

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF KENTUCKY
PADUCAH DIVISION

UNITED STATES OF AMERICA and
THE COMMONWEALTH OF KENTUCKY,

Plaintiffs,

v.

WESTLAKE VINYL, INC.
AND WESTLAKE PVC CORPORATION,

Defendants.

Civil Action No.

5:10CV168-R

CONSENT DECREE

WHEREAS, Plaintiff, the United States of America ("the United States"), on behalf of the United States Environmental Protection Agency ("EPA"), has filed a civil action against Westlake Vinyls, Inc. and Westlake PVC Corporation (collectively "Westlake" or "Defendants") for civil penalties and injunctive relief based on alleged violations of the Clean Air Act ("CAA"), 42 U.S.C. § 7401 et seq., as well as federal regulations promulgated thereunder, including the Hazardous Organic National Emission Standards for Hazardous Air Pollutants (the "HON"), 40 C.F.R. Part 63, Subparts F, G, and H, and the Air Implementation Plan for the Commonwealth of Kentucky approved by EPA pursuant to the CAA (the "Kentucky SIP"); the Clean Water Act (the "CWA"), 33 U.S.C. § 1251 et seq., and applicable laws and regulations implementing the CWA; the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6901 et seq., 40 C.F.R.

Parts 260-273, and 279 and applicable regulations implementing RCRA; Sections 103(a) and 109(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, ("CERCLA"), 42 U.S.C. § 9603(a) and § 9609(c), and implementing regulations set forth at 40 C.F.R. Part 302; and Sections 304, 313 and 325(b)(3) of the Emergency Planning and Community Right to Know Act of 1986 ("EPCRA"), 42 U.S.C. §§ 11004, 11013 and 1045(b)(3);

WHEREAS, the Commonwealth of Kentucky ("Commonwealth"), on behalf of the Kentucky Department of Environmental Protection, has commenced a civil action against Defendants for civil penalties and injunctive relief based on alleged violations of the CAA and Kentucky air regulations including the Kentucky SIP;

WHEREAS, the complaints filed by the United States and the Commonwealth relate to a chemical manufacturing plant owned and operated by Westlake Vinyls, Inc. in Calvert City, Kentucky (the "Vinyls Plant") and a polyvinyl chloride manufacturing plant owned and operated by Westlake PVC Corporation in Calvert City, Kentucky (the "PVC Plant"), together ("Westlake Facilities" or "Facilities");

WHEREAS, the purpose of this Consent Decree is to ensure compliance with applicable environmental laws and regulations and resolve alleged violations at the Westlake Facilities;

WHEREAS, EPA and the Commonwealth conducted a multimedia inspection of the Westlake facilities on March 5-13, 2002, June 10-13, 2002, and February 23-26, 2004, pursuant to the EPA National Vinyl Chloride Initiative for compliance with RCRA, CAA, CWA, EPCRA, and CERCLA. As a result of those inspections, alleged violations were noted and set forth in a Notice of Violation (the "NOV");

WHEREAS, the Commonwealth concurred in the United States' resolution of the RCRA violations identified during the multimedia inspection, and the Commonwealth has not issued a Notice of Violation for any RCRA violations to Westlake. The Commonwealth is therefore not taking part in any of the provisions of this Consent Decree relating to the remedial measures to address the RCRA violations. Furthermore, the Commonwealth will not take any separate action against Westlake with regards to the RCRA violations identified in the Complaint filed by the United States;

WHEREAS, by agreeing to entry of this Consent Decree, Westlake makes no admission of law or fact with respect to the allegations in the Complaint and denies any non-compliance or violation of any law or regulation identified therein. For the purpose of avoiding litigation among the parties, however, Westlake agrees to the requirements of this Consent Decree;

WHEREAS, Westlake has waived all applicable federal or state requirements of statutory notice of the alleged violations;

WHEREAS, Westlake has voluntarily completed emission reduction projects that have achieved substantial reductions in emissions;

WHEREAS, the Parties recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and will avoid litigation among the Parties and that this Consent Decree is fair, reasonable, and in the public interest;

NOW, THEREFORE, before the taking of any testimony, without the adjudication or admission of any issue of fact or law and with the consent of the Parties, IT IS HEREBY ORDERED, ADJUDGED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action and over the Parties, pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b); Section 3008(a) of RCRA, 42 U.S.C. § 6928; Section 325(c)(4) of EPCRA, 42 U.S.C. § 11045(b)(3), (c)(4); Sections 309 (b) and (d) and 311(b) of the CWA, 33 U.S.C. §§ 1319(b) & (d) and 1321(b); Sections 103(a) and 113(b) of CERCLA, 42 U.S.C. §§ 9603(a) and 9613(b); and 28 U.S.C. §§ 1331, 1345, and 1355. This Court has supplemental jurisdiction under 28 U.S.C. § 1367, over the claims asserted by the Commonwealth of Kentucky.

2. Venue is proper in the Western District of Kentucky pursuant to 28 U.S.C. §§ 1331, 1345, 1355, 1395(a), and 1391(b) and (c), 42 U.S.C. § 7413(b), 42 U.S.C. § 6928(a) and (g), 33 U.S.C. §§ 1319(b) and 1321(b), 42 U.S.C. §§ 9609(c) and 9613(b), and 42 U.S.C. § 11045(c) (3). The Defendants reside in the District and the claims arose in the District.

3. Pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b); Section 3008(a)(2) of RCRA, 42 U.S.C. § 6928(a)(2); and Section 309(b) of the CWA, 33 U.S.C. § 1319(b), notice of the commencement of this action has been given to the Commonwealth.

4. The Complaints, as defined herein, state claims upon which relief may be granted against Westlake.

5. Westlake consents to and shall not challenge entry of this Consent Decree, nor shall Westlake challenge this Court's jurisdiction to enter, enforce, modify, or terminate this Consent Decree.

II. APPLICABILITY

6. The obligations of this Consent Decree apply to and are binding upon the United

States, the Commonwealth and upon Westlake and any successors, assigns, or other entities or persons otherwise bound by law. Unless a particular provision of this Consent Decree expressly only imposes obligations on Westlake Vinyls, Inc. alone or Westlake PVC Corporation alone, the obligations under this Consent Decree are joint and several.

7. No transfer of ownership or operation of any of the Facilities subject to this Consent Decree, whether in compliance with the procedures of this Paragraph or otherwise, shall relieve Westlake of its obligation to ensure that the terms of the Consent Decree are implemented. Before such transfer, if possible, but no later than the closing date of such sale or transfer, Westlake shall provide a copy of this Consent Decree to the proposed transferee and shall provide thirty (30) days written notice of the prospective transfer, together with a copy of the proposed written agreement, to EPA Region 4, EPA Headquarters, the Commonwealth of Kentucky, and the United States Department of Justice, in accordance with this Consent Decree. Any attempt to transfer ownership or operation of either of Westlake Facilities without complying with this Paragraph constitutes a violation of this Consent Decree. To the extent that the cooperation, permission or access from any other property owner, including Air Products and Chemicals, Inc., is necessary for the performance of any obligations of Westlake under this Consent Decree, Westlake shall obtain any such cooperation, permission or access prior to execution of this Consent Decree. In the event that Westlake becomes aware that it is necessary for Westlake to obtain the cooperation, permission or access from any other property owner as Westlake is performing the obligations under this Consent Decree, Westlake shall obtain any such cooperation, permission or access prior to the execution of this Consent Decree in compliance with Section IX (Access).

8. Westlake shall make available a copy of this Consent Decree to all officers, employees, and agents whose duties might reasonably include compliance with any provision of this Consent Decree, as well as to any contractor, other than contractors that only supply materials or equipment, retained to perform work required under this Consent Decree. Westlake shall condition any such contract upon performance of the work in conformity with the terms of this Consent Decree.

9. In any action to enforce this Consent Decree, Westlake shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree, unless such failure constitutes a Force Majeure event as defined by this Consent Decree.

III. DEFINITIONS

10. Except as otherwise provided in this Consent Decree, definitions for the terms presented herein shall be incorporated from the CAA, RCRA, EPCRA, CERCLA, and CWA, and their corresponding regulations. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

"Air Products" shall mean Air Products and Chemicals, Inc., the owner of a chemical manufacturing facility in Calvert City, Kentucky adjacent to the PVC Plant and the owner of the property on which the PVC Plant is operated.

"CA&O Plant" shall mean the ethylene and chlorine processing area of the Vinyls Plant.

"Consent Decree" shall mean this Decree and the appendices attached hereto. In the event of conflict between this Decree and any appendix, this Decree shall control.

"Corrective Measures" or "CM" shall mean those measures or actions necessary to

control, prevent, or mitigate the release or potential release of hazardous waste or hazardous constituents into the environment. The activities required for a CM are detailed in the CM Scope of Work included as Appendix A.

"Corrective Measures Implementation" or "CMI" shall mean those activities necessary to initiate, complete, monitor, and maintain the remedies the EPA may select to protect human health and/or the environment from the release or potential release of hazardous wastes, or hazardous constituents, into the environment. The activities required for the CMI are detailed in the CMI Scope of Work included as Appendix B.

"Corrective Measures Study" or "CMS" shall mean the investigation and evaluation of potential remedies, which will protect human health and/or the environment from the release of hazardous wastes, or hazardous constituents, into the environment from Lifts 4, 7, 8, and/or 9 as set forth herein. The activities required for the CMS are detailed in the CMS Scope of Work included as Appendix C.

"Data Quality Objectives" shall mean the qualitative or quantitative statements, the application of which is designed to ensure that data of known and appropriate quality are obtained.

"Day" shall mean a calendar day unless expressly stated to be a working day.

"Defendants" or "Westlake" shall mean Westlake Vinyls, Inc. and Westlake PVC Corporation.

"EDC" shall mean ethylene dichloride.

"Effective Date" shall mean the date of entry of this Consent Decree by the Court.

"EPA" shall mean the United States Environmental Protection Agency and any of its

successor departments or agencies.

"Facilities" shall mean the PVC Plant and the Vinyls Plant.

"Hazardous Constituents" shall mean those constituents listed in Appendix VIII to 40 C.F.R. Part 261 or any constituent identified in Appendix IX to 40 C.F.R. Part 264.

"Hazardous Waste" shall mean hazardous waste as defined in Section 1004(5) of RCRA or 40 C.F.R. § 260.10. This term includes hazardous constituents as defined above.

"HON" shall mean the Hazardous Organic NESHAP codified at 40 C.F.R. § 63, Subparts F, G, and H.

"Interest" shall mean the statutory rate applicable to judgments, 28 U.S.C. § 1961.

"Interim measures" or "IM" shall mean those actions, which can be initiated in advance of implementation of the final corrective action for a facility, to achieve the goal of stabilization. Interim Measures initiate cleanup at a facility and control or eliminate the release of hazardous wastes or hazardous constituents at or from the facility. Interim measures may be sufficient to constitute corrective measures. The activities required for the IM are detailed in the IM Scope of Work included as Appendix D.

"Kentucky" or "Commonwealth" shall mean the Commonwealth of Kentucky.

"Kentucky Complaint" shall mean the complaint filed by the Commonwealth of Kentucky in connection with its motion to intervene in the civil action filed by the United States.

"Kentucky Cabinet" shall mean the Commonwealth of Kentucky's Energy and Environment Cabinet.

"KDEP" shall mean Kentucky Department for Environmental Protection, a Department of the Kentucky Cabinet, including its divisions.

"KDAQ" shall mean the Kentucky Division for Air Quality, a division of KYDEP.

"Kentucky SIP" shall mean the State Implementation Plan for the Commonwealth of Kentucky approved by EPA pursuant to the CAA.

"LDAR" shall mean the Leak Detection and Repair requirements set forth in 40 C.F.R. §§ 61 and 63.

"NOV" shall mean the Notice of Violation in connection with EPA's multimedia inspections of the Westlake facilities on March 5-13, 2002, June 10-13, 2002, and February 23-26, 2004, pursuant to the EPA National Vinyl Chloride Initiative for compliance with RCRA, CAA, CWA, EPCRA, and CERCLA.

"NPDES Permit" shall mean the National Pollutant Discharge Elimination System (NPDES) permit number KY0003484, issued pursuant to the CWA for discharges from Westlake Vinyls Plant, as it may from time to time be amended or renewed.

"Oxy Incinerator" shall mean the incinerator that receives emissions from the oxychlorination reactors (also known as the absorber vent) and the product column at the Vinyls Plant.

"Oxy Absorber" shall mean the system that processes the vent streams from the A Oxychlorination Reactor, the B Oxychlorination Reactor, the No. 4 Oxychlorination Reactor and the Catoxid Reactor to recover EDC contained in the vent streams at the Vinyls Plant.

"Paragraph" shall mean a portion of this Consent Decree identified by an Arabic numeral or an upper case letter.

"Parties" shall mean the United States, the Commonwealth of Kentucky, and Defendants.

"Primary Incinerator" shall mean the incinerator that receives and treats vent streams from

the majority of the continuous process vents at the VCM Plant.

"PVC Plant" shall mean the polyvinyl chloride plant operated by Westlake PVC Corporation in Calvert City, Kentucky on property that is owned by Air Products, and is more fully described in Appendix E.

"Receptors" shall mean those humans, animals or plants and their habitats, which are or may be affected by releases of hazardous waste or hazardous constituents from or at the PVC Plant.

"RCRA Facility Investigation" or "RFI" shall mean the investigation and characterization of the source(s) of contamination and the nature, extent, direction, rate, movement, and concentration of the source(s) of contamination and releases of hazardous waste, including hazardous constituents that have been or are likely to be released into the environment from a facility. The activities required for the RFI are detailed in the RFI Scope of Work included as Appendix F.

"RCRA Corrective Measures Work" shall mean the work activities set forth in each CMS Report, including any necessary long term work, such as operation and maintenance and monitoring, any "Interim Measures/Stabilization" that may be required, the "Corrective Measures Implementation" under Section V (Compliance) including as required by the Scope of Works in Appendices A-I to perform the Corrective Measures and any Additional Work.

"Roll-off container" shall mean the waste containers that are located or used in connection with disposal of solid wastes containing benzene from the cracking furnaces in the Ethylene Plant and the Ethylene Wastewater Treatment system.

"Scope of Work" or "SOW" shall mean the outline or statement of work that Westlake

must use to develop all Workplans and reports required by this Consent Decree as set forth in this Consent Decree and its Appendices. All SOW Appendices and modifications or amendments thereto whether approved by EPA before the date of this Consent Decree, or approved by the Commonwealth on and after the date of this Consent Decree, shall be incorporated into this Consent Decree and shall be an enforceable part of this Consent Decree.

"Section" shall mean a portion of this Consent Decree identified by a Roman numeral.

"Solid Waste Management Unit" or "SWMU" shall mean any discernible unit at which solid wastes have been placed at any time irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area where solid wastes have been routinely and systematically released.

"SPCC Plans" shall mean the Spill Prevention, Control and Countermeasures Plans for Westlake PVC and Westlake Vinyls Plants in effect as of the date of lodging of this Consent Decree.

"SSMP" shall mean the Startup, Shutdown, and Malfunction Plan described in 40 C.F.R. § 63.6(e)(3) and incorporated into the HON.

"United States" shall mean the United States of America, acting on behalf of EPA.

"United States Complaint" shall mean the complaint filed by the United States, on behalf of EPA.

"United States and Kentucky Complaints" or "Complaints" shall mean the joint complaint filed by both the United States and the Commonwealth of Kentucky, or the complaints of each if filed separately.

"Vinyls Plant" or "VCM Plant" shall mean the vinyl chloride monomer processing plant

that is part of Westlake Vinyls, Inc., and which produces vinyl chloride monomer by thermal decomposition of 1,2 dichloroethane. The Vinyls Plant is divided into two basic plants: (1) the "EDC/VCM Units," where ethylene dichloride ("EDC") and vinyl chloride monomer ("VCM") are manufactured and (2) the "CA&O Plant," which is subdivided into the "Ethylene Plant" and the "Chlorine Plant."

"Working day" shall mean a day other than a Saturday, Sunday, or Commonwealth or Federal holiday. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or Commonwealth or Federal holiday, the period shall run until the close of business of the next working day.

"Workplan" shall mean the detailed plans prepared by Westlake to satisfy the requirements of the corresponding Scope of Work. The requirements for each Workplan are set forth in the Consent Decree and presented in Appendices A, B, C, D, E, F, G, H, and I.

IV. CIVIL PENALTY

11. Within thirty (30) days after the Effective Date of this Consent Decree, Westlake shall pay the total sum of \$800,000.00 as a civil penalty to the United States and the Commonwealth, as set forth below.

12. Westlake shall pay \$687,500.00 of the civil penalty to the United States, together with interest accruing from the date on which the Consent Decree is lodged with the Court, at the rate specified in 28 U.S.C. § 1961 as of the date of lodging by FedWire Electronic Funds Transfer ("EFT") to the U.S. Department of Justice in accordance with written instructions to be provided to Westlake, following lodging of the Consent Decree, by the Financial Litigation Unit of the U.S. Attorney's Office for the Western District of Kentucky. At the time of payment,

Westlake shall send a copy of the EFT authorization form and the EFT transaction record, together with a transmittal letter, which shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in United States, et al. v. Westlake Vinyls, et al., and shall reference the civil action number and DOJ case number 90-5-2-1-08097 to the United States in accordance with the Notices Section of this Consent Decree; by email to acctsreceivable.CINWD@epa.gov; and to:

EPA Cincinnati Finance Office
26 Martin Luther King Drive
Cincinnati, Ohio 45268

13. Westlake shall pay \$12,500.00 of the civil penalty pursuant to instructions received from the United States to the Oil Spill Liability Trust Fund pursuant to 33 U.S.C. § 1321(s), 4304 of Pub. L. No. 101-380, and 26 U.S.C. § 9509(b)(8). At the time of payment, Westlake shall send a copy of the EFT authorization form and the EFT transaction record, together with a transmittal letter, which shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in United States, et al. v. Westlake Vinyls, et al., and shall reference the civil action number and DOJ case number 90-5-2-1-08097 to the United States in accordance with Notices Section of this Consent Decree; by email to acctsreceivable.CINWD@epa.gov; and to:

EPA Cincinnati Finance Office
26 Martin Luther King Drive
Cincinnati, Ohio 45268

and to the United States and the Coast Guard.

14. Within thirty (30) days after the Effective Date, Westlake shall pay the sum of \$100,000.00 as a civil penalty to the Commonwealth, together with interest accruing from the

date on which the Consent Decree is lodged with the Court, at the rate specified in 28 U.S.C. § 1961 as of the date of lodging. Such payment shall be made by cashier's check, certified check, or money order, made payable to the Kentucky State Treasurer, and sent to: Director, Division of Enforcement, 300 Fair Oaks, Frankfort, Kentucky 40601, together with a transmittal letter, which shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in United States, et. al. v. Westlake Vinyls, et. al. and shall reference the civil action number of the Consent Decree.

15. Westlake shall not deduct any civil penalty paid under this Section in calculating its federal or state income tax.

V. COMPLIANCE REQUIREMENTS

16. Approval of Deliverables. All documents required to be submitted for approval under this Consent Decree shall be submitted to EPA and the Commonwealth pursuant to the Notices Section of this Consent Decree. After review of any Workplan, report, or other item that is required to be submitted pursuant to this Consent Decree to EPA for approval, EPA, after consultation with the Commonwealth, where appropriate, shall in writing: (a) approve the submission; (b) approve the submission upon specified conditions; (c) approve part of the submission and disapprove the remainder; or (d) disapprove the submission.

17. If the submission is approved pursuant to the above paragraph, Westlake shall take all actions required by the Workplan, report, or other document, in accordance with the schedules and requirements of the Workplan, report, or other document, as approved. If the submission is conditionally approved or approved only in part pursuant to the above paragraph, Westlake shall, upon written direction of EPA, after consultation with the Commonwealth where

appropriate, take all actions required by the approved Workplan, report, or other item that EPA, after consultation with the Commonwealth where appropriate, determines are technically severable from any disapproved portions, subject to Westlake's right to dispute only the specified conditions or the disapproved portions, under the Dispute Resolution provisions of this Consent Decree.

18. If the submission is disapproved in whole or in part, Westlake shall, within forty-five (45) days or such other time as the Parties agree to in writing, correct all deficiencies and resubmit the Workplan, report, or other item, or disapproved portion thereof, for approval, in accordance with the preceding Paragraphs. If the resubmission is approved in whole or in part, Westlake shall proceed in accordance with the preceding Paragraph.

19. Any stipulated penalties applicable to the original submission, as provided in the Stipulated Penalties provisions of this Consent Decree, shall accrue during the forty-five (45) day period or other specified period, but shall not be payable unless the resubmission is untimely or is disapproved in whole or in part; provided that if the original submission was so deficient as to constitute a material breach of Westlake's obligations under this Consent Decree, the stipulated penalties applicable to the original submission shall be due and payable notwithstanding any subsequent resubmission. Any determination by EPA that a resubmission is materially deficient is subject to Westlake's right to initiate dispute resolution under the Dispute Resolution provisions of this Consent Decree.

20. If a resubmitted Workplan, report, or other item, or portion thereof, is disapproved in whole or in part, EPA, after consultation with the Commonwealth where appropriate, may again require Westlake to correct any deficiencies, in accordance with the preceding Paragraphs,

or may itself correct any deficiencies, subject to Westlake's right to initiate dispute resolution under the Dispute Resolution provisions of this Consent Decree and the right of EPA and the Commonwealth to seek stipulated penalties as provided in the preceding Paragraphs.

21. Westlake's failure to complete or implement the requirements of Section V (Compliance Requirements) of this Consent Decree which are identified in Section X shall be subject to stipulated penalties pursuant to Section X (Stipulated Penalties) of this Consent Decree.

22. Compliance with Permits. Where any compliance obligation under this Section requires Westlake to obtain a federal, state, or local permit or approval, Westlake shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals. Westlake may seek relief under the Force Majeure Provisions of this Consent Decree for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if Westlake has submitted timely and complete applications and has taken all other actions necessary to obtain all such permits or approvals.

23. Proposed Contractor/Consultant. All work performed under RCRA, 42 U.S.C. § 6901 et seq., pursuant to this Consent Decree shall be under the direction and supervision of a professional engineer, hydrologist, geologist, or environmental scientist, with expertise in hazardous waste cleanup. Westlake's contractor or consultant shall have the technical expertise sufficient to adequately perform all aspects of the work for which it is responsible. Within fourteen (14) days of the Effective Date, Westlake shall notify EPA and the Commonwealth as required in Notices Section of this Consent Decree in writing of the name, title, and

qualifications of the engineer, hydrologist, geologist, or environmental scientist and of any contractors or consultants and their personnel to be used in carrying out the terms of this Consent Decree. EPA reserves the right to disapprove Westlake's contractor and/or consultant. If EPA disapproves a contractor or consultant, then Westlake must, within forty-five (45) days of receipt from EPA of written notice of disapproval, notify EPA, in writing, of the name, title, and qualifications of any replacement.

24. Additional Work. For all work performed pursuant to the RCRA Injunctive Relief provisions of this Consent Decree, EPA may determine, or Westlake may propose that certain tasks, including investigatory work, engineering evaluation, or procedure/methodology modifications, are necessary in addition to or in lieu of the tasks included in any EPA-approved Workplan, when such additional work is necessary to meet the requirements in the Consent Decree. EPA may determine that Westlake shall perform the additional work and EPA will specify in writing the basis for its determination that the additional work is necessary. Within sixty (60) days after the receipt of such determination, Westlake shall have the opportunity to meet or confer with EPA to discuss the additional work. If required by EPA, Westlake shall submit for EPA approval a Workplan for the additional work. Such Workplan shall be submitted within sixty (60) days of receipt of EPA's determination that additional work is necessary, or according to an alternative schedule established by EPA. Upon approval of a Workplan, Westlake shall implement it in accordance with the schedule and provisions contained therein. Any determination by EPA under this Paragraph shall be subject to review under the Dispute Resolution provisions of this Consent Decree.

CLEAN AIR ACT INJUNCTIVE RELIEF

25. Benzene Waste Operations NESAHP

a. Westlake Vinyls Plant Revised Benzene Reports. Within ninety (90) days after the Effective Date of this Consent Decree, Westlake shall review the most recent Total Annual Benzene (TAB) report submitted by the Vinyls Plant to EPA and the Commonwealth to determine if the TAB report is in compliance with the Benzene Waste Operations NESHAP, including the 6 Mg per year compliance option. Westlake shall submit its findings in a Benzene Waste Operations NESHAP Compliance Review and Verification Report ("BWON Compliance Review and Verification Report") for EPA review and approval pursuant to this Consent Decree. The BWON Compliance Review and Verification Report shall include the information set forth below. Westlake's BWON Compliance Review and Verification Report shall be deemed a TAB report for purposes of 40 C.F.R. Part 61 Subpart FF reporting to EPA.

b. BWON Compliance Review and Verification Report shall include, but not be limited to, the following information:

1. an identification of each waste stream that is required to be included in the Vinyls Plant's TAB report (e.g., tank water draws, other sample wastes, maintenance wastes, and turnaround wastes);

2. a review and identification of the calculations and/or measurements used to determine the flows of each waste stream for the purpose of ensuring the accuracy of the annual waste quantity for each waste stream;

3. an identification of the benzene concentration in each waste stream, including sampling for benzene concentration at no less than five (5) waste streams

performed according to the requirements of 40 C.F.R. § 61.355(c)(1) and (3);

4. an identification of whether or not the stream is controlled consistent with the requirements of 40 C.F.R. Part 61 Subpart FF; and

5. an identification of any existing noncompliance with the requirements of 40 C.F.R. Part 61 Subpart FF.

26.. Leak Detection and Elimination Plans Within thirty (30) days after the Effective Date, Westlake shall submit to EPA and the Commonwealth for review revised Leak Detection and Elimination Plans for the PVC Plant and for the Vinyls Plant. Each Leak Detection and Elimination Plan will consist of two sections, a Leak Detection Plan and an Area Monitoring Plan, which include the changes listed below.

a. PVC Plant

1. Leak Detection Plan. Westlake shall implement and comply with all the provisions of 40 C.F.R. Part 61 Subpart V for all required components in vinyl chloride service in the PVC Plant, the leak detection plan shall include, but not limited to, the following:

i. a description of the procedure for maintaining an accurate inventory of each of the components listed in 40 C.F.R. Part 61 Subpart V that are in vinyl chloride service;

ii. an inventory of all unsafe-to-monitor components in vinyl chloride service, with an explanation as to why they are unsafe-to-monitor and a written plan to monitor the components, or a statement that there are no such components;

iii. an inventory of all difficult-to-monitor components in vinyl chloride service, with an explanation as to why the components are difficult-to-monitor and a

written plan for monitoring the components, or a statement that there are no such components;

iv. an inventory of all pumps equipped with a dual mechanical seal system, and a description of how the barrier fluid system meets the requirements of 40 C.F.R. Part 61 Subpart V; and

v. a description of the procedure to ensure that as components are added to or removed from vinyl chloride service, Westlake shall amend the inventory of components accordingly, and retain records of such changes for five (5) years; and

2. Area Monitoring Plan. Westlake shall describe the vinyl chloride monitoring system for the PVC Plant in accordance with the vinyl chloride NESHAP, 40 C.F.R. § 61.65(b)(8)(i).

i. Within thirty (30) days of EPA's approval of the Area Monitoring Plans, Westlake shall operate and maintain the area monitors for vinyl chloride at the PVC Plant pursuant to the Area Monitoring Plans, as required under the vinyl chloride NESHAP, 40 C.F.R. Part 61 Subpart F, and shall maintain records of the monitoring as required by 40 C.F.R. § 61.65(b)(8)(i). The Area Monitoring Plan (which may be modified upon EPA approval) shall include a requirement that a leak detection technician use a hand held device to identify the leak location if an area monitor point:

a. has three consecutive readings above 5 ppm or one reading above 10 ppm on any area monitoring point, except for the area monitoring points located in the PVC Reactor Building (as of the Effective Date there are 21 such monitoring points); or

b. has three consecutive readings above 10 ppm or one

reading above 15 ppm on the area monitoring points associated with the PVC Reactor Building:

The 21 monitoring points for the PVC Reactor Building are: 6-4, 3-5, 6-2, 4-4, 3-4, 6-9, 3-6, and 4-6 located in the Reactor Building Third Floor, and 6-3, 4-2, 3-3, 6-1, 3-2, 4-3, 6-11, 3-1 located in the Reactor Building Second Floor; 3-7 in the Booster Compressor area; 6-5 and 6-6 in the Blowdown Tank Area Top Floor; and 6-7 and 6-8 in the Blowdown Tank Area Bottom Floor .

ii. Westlake shall review the monitoring records developed pursuant to subparagraph above at least one time per shift, and when an area monitoring alarm is sounded. The purpose of such review is to enable Westlake to detect releases from the process equipment at the PVC Plant, and to ensure that an employee is deployed to begin monitoring for the leak(s) in the process area within fifteen (15) minutes after an area monitor point has three consecutive readings above the specified threshold or one reading above the specified threshold, and to ensure that an attempt to repair all leaks in the process area is begun within sixty (60) minutes after identifying the source of the release (provided that the required repairs do not constitute a safety hazard), so as to prevent continuing releases from the process equipment. Westlake shall document its review of the monitoring records, the equipment repaired in response to such review, and the time period in which the repairs were made ("Monitoring Review Documentation"). Westlake shall incorporate this monitoring process into its LDAR program and maintain the Monitoring Review Documentation for the period of time required by the Leak Detection and Elimination Plan.

b. Vinyls Plant

1. Leak Detection Plan. Westlake shall implement and comply with all the requirements of 40 C.F.R. Part 63 Subpart H or Subpart UU, as applicable, for all

components in organic hazardous air pollutant (HAP) service, the leak detection plan should include, but not limited to, the following:

- i. a description of the procedure for maintaining an accurate inventory of each of the components listed in 40 C.F.R. Part 63 Subpart H, or Subpart UU, as applicable that are in organic HAP service;
- ii. an inventory of all the unsafe-to-monitor components in organic HAP service, with an explanation as to why they are unsafe-to-monitor and a written plan to monitor the components, or a statement that there are no such components;
- iii. an inventory of all the difficult-to-monitor components in organic HAP service, with an explanation as to why the components are difficult-to-monitor and a written plan for monitoring the components, or a statement that there are no such components;
- iv. an inventory of all pumps equipped with a dual mechanical seal system, and a description of how the barrier fluid system meets the requirements of 40 C.F.R. Part 63 Subpart H or Subpart UU, as applicable; and
- v. a description of the procedure to ensure that as components are added to or removed from organic HAP service, Westlake shall amend the inventory of components accordingly, and retain records of such changes for five (5) years.

2. Area Monitoring Plan. Westlake shall describe the vinyl chloride monitoring system for the Vinyls Plant in accordance with the vinyl chloride NESHAP, 40 C.F.R. § 61.65(b)(8)(i).

- i. Within thirty (30) days of EPA's approval of the Area Monitoring Plans, Westlake shall operate and maintain the area monitors for vinyl chloride at the

Vinyls Plant pursuant to the Area Monitoring Plans, as required under the vinyl chloride NESHAP, 40 C.F.R. Part 61 Subpart F, and shall maintain records of the monitoring as required by 40 C.F.R. § 61.65(b)(8)(i). The Area Monitoring Plan shall include a requirement that a leak detection operator use a hand held device to identify the leak location if an area monitor point has three consecutive readings above 5 ppm or one reading above 10 ppm. However Westlake may specify more stringent limits, lower limits, of three consecutive readings less than 5 ppm and one reading less than 10 ppm for certain process areas.

ii. Westlake shall review the monitoring records developed pursuant to subparagraph above at least one time per shift, and when an area monitoring alarm is sounded. The purpose of such review is to enable Westlake to detect releases from the process equipment at the Vinyls Plant, and to ensure that an employee is deployed to begin monitoring for the leak(s) in the process area within fifteen (15) minutes after an area monitor point has three consecutive readings above the specified threshold or one reading above the specified threshold, and to ensure that an attempt to repair all leaks in the process area is begun within sixty (60) minutes after identifying the source of the release (provided that the required repairs do not constitute a safety hazard), so as to prevent continuing releases from the process equipment. Westlake shall document its review of the monitoring records, the equipment repaired in response to such review, and the time period in which the repairs were made ("Monitoring Review Documentation"). Westlake shall incorporate this monitoring process into its LDAR program and maintain the Monitoring Review Documentation for the period of time required by the Leak Detection and Elimination Plan.

27. Enhanced LDAR Program at Westlake's Vinyl Plant and PVC Plant

For a period of three (3) years after the Effective Date, Westlake shall implement the enhanced LDAR program set forth below, unless other permit(s) or federal, state or local laws or regulations require Westlake to meet more stringent standards, including more frequent monitoring, at the Vinyls Plant and the PVC Plant. If more frequent monitoring is required by federal, state, or local regulations, Westlake shall comply with such obligations.

a. Written Enhanced LDAR Program. Within one hundred eighty (180) days after the Effective Date, Westlake shall submit to EPA and the Commonwealth for review and approval, pursuant to this Consent Decree, a written enhanced LDAR program for the Vinyls Plant and for the PVC Plant. Within thirty (30) days of EPA approval, Westlake shall implement the approved enhanced LDAR program. The written program shall include at a minimum:

1. an identification of all equipment at the PVC Plant that is in vinyl chloride service as required by 40 C.F.R. Part 61 Subpart V, and all equipment at the Vinyls Plant that is in organic HAP service required by 40 C.F.R. Part 63 Subpart H or Subpart UU, as applicable;
2. a set of leak rate goals that will be a target for achievement on each such equipment;
3. procedures for identifying leaking equipment within process units;
4. procedures for repairing and keeping track of leaking equipment;
5. procedures for identifying and including new equipment in the enhanced LDAR program; and
6. a designation of the personnel (employees or contractors) who will

perform the enhanced LDAR monitoring (referred to as the LDAR Personnel) and a designation of Westlake management personnel who will be responsible for overseeing the employees or contractors who will implement the enhanced LDAR program (referred to as the LDAR Manager(s)).

b. Training of Westlake Vinyls Plant and PVC Plant LDAR Personnel.

Within thirty (30) days of EPA's approval of the written enhanced LDAR program as outlined above and for the effective period of the enhanced LDAR program, those individuals identified as the LDAR Personnel and the LDAR Manager(s) shall undergo training sufficient to ensure compliance with the terms of the enhanced LDAR program. Thereafter, these individuals shall take annual LDAR training. All such training shall be documented by Westlake. For all other operations and maintenance personnel, including newly hired employees at the Facilities, Westlake shall provide and require completion of a LDAR training program that includes instruction on aspects of LDAR that are relevant to each person's duties within sixty (60) days of EPA's approval of the written enhanced LDAR program as outlined above. Westlake shall require all operations and maintenance personnel to take a LDAR "Refresher" training course annually. All training described in this subparagraph shall be documented by Westlake.

c. Monitoring Procedures: Method 21. Westlake shall use EPA Reference Method 21 for all enhanced LDAR monitoring at the PVC Plant and the Vinyls Plant as set forth below:

1. Westlake shall monitor all pumps regulated under 40 C.F.R. Part 63 at the Vinyls Plant and under 40 CFR Part 61 at the PVC Plant on a monthly basis; and
2. Westlake shall monitor all valves regulated under 40 C.F.R. Part

63 at the Vinyls Plant on a quarterly basis, and shall monitor all valves regulated under 40 C.F.R. Part 61 Subpart V at the PVC Plant on a quarterly basis.

d. Technician Review of LDAR Monitoring Data at the Vinyls Plant and PVC Plant. Within thirty (30) days of EPA's approval of the written enhanced LDAR program as outlined above, Westlake shall develop and implement a procedure that requires the technician who performed the Method 21 sampling required by the above subparagraph to review the recorded sampling data for any obvious inconsistencies between what the technician observed during the sampling and what is actually recorded before submitting the data to Westlake's LDAR Manager.

e. Staff Notification to Management of Leaks at the Vinyls Plant and the PVC Plant. Within thirty (30) days of EPA's approval of the written enhanced LDAR program as outlined above, Westlake shall implement a system whereby designated LDAR Personnel will be required to provide the designated Unit Supervisor at the PVC Plant and the Vinyls Plant with a report of all leaks during quarterly monitoring required by 40 C.F.R. Part 61 or Part 63.

f. Repairs. Westlake shall identify and report any "leak" for the listed valves and pumps during each relevant period as follows, with the understanding that the term "leak" shall mean the definition set forth in the applicable regulations unless otherwise defined in this Consent Decree:

1. valves at the EDC/VCM Unit at the Vinyls Plant that have a reading of greater than 200 ppm;
2. valves at the CA&O Ethylene Unit at the Vinyls Plant that have a reading of greater than 200 ppm;

3. valves at the PVC Plant that have a reading of greater than 500 ppm; and

4. pumps at the Vinyls Plant's CA&O Ethylene Unit, EDC/VCM Unit, and at the PVC Plant that have a reading greater than 500 ppm.

g. Westlake shall make a first attempt to repair the leaking valves and pumps that meet the above criteria within five (5) calendar days of identification of each. Within fifteen (15) days of identifying each leaking valve or pump that meets the above criteria, Westlake shall make final repairs to the leaks or place the component on the delay of repair list. Further, Westlake shall, remonitor all valves and pumps within sixty (60) minutes after final repairs to ensure the pumps and valves have been repaired and are no longer leaking.

h. Delay of Repair List. Before a staff level employee may place equipment on the delay for repair list, Westlake shall require a designated LDAR Manager to confirm that the valve or pump is eligible for inclusion on the delay of repair list by placing his/her initials on the list beside the valve or pump that is named on the delay for repair list. The designated LDAR Manager shall ensure that any valve or pump that is placed on the delay of repair list is placed in Westlake's regular LDAR monitoring. For valves, other than control valves, that are leaking at a rate of 500 ppm or greater, and which cannot be repaired using other techniques, Westlake shall use the "drill and tap" repair method for the leaking valve, before placing the valve on the delay of repair list, unless Westlake can demonstrate that there is a safety, mechanical, or major environmental concern posed by repairing the leak in that manner. If such valves are not repaired within fifteen (15) days by other means, Westlake shall make the first "drill and tap" repair attempt within fifteen (15) days after the leak was identified, and shall have thirty (30) days after

the leak was identified to complete the repair attempts. After two unsuccessful attempts to repair a leaking valve through the "drill and tap" method, Westlake may place the leaking valve on its delay of repair list.

i. Chronic Leakers. Westlake, shall replace, repack, or perform similarly effective repairs on all "chronic leaker" non control valves during the next process unit turnaround after the effective date of the Consent Decree. A component shall be classified as a "chronic leaker" if it leaks above 500 ppm twice in any consecutive four quarters, unless the component has not leaked in the twelve (12) consecutive quarters prior to the relevant process unit turnaround.

j. Valve Replacement. Westlake shall, during the next process unit turnaround after the effective date of the Consent Decree, replace all valves, other than control valves, that leak above the applicable leak threshold for any consecutive four (4) quarters, unless the component has not leaked in the twelve (12) consecutive quarters prior to the relevant process unit turnaround or unless it is specified on the delay of repair list described above.

k. Electronic Recordkeeping. Within thirty (30) days after the Effective Date of this Consent Decree, Westlake shall establish and maintain electronic database(s) for storing and reporting all LDAR data, and shall use electronic data loggers or otherwise assure that the data is logged into an electronic format to record all monitoring information. All monitoring and repair information shall be maintained in an electronic format until at least two years following termination of the Consent Decree. The data shall be compatible with MS Excel or Access.

l. Reports. In addition to submitting to EPA and the Commonwealth the report that is required by 40 C.F.R. §§ 63.182 and 63.1110, Westlake shall submit to EPA and

the Commonwealth quarterly progress reports detailing the implementation of the requirements of this written enhanced LDAR program. Quarterly reports shall begin within fifteen (15) days of the last quarter after the Effective Date of the Consent Decree and shall be submitted within fifteen (15) days of the end of each quarter thereafter. Westlake shall include in the reports:

1. a list of the process units monitored during the quarter;
2. the number of valves and pumps monitored in each process unit;
3. the number of valves and pumps found leaking;
4. the number of components not fixed within thirty (30) days or placed on the delay of repair list;
5. the number of first repair attempts not completed within the applicable deadline;
6. the number of difficult to monitor pieces of equipment monitored;
7. the number of drill and tap repair attempts not completed as required herein;
8. the number of chronic leaker valves not repaired;
9. a list of all equipment currently on the delay of repair list and the date each component was placed on the list;
10. certification of the implementation of procedures for review of data generated by LDAR technician that includes:
 - i. certification of the implementation of monitoring pursuant to Consent Decree leak definition levels and frequencies; and
 - ii. certification of the implementation of the delay of repair

and chronic leaker procedures.

m. Adding New Valves and Pumps. Within ninety (90) days after the Effective Date, Westlake shall establish a tracking program for maintenance records at both the PVC Plant and the Vinyls Plant (e.g., a Management of Change Program) to ensure that valves and pumps added to its facilities during maintenance and construction are integrated into the written enhanced LDAR program. Westlake shall incorporate these tracking systems into the LDAR Plan for each of the Facilities.

28. Enhanced Daily Monitoring of Cooling Towers and Repairing Leaks at Westlake Vinyls Plant. Within sixty (60) days of the Effective Date, Westlake shall begin to conduct enhanced daily monitoring of the cooling towers. The enhanced daily monitoring shall be conducted on the following four (4) cooling towers in the EDC/VCM Units in the Vinyls Plant: (1) the No. 3 Cooling Tower at the Energy & Environmental Plant (EPN 052); (2) the South Synthesis Cooling Tower at the Monomers Plant (EPN 457); (3) the East Cracking Cooling Tower at the Monomers Plant (EPN 458); and (4) the South Cracking Cooling Tower at the Monomers Plant (EPN 459).

a. Within sixty (60) days of the Effective Date, Westlake shall submit a protocol for conducting enhanced daily monitoring for the cooling towers to EPA and the Commonwealth. The protocol shall provide the following information:

1. detailed description of each cooling tower sampling location and block flow diagram identifying each location;

2. a copy of the daily monitoring log sheet that will be used to maintain the monitoring records. The log sheet shall have the following information:

- i. date, time and the location of each sample taken;
- ii. sample identification log-in numbers;
- iii. date, time and sample ID that the sample was analyzed and the method used;
- iv. the EDC and VC concentration results for each sample;
- v. the individual's initials who took and/or analyzed the sample; and
- vi. if a leak is detected, then Westlake shall record the quantified release and the type of pollutant.

3. A discussion of leaks.

- i. provide a leak definition for ethylene dichloride (EDC) or Vinyl chloride (VC).
- ii. upon confirmation of detected levels of VC or EDC, laboratory personnel shall communicate the information immediately to the Environmental Department and the production supervisor for the relevant cooling tower.
- iii. for leak determinations, Westlake shall assume that the concentration of EDC and VC in the supply is zero.
- iv. the laboratory shall also enter all sampling and analysis results into a database.
- v. Westlake shall repair all leaks in the cooling water system pursuant to 40 CFR Sec. 63.104(d)(1) within thirty (30) days after identifying a leak through the daily enhanced monitoring, and shall document the location of all leaks and repairs made.

b. Westlake shall perform the enhanced daily monitoring for a period of three (3) years from the Effective Date pursuant to an EPA approved method set forth in 40 CFR Part 136, Appendix A. Westlake shall also continue to perform its normal quarterly monitoring pursuant to 40 CFR Sec. 63.104.

29. Monitoring of Roll-Off Containers at Westlake Vinyls Plant. Westlake shall monitor air emissions from its roll-off containers semi-annually for a period of three (3) years commencing within thirty (30) days after the Effective Date. Westlake shall use the monitoring form attached hereto as Appendix H to record the monitoring results.

30. HON Notice of Compliance Status at Westlake Vinyls Plant. Within thirty (30) days after the Effective Date, Westlake shall update its Notice of Compliance Status, which shall include, but not limited to, the wastewater and heat exchange provisions of the HON, as they apply to the Vinyls Plant, and provide a copy to EPA and the Commonwealth.

31. New Source Review at the PVC Plant and the Vinyls Plant. As long as the PVC Plant and the Vinyls Plant are under Westlake's common control, Westlake shall not contest administratively or judicially a finding by the Commonwealth or any other permitting authority under the CAA that the Vinyls Plant and the PVC Plant are a "single source" for purposes of New Source Review ("NSR") and Prevention of Significant Deterioration ("PSD") permitting under the CAA or the Kentucky SIP. This provision applies only to any permit applications pending as of the lodging of this Consent Decree or submitted thereafter for purposes of NSR/PSD applicability determinations under the CAA.

32. Vinyls Plant SSMP Revision. Within thirty (30) days after the Effective Date, Westlake shall revise its SSMP, as defined herein, for the Vinyls Plant consistent with the criteria