial products, including but not limited to the following; adhesives,

transformers, hydraulic systems, heat-transfer systems, fluorescent light ballasts and switches and electronic equipment.

- 3.4 **Smurfit-Stone Container Corporation**, a corporation organized in the State of Delaware on August 4, 1989, is a successor-in-interest to Jefferson Smurfit Corporation which had previously been merged with Stone Container Corporation on or about November 18, 1998. Jefferson Smurfit Corporation had previously merged with Container Corporation of America ("CCA") on or about December 31, 1994. Smurfit-Stone Container Corporation is liable under Section 107(a) (3) of CERCLA as an arranger, who by contract or agreement, arranged for the disposal, treatment or transportation of hazardous substances at or to the Site.
- 3.5 **Fritz Sauer** had the waste disposal contract with CCA from 1960 through February 1990.
- 3.6 **According to witness interviews and other documentary evidence**, CCA's plant trash was disposed of at the Site. The plant trash consisted of scrap metal and crushed, emptied containers such as plastic containers, steel drums, fiber drums, and metal containers. The crushed, emptied containers contained residue of the material that they originally held. These residues include waste oil, sodium hydroxide, ink/ink reducer, adhesives and degreasers. Adhesives often used PCBs in their formulation. Ink and ink reducers included substances such as acetone, ethyl benzene and methyl ethyl ketone. These materials/wastes are designated as CERCLA hazardous substances pursuant to 40 C.F.R. § 302.4 and are therefore "hazardous substances" for the purposes of Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).
- 3.7 **American Premier Underwriters, Inc. ("APU")**, formerly known as The Penn Central Corporation, is a corporation organized in the Commonwealth of Pennsylvania. The Penn Central Corporation was incorporated on or about April 13, 1846. The Penn Central Corporation changed its name to APU on or about March 25, 1994. The Penn Central Corporation is a successor-in-interest to Manor Real Estate Company through a merger on or about May 16, 1979. The Penn Central Corporation and Manor Real Estate Company were previous owners of Parcel 425, which was then part of Parcel 574, Tax Map 104, Grid 10 in Baltimore County, Maryland, at the time of disposal of hazardous substances on the subject parcel. Manor Real Estate and Trust Company purchased the subject parcel in 1947, and then changed its name to Manor Real Estate Company on or about December 17, 1954. In 1983, the subject parcel was sold by the Penn Central Corporation to Beachwood Development Corporation. Therefore, APU is liable under 107(a) (2) of CERCLA with respect to the Sauer Dump Site, as a previous owner at time of disposal of Parcel 425.
- 3.8 **Wittstadt Hunting Club, Inc.**, is a corporation organized in the state of Maryland. It was incorporated on October 11, 1996. It is liable under Section 107(a) (1) of CERCLA with respect to the Sauer Dump Site, as the current owner of Parcel 425 of the Site, Tax Map 104, Grid 10 in Baltimore County, Maryland. Wittstadt Hunting Club, Inc. acquired title to the subject parcel from Eldorado Enterprises, Inc. through a deed recorded in Baltimore County Maryland on January 16, 1997, at deed book 11992, page 274.
- 3.9 **EPA and Maryland Department of the Environment (MDE)** conducted assessments at the Site between the years 1985 to 2005 and found that, inter alia, concentrations of semi-

- volatile organic compounds (SVOCs), metals, PCBs and pesticides in soil and sediment exceed various risk-based screening levels. Contamination at the Site is present in the soils, groundwater, surface-water and sediments in the wetlands and adjacent shoreline areas. PCBs are present in the soil at concentrations as high as 33,000 parts per million (ppm (mg/kg)), while lead has been observed at concentrations up to 27,000 ppm. Surface water on the Site and adjacent wetland indicates concentrations of PCB congeners as high as 3.4 micrograms per liter (ug/l).
- 3.10 The Site was evaluated by the Agency for Toxic Substances and Disease Registry (ATSDR) in December of 2002; their report is attached hereto as Attachment B. ATSDR concluded, in relevant part, that:
- a) "Contaminants, i.e., lead and PCBs detected in surface soil samples at this site pose a public health hazard for a residential setting;"
 - b) "PCBs detected in sub-surface soil samples at this site may pose a public health hazard if gardening, or construction activities involving digging or trenching bring contaminated soil to the surface."
- 3.11 There exists an immediate risk to both public health including neighborhood children and the environment present at the Sauer Dump Site. Disruption and erosion has exposed soil that is highly contaminated with lead and PCBs.
- 3.12 Based on the information described above, on or about September 27, 2005, the Director of the EPA Region III Hazardous Site Cleanup Division determined that a threat to public health, welfare and/or the environment exists due to the actual release of hazardous substances from the Site, and authorized funds for a removal action.

IV. CONCLUSIONS OF LAW

- 4.1 The Sauer Dump Site is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).
- 4.2 Respondents are "persons" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).
- 4.3 PCBs, lead, acetone, ethyl benzene, methyl ethyl ketone and RCRA characteristic hazardous wastes D001, D002, and D003 are "hazardous substances" within the meaning of Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), because they are listed at 40 C.F.R. §§ 302.4(a) and/or 302.4 (b).
- 4.4 "Hazardous substances", as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), have been disposed of at the Sauer Dump Site and are currently present there.
- 4.5 The presence of hazardous substances at the Site and the past, present, and/or potential migration of hazardous substances from the Site constitutes an actual and/or threatened "release" as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

- 4.6 (a) Respondent Wittstadt Hunting Club, Inc. is an "owner or operator of a vessel or a facility" (the Site) within the meaning of Section 107(a) (1) of CERCLA, 42 U.S.C. § 9607(a) (1).
- (b) Respondent American Premier Underwriters, Inc. is a "persons who at the time of disposal of any hazardous substances owned or operated any facility (the Site) at which such hazardous substance were disposed of" within the meaning of Section 107(a) (2) of CERCLA, 42 U.S.C. § 9607(a) (2).
- (c) Respondents Smurfit-Stone Container Corporation is a "person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, any facility or incineration vessel [the Site] owned or operated by another party or entity and containing such hazardous substances" within the meaning of Section 107(a)(3) of CERCLA, 42 U.S.C. § 9607(a)(3).
- 4.7 EPA has determined that Respondents are liable under Section 107(a) of CERCLA, 42 U.S.C. § 9607, and are therefore jointly and severally liable for carrying out the provisions of this Order.

V. DETERMINATIONS

Based on the Findings of Fact and Conclusions of Law set forth above, and the Administrative Record supporting this Order, EPA has determined that:

- 5.1 The actual and/or threatened release of hazardous substances from the Site may present an imminent and substantial endangerment to the public health or welfare or the environment.
- 5.2 The Work is necessary to protect the public health and welfare and the environment.
- 5.3 Because there is a threat to public health or welfare or the environment, a removal action is appropriate to abate, minimize, stabilize, mitigate or eliminate the release or threat of release of hazardous substances at or from the Site.

VI. PARTIES BOUND

- 6.1 This Order shall apply to and be binding upon Respondents and their agents, successors, and assigns. Neither a change in ownership or corporate or partnership status of Respondents, nor a change in ownership or control of the Site, shall in any way alter Respondents' responsibilities under this Order.

- 6.2 No change in ownership of any property covered by this Order shall in any way alter, diminish, or otherwise affect any of Respondents' obligations and responsibilities under this Order.
- 6.3 In the event of any change in ownership or control of the Site, Respondents shall notify EPA in writing at least thirty (30) calendar days in advance of such change and shall provide a copy of this Order to the transferee in interest of the Site prior to any agreement for transfer
- 6.4 In the event that any Respondent files for or is placed into bankruptcy, that Respondent shall notify EPA within three (3) days of such event.
- 6.5 Respondents shall provide a copy of this Order to all contractors, subcontractors, supervisory personnel, laboratories and consultants retained by Respondents to conduct any portion of the Work to be performed by Respondents pursuant to this Order. Respondent shall require in any and all contracts related to this Site that the Work that is the subject of such contract be performed within the time and in the manner set forth in this Order.
- 6.6 Respondents are jointly and severally liable for compliance with the provisions of this Order. All references to "Respondents" herein shall mean each and every Respondent, both collectively and individually. The failure by one or more of the Respondents to comply with all or any part of this Order shall not in any way excuse or justify noncompliance by any other Respondent. Further, the compliance by one or more Respondents with all or part of this Order shall not in any way excuse or justify noncompliance by any other Respondent.

VII. NOTICE TO THE STATE

- 7.1 Notice of issuance of this Order has been given to the State of Maryland pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

VIII. RESPONSE ACTION PLAN DEVELOPMENT AND IMPLEMENTATION

- 8.1 Respondents shall commence and complete performance of the following response action within the time periods specified herein.
- 8.2 Within ten (10) business days of the effective date of this Order, Respondents shall notify EPA in writing of the identity and qualifications of the contractor, subcontractor, supervisory personnel and other persons who will be primarily responsible for developing the Response Action Plan ("RAP") required by this Section. Respondents shall further notify EPA in writing of the identity and qualifications of all contractors, subcontractors, supervisory personnel and other persons selected by Respondents who will conduct all or any portion of the response action no less than five (5) day prior to commencement of the response action to be performed by such persons. Respondents shall ensure that all

contractors, subcontractors, supervisory personnel and/or other persons retained to perform response actions shall meet the applicable Occupational Safety and Health Administration ("OSHA") requirements as defined in 29 C.F.R. § 1910.120. The Respondents' selection of all contractors, subcontractors, supervisory personnel and other persons who will perform response action; the Respondents' Project Coordinator designated pursuant to Section IX; and any replacements to any such persons are subject to disapproval by EPA at any time. In the event of any such disapproval by EPA, Respondents shall notify EPA within three (3) calendar day of receipt of such EPA disapproval of the Respondents' selection of the person(s) who will replace the one(s) disapproved by EPA. If a person's selection is disapproved by EPA, they shall not perform such specified response action.

8.3 Respondents shall accomplish the following items:

- a. To protect public health, and to reduce the possibility of further erosion and migration of hazardous substances off Site, erect fencing as necessary to prevent unauthorized access to the Site.
- b. To protect the shoreline of the Site from erosion, which could result in the migration of hazardous substances off Site, install shore protection such as riprap, or gabions and coir logs, of adequate and appropriate design considerations.
- c. To mitigate further erosion of the surficial soils and the subsequent migration of hazardous substances off the Site, install or construct a temporary cover system over contaminated areas and adjacent areas which could cause the contaminated soils to erode.
- d. Provide field support facilities (e.g. trailer, phones, electrical services, as needed) to permit day-to-day operations.
- e. Provide and follow site specific health and safety measures, including preparation and implementation of a Health and Safety Plan ("HASP") for actions to be performed at the Site, to protect the health and safety of workers, other personnel and the public from the hazardous substances and work-related health and safety hazards during performance of the response action specified herein. The HASP shall, as appropriate, provide for proper decontamination of personnel and equipment, monitoring and control of offsite migration of hazardous substances during the performance of activities at the Site and protection of public health from exposure to hazardous substances during the conduct of activities at the Site pursuant to this Order. Health and safety requirements in the HASP shall be at least as stringent as those set forth in Occupational Safety and Health Administration and EPA requirements, including but not limited to, requirements contained in 29 C.F.R. § 1910.120 and/or EPA Standard Operating Safety Guides (July 5, 1988).
- f. Assess, characterize and inventory drums, boxes and other containers containing potential hazardous substances, pollutants or contaminants on the Site.

- g. Consolidate and properly package or bulk for transport and disposal, all disturbed or excavated soils or debris generated during Respondents' activities on Site, as well as other materials as identified in 8.3 (f) above containing hazardous substances, pollutants or contaminants that may threaten public health, welfare and/or the environment.
 - h. Obtain a Hazardous Waste Generator Identification Number.
 - i. Prepare waste materials identified above for off-site transportation and disposal to include as required, loading into roll-offs (with liners and proper covers) or into over-pack drums, labeling and marking as necessary and storing on-site until disposal is arranged.
 - j. Dispose of all waste items identified in 8.3 (i) above off-site in accordance with EPA's off-site rule, 40 C.F.R. § 300.440, and in accordance with Section 121(d) (3) of CERCLA, 42 U.S.C. § 9621(d)(3).
 - k. Develop and follow an expeditious schedule for implementation of the RAP.
- 8.4 Within twenty (20) calendar days of the effective date of this Order, Respondents shall submit to EPA for approval a RAP detailing the response action to be implemented for the items specified in paragraph 8.3 above. The RAP shall include, among other things, a schedule for expeditious performance of such response actions. To the extent that information concerning the details of a particular item does not yet exist so that it can be described in the RAP, the RAP shall set forth an expeditious schedule and plan for submittal of RAP supplement(s) to EPA for approval, which supplement(s) shall fully detail such items. All references to the review, approval and enforcement of the RAP shall also be applicable to any RAP supplement(s). The RAP shall include, among other things, a schedule for the expeditious performance of response actions required by this Order. The RAP shall be consistent with the NCP and shall be subject to approval by EPA according to the provisions of paragraphs 8.5 and 8.9 below.
- 8.5 EPA will review the RAP and notify the Respondents of EPA's approval or disapproval of the RAP. In the event of disapproval, EPA will specify the deficiencies in writing. The Respondents shall respond to and correct the deficiencies identified by EPA and resubmit the RAP to EPA within three (3) calendar days of receipt of EPA disapproval or such longer time as may be specified in writing by EPA in its discretion. Approval, disapproval and/or modification by EPA of the subsequent RAP submission shall be according to the provisions of Paragraph 8.9 below. Approval of the RAP shall not limit EPA's authority under the terms of this Order to require Respondents to conduct activities under this Order to accomplish the work outlined in paragraph 8.3 of this Order.
- 8.6 Within five (5) calendar days of receipt from EPA of written approval to proceed with implementation of the EPA-approved RAP ("written approval to proceed"), the Respondents shall commence implementation of such RAP and complete implementation in accordance with the RAP and the schedule therein. In the event EPA determines that any portion of the response action performed is deficient, and EPA requires Respondents to correct or re-perform such response action pursuant to this Order, Respondents shall

correct or re-perform the response action or portion of the response action in accordance with a schedule provided by EPA.

- 8.7 Beginning seven (7) calendar days subsequent to the date of receipt of EPA approval of the RAP and every seven (7) calendar days thereafter or longer as may be determined by the EPA Project Coordinator designated pursuant to Section IX, and until EPA advises Respondents that the Work is complete, the Respondents shall provide EPA with a progress report for each preceding 7- day period or if applicable, the period specified in writing by the EPA Project Coordinator. The progress reports shall include, at a minimum: 1) a description of the response action completed and the actions that have been taken toward achieving compliance with this Order; 2) a description of all data anticipated and activities scheduled for the next 7 calendar days or, if applicable, the period specified in writing by the EPA Project Coordinator; 3) a description of any problems encountered or anticipated; 4) any actions taken to prevent or mitigate such problems; 5) a schedule for completion of such actions; 6) copies of all analytical data received during the reporting period; and 7) all modifications to the response action, RAP and schedule made in accordance with Section XV of this Order during the reporting period.
- 8.8 Documents, including plans, approval letters, reports, sampling results and other correspondence to be submitted pursuant to this Order, shall be sent by certified or overnight mail to the EPA Project Coordinator designated pursuant to Section IX.
- 8.9 All reports, plans, specifications, schedules and attachments required by this Order are subject to EPA approval and shall be incorporated into this Order upon approval by EPA. In the event that EPA approves a portion of the RAP, report or other item required to be submitted to EPA under this Order, the approved portion shall be enforceable under this Order. In the event of conflict between this Order and any document attached hereto, incorporated in or enforceable hereunder, the provisions of this Order shall control. In the event that EPA disapproves any required submission, EPA will (1) specify the deficiencies in writing, and/or (2) submit its own modifications to the Respondents to accomplish the Work outlined in paragraph 8.3 above. Respondents shall amend and submit to EPA a revised submission that responds to and corrects the specified deficiencies within five (5) business days of receipt of EPA disapproval or such longer time as may be specified by EPA in its discretion. In the event that EPA submits its own modifications to the Respondents, the Respondents are hereby required to incorporate such modifications. Any non-compliance with EPA-approved plans, reports, specifications, schedules, attachments, or submission of deficient revisions following EPA disapproval, or non-compliance with an EPA required modification shall be considered a failure to comply with a requirement of this Order. Determination(s) of non-compliance will be made by EPA.
- 8.10 In addition to the information and documents otherwise required by this Order, Respondents shall provide to EPA, upon written request, any and all information and documents in its possession, custody or control related to the Site including, but not

limited to, Site analytical data (including raw data); Site safety data; Site monitoring data; operational logs; copies of all hazardous waste manifests (including copies of all hazardous waste manifests signed upon receipt of the hazardous wastes by a licensed treatment, storage or disposal facility); the identity of treatment, storage and/or disposal facilities used; the identity of transporters used; the identity of any contractors, subcontractors and supervisory personnel used; information and documents concerning Respondents' compliance with Quality Assurance and Quality Control requirements of this Order; information and documents relating to Respondents' efforts to secure access; and information and documents relating to any project delays. Nothing herein shall be interpreted as limiting the inspection and information-gathering authority of EPA under Federal law.

- 8.11 Within twenty (20) calendar days of the date Respondents conclude they have completed implementation of the RAP and the items identified in paragraph 8.3, above, Respondents shall submit a written Final Report to EPA subject to EPA approval described in 8.9 above. The Final Report shall detail the work undertaken to implement the RAP and the items identified in paragraph 8.3, above, and shall be certified by Respondents in accordance with the terms of Section XVIII, below. EPA will review the adequacy of Respondents' implementation of the RAP and accomplishment of items specified in paragraph 8.3 above. EPA will notify Respondents, in writing, of any discrepancies in the Final Report or deficiencies in the execution of the RAP and the items identified in paragraph 8.3, above, and the actions required to correct such discrepancies or deficiencies. Within five (5) business days of receipt of notification by EPA, or as otherwise specified by EPA in its discretion, Respondents shall, as directed by EPA, amend the Final Report, develop an additional plan or amend the existing RAP to address such discrepancies or deficiencies. Any additional plan or amendment will be subject to the approval procedures outlined in paragraphs 8.5 and 8.9 above. Respondents shall perform all actions approved by EPA in a manner consistent with the NCP and all applicable Federal laws and regulations, as required by the NCP.
- 8.12 Respondents shall not handle or remove any hazardous substances from the Site except in conformance with the terms of this Consent Order and all applicable Federal, State and local laws and regulations, as required by the NCP. Any hazardous substance, pollutant or contaminant transferred for disposal off-site as a result of this Order must be taken to a facility acceptable under EPA's Off-Site Policy (58 Fed. Reg. 49200 (September 22, 1993)) in accordance with any rule or regulation promulgated pursuant to Section 121(d) (3) of CERCLA, 42 U.S.C. § 9621(d) (3).
- 8.13 Respondents shall not commence any Work except in conformance with the terms of this Order. Respondents shall not commence implementation of the RAP developed hereunder until receiving written EPA approval to proceed pursuant to paragraph 8.6. Any additional plan or amendment will be subject to the approval procedures outlined in paragraphs 8.5 and 8.9 above. No Respondents shall interfere in any way with the performance of Work in accordance with this Order by any other Respondent(s), nor may

any Respondents impede or prevent any other Respondent(s) from reasonable access to any area of the Site to comply with the requirements of this Order.

- 8.14 Respondents shall immediately notify EPA's Project Coordinator [215 514-8773] and the National Response Center [(800) 424-8802] and any other party required by law in the event of any action or occurrence during the pendency of this Order which causes or threatens to cause an additional release of hazardous substances, pollutants or contaminants on, at or from the Site, or which may create a danger to public health, welfare or the environment.
- 8.15 In the event that EPA believes that response actions or other activities at the Site by Respondents are causing or may cause a release of hazardous substances, or are a threat to public health or welfare or the environment, EPA may, in its discretion, immediately halt or modify such response actions or other activities to eliminate or mitigate such releases or threats.

IX. DESIGNATED PROJECT COORDINATORS

- 9.1 Respondents shall designate a Project Coordinator and shall notify EPA of such designation no later than four (4) calendar days after the effective date of this Order. Designation of a Project Coordinator shall not relieve the Respondents of their obligation to comply with all requirements of this Order. The Respondents' Project Coordinator shall be a technical and/or managerial representative of the Respondents and may be a contractor and/or consultant; provided, however, the Respondents' Project Coordinator shall not be their legal representative in this matter. The Project Coordinator for EPA designated pursuant to this Section and the Project Coordinator for the Respondents shall be responsible for overseeing the Work. To the maximum extent possible, communications between the Respondents and EPA and all documents concerning the activities performed pursuant to the terms and conditions of this Order, including plans, reports, approvals and other correspondence, shall be directed to the Project Coordinators.
- 9.2 The Project Coordinator for EPA is:

Richard Rupert
On-Scene Coordinator
U.S. Environmental Protection Agency
Removal Enforcement Section (3HW32)
1650 Arch Street
Philadelphia, PA 19103
(215) 814-2879
Cellular phone 215 514-8773

- 9.3 Respondents shall have the right to change their Project Coordinator. Such a change shall be accomplished by notifying the EPA Project Coordinator in writing at least five (5) calendar days prior to the change.
- 9.4 EPA shall have the right to change its Project Coordinator at any time without prior notice to Respondents. EPA's intent is to notify the Respondents as soon as practicable following any change of its Project Coordinator.
- 9.5 The absence of the EPA Project Coordinator from the Site shall not be cause for the stoppage or delay of Work except when such stoppage or delay is specifically required by EPA.
- 9.6 The EPA Project Coordinator shall have the authority to halt or modify Work or other activities performed by Respondents at the Site in order to eliminate a release or threat of release of hazardous substances. Such direction by the EPA Project Coordinator may be given verbally or in writing. If such direction is given verbally, the EPA Project Coordinator will later memorialize such direction in writing.

X. QUALITY ASSURANCE

- 10.1 The Respondents shall use quality assurance, quality control and chain of custody procedures in accordance with the following documents while conducting all sample collection and analysis activities required by this Order:
- (a) "EPA NEIC Policies and Procedures Manual" (EPA Document 330/9-78-001-R (revised November 1984));
 - (b) "Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans," (QAMS-005/80 (December 1980)); and
 - (c) "QA/QC Guidance for Removal Activities," (EPA/540/G-90/004 (April 1990)).
- 10.2 The Respondents shall consult with EPA in planning for, and prior to, all sampling and analysis required by the approved RAP. The Respondents shall use a laboratory(s), which has a documented Quality Assurance Program that complies with EPA guidance document QAMS-005/80.

XI. SITE ACCESS

- 11.1 As of the effective date of this Order, Respondents shall provide to EPA and its employees, agents, consultants, contractors and other authorized and/or designated representatives, for the purposes of conducting and/or overseeing the Work, access to all property owned or controlled by Respondents wherein Work must be undertaken. Such access shall permit EPA and its employees, agents, consultants, contractors and other

authorized and designated representatives to conduct all activities described in paragraph 11.3 of this Order.

- 11.2 To the extent that property wherein Work must be undertaken is presently owned or controlled by parties other than any of the Respondents, the Respondents shall use their best efforts to obtain Site access agreements from the present owners. Such access agreements shall be finalized as soon as practicable but no later than five (5) calendar days after receiving EPA's written approval to proceed. Such agreements shall provide reasonable access for Respondents and their employees, agents, consultants, contractors and other authorized and designated representatives to conduct the Work, and for EPA and its designated representatives to conduct the activities outlined in paragraph 11.3 below. In the event that any property owner refuses to provide such access or access agreements are not obtained within the time designated above, whichever occurs sooner, the Respondents shall notify EPA at that time, in writing, of all efforts to obtain access and the circumstances of the failure to obtain such access. EPA may then take steps to provide such access. Respondents shall reimburse the United States for all costs incurred in obtaining access, which are not inconsistent with the NCP. Best efforts shall include, but not be limited to, agreement to reasonable conditions for access and/or the payment of reasonable fees.
- 11.3 In accordance with law and regulation, as appropriate, EPA and its employees, agents, contractors, consultants and other authorized and designated representatives shall have the authority to enter and freely move about the location where the response actions and/or Work is being performed at all reasonable times for the purposes of, inter alia: inspecting Work, records, operating logs and contracts related to the Site; reviewing the progress of the Respondents in carrying out the terms of this Order; conducting such tests as EPA deems necessary; using a camera, sound recording or other documentary type equipment; and verifying the data submitted to EPA by the Respondents. The Respondents shall permit such persons to inspect and copy all records, files, photographs, documents and other writings, including all sampling and monitoring data, in any way pertaining to the Work.
- 11.4 Respondents may make a claim of business confidentiality for information submitted pursuant to this Order in the manner described in 40 C.F.R. § 2.203(b). Such an assertion shall be adequately substantiated in accordance with 40 C.F.R. § 2.204(e) (4) at the time the assertion is made. Information subject to a confidentiality claim shall be made available to the public by EPA only in accordance with the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such claim of business confidentiality accompanies the information when it is submitted or made available to EPA, the submitted information may be made available to the public by EPA without further notice to Respondents. All submitted information, including information claimed as confidential, may be disclosed by EPA to its authorized or designated representatives, pursuant to applicable law and regulation.

- 11.5 The Respondents may withhold those records and documents covered by any privilege or protection recognized under federal law and applied by federal courts in actions commenced by the United States. In the event that the Respondents withhold a document as privileged, the Respondents shall provide EPA with the title of the document, the date of the document, the name(s) of the author(s) and addressee(s)/recipient(s), a description of the nature of the document and identification of the privilege asserted at the time such document is required to be provided to EPA.
- 11.6 No claim of confidentiality or privilege shall be made regarding any data required to be submitted pursuant to this Order including, but not limited to, sampling, analytical, monitoring, hydrogeologic, scientific, chemical or engineering data, or documents or information evidencing conditions at or around the Site. Nor shall such claims be made for analytical data; Site safety data; Site monitoring data; operational logs; hazardous waste manifests; identities of treatment, storage and/or disposal facilities used; identities of transporters used; identities of any contractors or subcontractors used in performing work required by this Order.
- 11.7 Notwithstanding any provision of this Order, EPA retains all of its access and information-gathering authorities and rights under CERCLA and any other applicable statute and regulation.

XII. RESERVATION OF RIGHTS

- 12.1 Except as expressly provided in this Order, EPA reserves all rights, claims, interests and defenses it may otherwise have, and nothing herein shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Order, including the right to seek injunctive relief and/or the imposition of statutory penalties.
- 12.2 As provided by this Order, EPA expressly reserves its right to disapprove of Work performed by Respondents; to halt Work being performed by Respondents if Respondents have not complied with an approved RAP or this Order, or at any time EPA deems necessary to protect public health, welfare or the environment and to perform such Work; to request or require that Respondents perform response actions in addition to those required by this Order. Further, EPA reserves the right to undertake response action at any time EPA deems appropriate. In the event that EPA requires Respondents, and Respondents decline, to correct and/or re-perform work that has been disapproved by EPA and/or to perform response actions in addition to those required by this Order, EPA reserves the right to undertake such actions and seek reimbursement of the costs incurred and/or to seek any other appropriate relief. In addition, EPA reserves the right to undertake removal and/or remedial actions at any time that such actions are appropriate under the NCP and to seek reimbursement for any costs incurred, and/or take any other action authorized by law.

- 12.3 EPA reserves the right to bring an action against the Respondents for recovery of all recoverable costs incurred by the United States related to this Order, which are not reimbursed by the Respondents, as well as any other costs incurred by the United States in connection with response actions conducted at the Site.
- 12.4 This Order concerns certain response actions (Work described in Section VIII, above) concerning the Site. Such response actions might not fully address all contamination at the Site. Subsequent response actions, which may be deemed necessary by EPA, are not addressed by this Order. EPA reserves all rights including, without limitation, the right to institute legal action against Respondents and/or any other parties, in connection with the performance of any response actions not addressed by this Order.
- 12.5 EPA reserves the right to take enforcement actions, including actions for monetary penalties, for any violation of law, regulation, or of this Order. Failure to comply with this Order subjects Respondents to the assessment of civil penalties of up to \$27,500 per day and/or punitive damages in an amount up to three times the amount of any costs incurred by the United States as a result of such failure pursuant to Sections 106(b) and 107(c) of CERCLA, 42 U.S.C. §§ 9606(b) and 9607(c), and 40 C.F.R. Part 19. EPA may also undertake such other actions as it may deem necessary or appropriate for any purpose including, but not limited to, actions pursuant to Sections 104 and/or 106 of CERCLA, 42 U.S.C. §§ 9604 and 9606.
- 12.6 Nothing in this Order shall limit the authority of the EPA On-Scene Coordinator as outlined in the NCP and CERCLA.

XIII. OTHER CLAIMS

- 13.1 Nothing in this Order shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation not bound by this Order for any liability it may have relating in any way to the generation, storage, treatment, handling, transportation, release or disposal of any hazardous substances, hazardous wastes, pollutants or contaminants found at, taken to, or taken from the Site.
- 13.2 This Order does not constitute any decision on preauthorization of funds under Section 111(a) (2) of CERCLA, 42 U.S.C. § 9611(a) (2).
- 13.3 Neither EPA nor the United States, by issuance of this Order, assumes any liability for any acts or omissions by Respondents, or Respondents' employees, agents, contractors, or consultants engaged to carry out any action or activity pursuant to this Order, nor shall EPA or the United States be held out as a party to any contract entered into by Respondents or by Respondents' employees, agents, contractors, or consultants engaged to carry out the requirements of this Order.

- 13.4 Nothing herein shall constitute or be construed as a satisfaction or release from liability of Respondents or any other person.

XIV. OTHER LAWS

- 14.1 All Work shall be undertaken in accordance with the requirements of all applicable and/or relevant and appropriate local, State and Federal laws and regulations, as required by the NCP.

XV. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

- 15.1 The effective date of this Order shall be the date it is signed by EPA.
- 15.2 This Order may be modified or amended by EPA. Such amendments shall be in writing and shall have as their effective date the date on which such amendments are signed by EPA. Modifications to the EPA-approved RAP and its implementation may be made by EPA including the EPA Project Coordinator. Such modifications shall be memorialized in writing by the Project Coordinator.
- 15.3 Any reports, plans, specifications, schedules, or other submissions required by this Order are, upon approval by EPA, incorporated into this Order. Any non-compliance with such EPA-approved reports, plans, specifications, schedules, or other submissions shall be considered non-compliance with the requirements of this Order. Determinations of non-compliance will be made by EPA.
- 15.4 No informal advice, guidance, suggestions or comments by EPA regarding reports, plans, specifications, schedules or other submissions by the Respondents or the requirements of this Order will be construed as relieving the Respondents of their obligation to obtain formal approval when required by this Order, and to comply with the requirements of this Order unless formally modified.

XVI. LIABILITY OF THE UNITED STATES

- 16.1 Neither the United States Government nor any agency thereof shall be liable for any injuries or damages to persons or property resulting from acts or omissions of Respondents or of their employees, agents, servants, receivers, successors or assigns, or of any persons including, but not limited to firms, corporations, subsidiaries, contractors or consultants in carrying out the Work, nor shall the United States Government or any agency thereof be held out as a party to any contract entered into by Respondents in carrying out the Work.

XVII. FAILURE TO PERFORM/PERFORMANCE EVENTS

- 17.1 In the event of an inability or anticipated inability on the part of Respondents to perform any of the actions or Work required by this Order in the time and manner required herein, the Respondents' Project Coordinator shall notify EPA orally as soon as possible but no later than within twenty-four (24) hours of the time Respondents or any one of them become aware or should have become aware of such event (or, if the event occurs on a Friday or Saturday, no later than the following Monday) and in writing no later than seven (7) calendar days after Respondents or any one of them become aware, or should have become aware, of such delay or anticipated delay. Such written notification shall be certified by a responsible official of Respondents in accordance with Section XVIII of this Order and shall describe fully the nature of the delay, including how it may affect the Work, RAP and schedule; the actions that will be or have been taken to mitigate, prevent, and/or minimize further delay; and the timetable according to which future actions to mitigate, prevent and/or minimize the delay will be taken. Such notification shall not relieve Respondents of any obligation of this Order. The Respondents shall adopt all reasonable measures to avoid and minimize such delay.
- 17.2 Failure by Respondents to carry out any requirement of this Order in accordance with the terms and conditions specified herein may result in the unilateral performance of the required actions by EPA pursuant to applicable authorities, an action to recover treble damages pursuant to CERCLA, and/or the initiation of an enforcement action against Respondents to require Respondents to perform such actions, in addition to any other relief that may be available to EPA pursuant to applicable law.
- 17.3 Nothing in this paragraph or any other provision of this Order shall be construed so as to limit any powers EPA may have under CERCLA, the NCP, or any other law or regulation.

XVIII. CERTIFICATION OF COMPLIANCE

- 18.1 (a) Unless otherwise required by the terms of this Order, any notice, report, certification, data presentation or other document submitted by Respondents under or pursuant to this Order which discusses, describes, demonstrates or supports any finding or makes any representation concerning Respondents' compliance or non-compliance with any requirement(s) of this Order shall be certified by each Respondents, a responsible official of each of the Respondents or by the Project Coordinator for the Respondents. The term "responsible official" means: (i) a president, secretary, treasurer or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$35 million (in

1987 dollars when the consumer price index was 345.3), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. The responsible official of a partnership or sole proprietorship means the general partner or the proprietor, respectively.

- (b) The written Final Report required by paragraph 8.11 of this Order, and any written notification described in paragraph 17.1 of this Order shall be certified by each Respondents or a responsible official of each Respondents.

18.2 The certification required by paragraph 18.1 of this Order shall be in the following form:

Except as provided below, I certify that the information contained in or accompanying this (type of submission) is true, accurate and complete.

As to (the/those) portion(s) of this (type of submission), for which I cannot personally verify (its/their) accuracy, I certify under the penalty of law that this (type of submission) and all attachments were prepared under my direction or 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.

Signature: _____

Name(print): _____

Title: _____

- 18.3 Submission of documents pursuant to this Order which are found by EPA to contain false information shall constitute a failure to comply with this Order and shall subject Respondents to, among other things, penalties whether or not a responsible official of Respondents has certified the document.

XIX. SHIPMENT OF HAZARDOUS SUBSTANCES

- 19.1 Respondents shall, prior to any off-site shipment of hazardous substances from the Site to an out-of-state waste management facility, provide written notification to the appropriate state environmental official in the receiving state and to EPA's Project Coordinator of such shipment of hazardous substances. However, the notification to EPA of shipments shall not apply to any such off-site shipments when the total volume of all such shipments will not exceed ten (10) cubic yards. Notifications to states in those circumstances shall be governed by applicable state law.

- 19.2 The notification required by paragraph 19.1 shall be in writing and shall include the following information, where available: (1) the name and location of the facility to which the hazardous substances are to be shipped; (2) the type and quantity of the hazardous substances to be shipped; (3) the expected schedule for the shipment of the hazardous substances; and (4) the method of transportation of the hazardous substances. Respondents shall notify the receiving state of major changes in the shipment plan, such as a decision to ship the hazardous substances to another facility within the same state or to a facility in another state.
- 19.3 The identity of the receiving facility and state will be determined by Respondents unless disapproved by EPA. Respondents shall provide all relevant information, including information required by paragraph 19.2, above, relating to the off-site shipments as soon as practicable but no later than one (1) business day before the hazardous substances are actually shipped.

XX. NOTICE OF INTENT TO COMPLY

- 20.1 Respondents shall notify EPA's Project Coordinator within three (3) business day after the effective date of this Order of Respondents' intention to comply with the terms of this Order. Failure of Respondents to provide notification to EPA's Project Coordinator of intent to comply within this time period shall be deemed a violation of this Order by Respondents.

XXI. OPPORTUNITY TO CONFER WITH EPA

- 21.1 Not later than two (2) business days from the effective date of this Order, Respondents may confer with EPA to discuss this Order. Such conference is not an adversarial hearing or part of a proceeding to challenge this Order, and no official stenographic record of such conference shall be kept.

XXII. ADMINISTRATIVE RECORD

- 22.1 The Administrative Record upon which this Order is issued is available for review by Respondents' representatives at its request. Requests to review the Administrative Record shall be submitted to the EPA Project Coordinator designated pursuant to Section IX of this Order.

XXIII. RECORD RETENTION

- 23.1 Respondents shall preserve all documents and information relating to the Work performed under this Order, or relating to the hazardous substances found at or released from the Site, for six (6) years following completion of the response action required by this Order. In addition, Respondents shall also retain, as appropriate, monthly reports on analytical services pursuant to OSWER Directive No. 9240.0-2B, "Extending the Tracking of Analytical Services to Potentially Responsible Party-Lead Superfund Sites," (July 6, 1992). At the end of this six year period and thirty (30) days before any document or information is destroyed, Respondents shall notify EPA that such documents and information are available to EPA for inspection, and upon request, shall provide the originals or copies of such documents and information to EPA.


XXIV. DEFINITIONS

- 24.1 "Business days" as used in this Order shall mean every day of the week except Saturdays, Sundays and federal holidays.
- 24.2 "Calendar days" as used in this Order shall mean every day of the week, including Saturdays, Sundays and federal holidays.
- 24.3 "Days" as used herein shall mean "calendar days" unless specified otherwise.
- 24.4 All terms not defined herein shall have the meanings set forth in CERCLA and the NCP.

XXV. NOTICE OF COMPLETION

- 25.1 When EPA determines, after EPA's review and approval of the Final Report required pursuant to paragraph 8.11 of this Order, that the response action specified in Section VIII of this Order has been fully performed, and upon receipt of penalties hereunder, with the exception of any continuing obligations required by this Order, including those requirements specified in Sections XII ("Reservation of Rights"), XIII ("Other Claims"), XVI ("Liability of the United States"), XXIII ("Record Retention") and XXIV ("Post Removal Site Control"), EPA will provide a notice of completion to the Respondents.

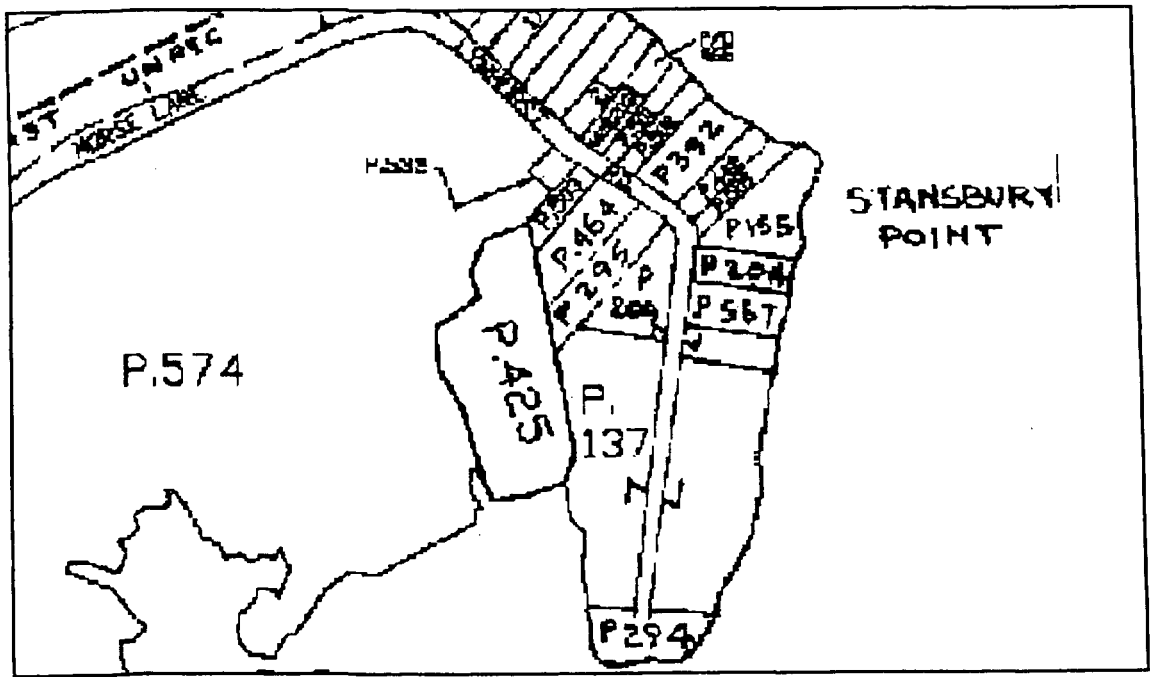
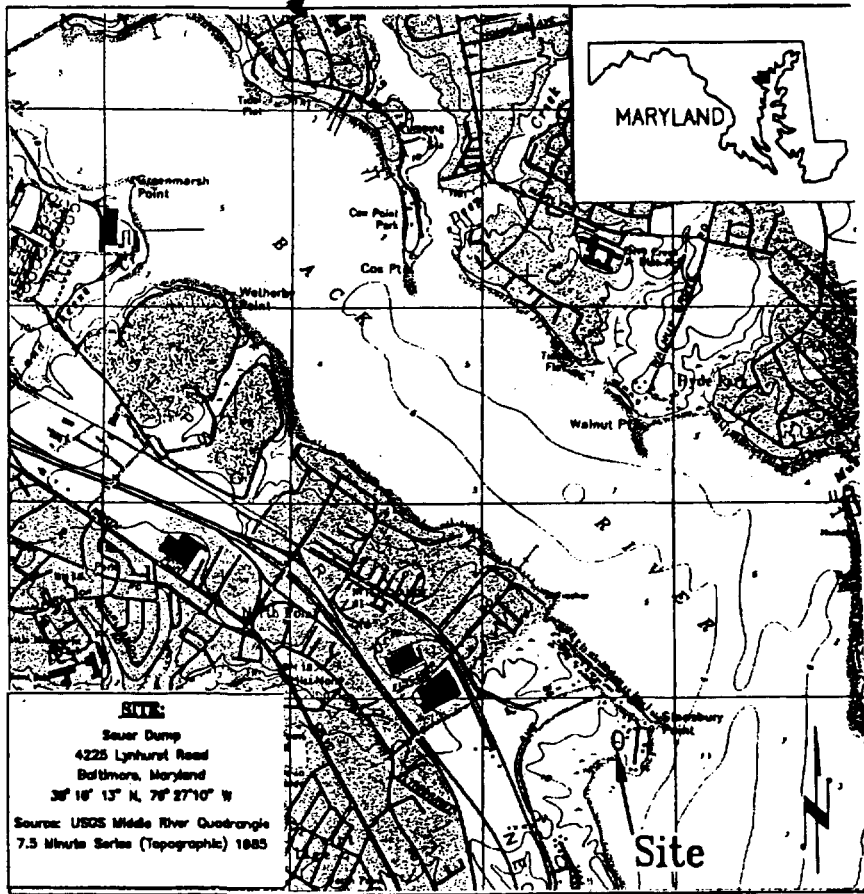
IT IS SO ORDERED.



ABRAHAM FERDAS
Director, Hazardous Site Cleanup Division
U.S. Environmental Protection Agency
Region III

12/8/05
Date

Attachment A



Attachment B

ATSDR Record of Activity

UID #: R L W 0 Date: 12 / 05 / 02 Time: _____ am ___ pm ___

Site Name: Sauer Dump Site City: Baltimore Cnty: Baltimore State: MD

CERCLIS #: Unknown Cost Recovery #: 30 EW Region: III

Site Status (1) NPL Non-NPL RCRA Non-Site specific Federal
 (2) Emergency Response Remedial Other

Activities

Incoming Call Public Meeting Health Consult Site Visit
 Outgoing Call Other Meeting Health Referral Info Provided
 Conference Call Data Review Written Response Training
 Incoming Mail Other

Requestor and Affiliation: () Mike Taurino / U.S. EPA
 Phone: 215/814-3371 Address: 1650 Arch St.
 City: Philadelphia State: PA Zip Code: 19103

Contacts and Affiliation

(31) Tom Stukas () _____
 () _____ () _____

1-EPA	2-USCG	3-OTHER FED	4-STATE ENV	5-STATE HLT
6-COUNTY HLTH	7-CITY HLTH	8-HOSPITAL	9-LAW ENFORCE	10-FIRE DEPT
11-POISON CTR	12-PRIV CITZ	13-OTHER	14-UNKNOWN	15-DOD
16-DOE	17-NOAA	18-OTHR STATE	19-OTHR COUNTY	20-OTHR CITY
21-INTL	22-CITZ GROUP	23-ELECT. OFF	24-PRIV. CO	25-NEWS MEDIA
26-ARMY	27-NAVY	28-AIR FORCE	29-DEF LOG AGCY	30-NRC
31-ATSDR				

Program Areas

Health Assessment Health Studies Tox Info-profile Worker Hlth
 Petition Assessment Health Survellnc_ Tox Info-Nonprofil_ Admin
 Emergency Response Disease Registry Subst-Spec Resch Other
 Health Consultation Exposr Registry Health Education

Narrative Summary: U.S. Environmental Protection Agency (EPA) Region III requested the Agency for Toxic Substances and Disease Registry (ATSDR) to review the results of soil samples obtained from the Sauer Dump site, and provide a public health opinion regarding exposure to the contaminants reported.

Sauer Dump site is an inactive site that began operation in the 1960s. It is approximately 2.5 acres. Over the years, significant amounts of fill was dumped at the site. The site is fenced and has warning signs which indicate that it is a Maryland Department of Environment (MDE) remediation area. The MDE has preliminary plans to cap the site in accordance with the self implementing plan of the Toxic Substances Control Act (TSCA). The surroundings of the site are highly vegetated. Several residences are located adjacent to the site.

Recently, EPA's Removal Response Section conducted an environmental sampling event at the site. Polychlorinated biphenyls (PCBs) were detected in surface soil samples obtained from 0 to 3" at 0.04 milligrams/kilograms (mg/kg) up to 59 mg/kg. Other semi-volatile organic compounds (SVOCs) including pesticides and polycyclic aromatic hydrocarbons (PAHs) were detected in surface soil samples at concentrations which ranged from 0.002 mg/kg to 4.1 mg/kg. Lead was detected in surface soil samples which ranged from non-detect to 3,300 mg/kg in a 100' by 60' highly contaminated area of the site. No other metals were detected at levels of public health concern. Sub-surface soil sampling results revealed that the on-site 100' by 60' area contains PCBs ranging from non-detect to 33,000 mg/kg at depths 4' to 5' below surface.

Discussion:

Because of the residential nature of the area, and access to the site is relatively easy, children could frequent the site and come in direct contact with the uncovered contaminated soil piles. Therefore, trespassers at this site can be exposed through dermal contact with contaminated soil, ingestion of contaminated soil, and through inhalation of contaminated dust.

Lead and PCBs were detected in on-site surface soil samples taken from 0 - 3" up to 3,300 mg/kg and 59 mg/kg, respectively. Residential soil lead levels exceeding 400 mg/kg may NOT be protective of public health, especially if children live in the residences. Sub-surface soil samples obtained from 4' to 5' below surface revealed PCBs up to 33,000 mg/kg.

Since there is such a high degree of variability in historic urban land use patterns, a site may serve a number of uses such as residential, commercial, industrial, and recreational. Land use will significantly affect the types and amount of human activity, thereby affecting the degree and intensity of contact with associated surface and sub-surface soils. Concern for contaminants at residential and recreational areas are likely to be higher than for industrial or commercial areas since the likelihood of human contact is higher. Sometimes the frequency of soil contact in recreational areas is expected to be lower than residential areas. Furthermore, residential gardens in areas of contaminated soil may present a potential route for human contaminant exposure. Food crops grown in contaminated soil may take up the contaminants in the root or ground crops such as potatoes may take up contaminants from the soil.

Exposure to lead may cause serious adverse health effects, particularly in young children. Young children and fetuses are especially sensitive to the toxic effects of lead exposures. Factors influencing this susceptibility include (1) the immaturity of the blood brain barrier; (2) hand-to-mouth activity and pica behavior; (3) nutritional status of the child; (4) low body weight; and (5) passive diffusion of the contaminants across the placenta barrier. Because of these factors, children are more at risk of developing adverse health effects than adolescents and adults.

Soil and dust ingestion rates are highly variable and are affected by several

factors including seasonal changes, socioeconomic and cultural factors, degree of exposed versus covered soils and dusts, and recreational activities. Human studies indicate that ingestion, or inhalation of lead contaminated soil, or dust can result in elevated blood lead levels. Blood lead levels greater than 10 micrograms/deciliter ($\mu\text{g}/\text{dl}$) have been linked to adverse developmental effects in fetuses, hearing impairment, stunting of growth, and reductions in intelligence quotients (IQ) in children [1].

A child weighing 20 kilograms who ingests 200 mg of soil/day containing lead at 3,300 mg/kg would consume about 0.03 mg/kg/day. A dose of lead at 0.05 mg/kg/day for 5 days per week for 200 days has been shown to cause adverse neurological effects or deficits in learning abilities in monkeys [1]. Although this estimated exposure dose for lead is lower than the dose observed in monkeys, which caused neurological effects, blood lead levels increase on average about 5 $\mu\text{g}/\text{dl}$ for every 1,000 mg/kg of lead in soil, or dust and may increase 3 to 5 times higher than the mean response depending on play habits and mouthing behavior.

Polychlorinated biphenyls are a group of man-made chemicals that contain 209 individual isomers. They are widely distributed in the environment and are considered as probable human carcinogens by EPA. Polychlorinated biphenyls are persistent in the environment and are resistant to degradation. They are lipophilic and tend to absorb strongly to soils, therefore they are not expected to leach significantly into groundwater [2].

Because of the highly stable nature of PCBs, they were used in electrical capacitors, transformers, paints, varnishes, lubricants and heat transfer fluids. Although new PCBs production has been banned in the United States, the high fat solubility, and poor degradation of those PCBs already contaminating the environment pose a continuing threat [2]. Acute toxicity is low, but because PCBs accumulate in animal and human tissues, chronic delayed toxicity may occur. Chloracne is a dermatologic condition observed in some individuals who are exposed to PCBs. The lesions may include cysts that may become inflamed and infected. The rash may be found on the trunk, arms, face, neck, or back, and is quite resistant to treatment. Any route of exposure to PCBs may result in chloracne [2].

EPA has set a soil clean-up level for PCBs at 1 mg/kg for residential settings. The concentration of PCBs in the soil above which some action should be considered will depend primarily on the exposure expected based on current and potential future land use. In areas where land use is residential, this concentration will be based on standard assumptions for direct contact i.e., dermal, ingestion, and inhalation and should consider potential impact to groundwater. Furthermore, where land use is industrial, a more appropriate concentration at which to start analysis may be at 10-25 mg/kg since direct exposure is less frequent than for residential land use and higher concentrations will be protective.

Conclusions:

- (1) Contaminants i.e., lead and PCBs detected in surface soil samples at this site pose a public health hazard for a residential setting;
- (2) PCBs detected in sub-surface soil samples at this site may pose a public health hazard if gardening, or construction activities involving digging or trenching bring contaminated soil to the surface.

Signature: Robert L. Williams Date: Jan. 9, 2003

Signature: Joseph Little Date: Jan. 9, 2003

Concurrence: Mike Allred Ph.D. Date: Jan. 9, 2003
cc:

References

1. ATSDR's Update Toxicological Profile for Lead, July 1999.
2. ATSDR's Update Toxicological Profile for Polychlorinated Biphenyls, November 2000.