

**UNITED STATES**  
**ENVIRONMENTAL PROTECTION AGENCY**  
**REGION III**

IN THE MATTER OF:

Chevron U.S.A. Inc.	)	ADMINISTRATIVE ORDER ON
2300 Windy Ridge Parkway	)	CONSENT
Suite 800	)	
Atlanta, Georgia 30339	)	
	)	
RESPONDENT	)	
	)	
	)	
	)	
5801 Riggs Road	)	
Chillum, Maryland	)	U.S. EPA Docket Number:
	)	RCRA-03-2008-0355TH
	)	
FACILITY	)	
	)	Proceeding under Section
	)	7003 of the Resource
	)	Conservation and Recovery
	)	Act, as amended, 42 U.S.C.
	)	§ 6973.

**ADMINISTRATIVE ORDER ON CONSENT**

The parties to this Administrative Order on Consent (Consent Order), the United States Environmental Protection Agency (EPA) and Chevron U.S.A. Inc. (Chevron or Respondent), collectively the Parties, having agreed to entry of this Consent Order, it is therefore ordered and agreed that:

**I. JURISDICTION**

A. This Consent Order is issued pursuant to the authority vested in the Administrator of EPA

by Section 7003 of the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984 (collectively referred to hereinafter as "RCRA"), 42 U.S.C. Section 6973. The authority vested in the Administrator has been delegated to the Regional Administrators by EPA Delegation No. 8-22-C dated March 20, 1985, and further delegated to the Director of the Waste and Chemicals Management Division on November 4, 2004.

B. On January 25, 1985, EPA granted the State of Maryland (Maryland) authorization to operate a state hazardous waste program in lieu of the federal program, pursuant to Section 3006(b) of RCRA, 42 U.S.C. § 6926(b) and has since approved revisions to that program. Maryland, however, does not have authority to enforce Section 7003 of RCRA, 42 U.S.C. § 6973. Maryland has been given notice of the issuance of this Consent Order pursuant to Section 7003(a) of RCRA, 42 U.S.C. § 6973(a). In addition, the District of Columbia (the District) has been given notice of the issuance of this Consent Order pursuant to Section 7003(a) of RCRA, 42 U.S.C. § 6973(a).

C. This Consent Order is issued to Respondent, the former owner and/or operator of a gasoline service station located at 5801 Riggs Road in Chillum, Prince George's County, Maryland, hereafter referred to as the "Facility" as defined further in Section IV.A.2. below. Respondent agrees to comply with this Consent Order and agrees not to contest EPA's jurisdiction to issue this Consent Order and to enforce its terms. Further, Respondent will not contest EPA's jurisdiction to: compel compliance with this Consent Order in any subsequent judicial enforcement proceeding; require Respondent's compliance with the terms of this Consent Order; or impose sanctions for violations of this Consent Order.

## **II. PARTIES BOUND**

A. This Consent Order shall apply to and be binding upon EPA, Respondent and its agents, successors and assigns.

B. No change in ownership of any property covered by this Consent Order, or in corporate or partnership status of Respondent, shall in any way alter, diminish, or otherwise affect Respondent's obligations and responsibilities under this Consent Order.

C. Respondent shall provide a copy of this Consent Order to all supervisory personnel, contractors, subcontractors, laboratories, and consultants retained to conduct or monitor any portion of the work performed pursuant to this Consent Order and shall do so within seven (7) calendar days of the effective date of this Consent Order or date of such retention, whichever is later. All contracts, agreements or other arrangements with such persons shall require such persons to conduct or monitor the work in accordance with the requirements of this Consent Order. Notwithstanding the terms of any such contract, agreement or arrangement, Respondent is responsible for complying with this

Consent Order and for ensuring that all such persons perform such work in accordance with this Consent Order.

D. In the event of any change in majority ownership or control of Chevron, Respondent shall notify EPA in writing of the nature of any such change no later than fifteen (15) calendar days after the effective date of such change. In the event of any change in ownership or operation of the Facility as defined in Section IV.A.2, below, Respondent shall notify EPA in writing within fifteen (15) calendar days after Respondent is notified of such change. In addition, Respondent shall provide a copy of this Consent Order to any successor to Respondent and/or to the Facility at least fifteen (15) calendar days prior to the effective date of such change. Nothing stated in this paragraph II.D shall relieve Respondent from complying with the terms and conditions of this Consent Order in the time and manner specified herein.

### **III. STATEMENT OF PURPOSE**

In entering into this Consent Order, the mutual objective of EPA and Respondent is to have Respondent implement the Corrective Measures selected by EPA in the Final Decision and Response to Comments (FDRTC) for the Facility in accordance with the terms and conditions set forth herein.

### **IV. EPA'S FINDINGS OF FACT**

A. EPA makes the following findings, to which Respondent neither admits nor denies:

1. Respondent is a California corporation doing business in the State of Maryland and is a "person" as defined in Section 1004(15) of RCRA, 42 U.S.C. § 6903(15).
2. Respondent formerly owned and operated a gasoline service station, the former Chevron Facility 122208, engaged in retailing automotive fuels, located at 5801 Riggs Road, Chillum, Maryland, 20783 (the Facility). The Facility occupies the eastern corner of the intersection of Eastern Avenue, N.E. and Riggs Road. The north side of the right-of-way of Eastern Avenue, N.E. represents the boundary between the District and Prince George's County, Maryland. The southern extent of the Facility abuts the District.
3. On or about 1954 Gulf Oil Corporation (Gulf) constructed a service station at the Facility. In 1984, Standard Oil Company of California merged with Gulf, and after restructuring, changed its name to Chevron. Chevron owned and operated the Facility as a service station until it was sold to an independent owner in 1993.
4. As part of its operations, Respondent stored gasoline in underground storage tanks (USTs) at the Facility.

5. In 1989, Chevron discovered the release of gasoline from USTs located at the Facility and the presence of gasoline product in the groundwater under the Facility.
6. In 1990, under oversight of the Maryland Department of the Environment (MDE), Chevron installed and began operating a skimmer system at the Facility to recover gasoline product from the groundwater. In 1994, the skimmer system was modified into a dual phase extraction system to recover gasoline product from both groundwater and soil vapor. In 2005, pursuant to interim measures requirements of the 2002 Order described in paragraph 8, below, Chevron upgraded the dual phase extraction system with new extraction wells, abandoned old non-effective extraction wells, and installed a new treatment system. Both the skimmer system and the dual phase extraction system, along with any modifications to those systems, are hereinafter collectively referred to as the groundwater remediation system.
7. In 2001, Chevron initiated an investigation to determine the extent of contamination and discovered that gasoline contaminated groundwater (gasoline plume) had migrated into the District affecting a residential neighborhood known as Lamond Riggs Park. During its investigation, Chevron analyzed groundwater, soil, and soil vapor samples for petroleum related constituents. Sampling results through July 2002 revealed the presence of benzene, toluene, ethyl benzene, xylene, methyl tertiary butyl ether (MTBE) and total petroleum hydrocarbons gasoline range organics (TPH GRO) in the groundwater and soil within certain areas of the Facility which exceed EPA and the District risk-based screening criteria.
8. In December 2002, EPA issued a unilateral Administrative (2002 Order), RCRA-03-2003-0006th, pursuant to Section 7003 of RCRA, 42 U.S.C. § 6973, to Chevron. The 2002 Order requires Chevron to perform interim measures to mitigate threats to human health and the environment; to perform a Site Investigation to determine the nature and extent of petroleum related contaminants in the groundwater; and to perform a Corrective Measure Study to evaluate alternatives for corrective action necessary to protect human health and the environment.
9. In accordance with the 2002 Order, Chevron collected and analyzed soil, soil vapor, indoor air and groundwater data. Based on data collected and analyzed through April 2008, EPA has determined that the primary human health concern associated with the contaminated groundwater under current conditions is vapor intrusion into residential basements located directly above the gasoline plume.
10. EPA has determined that releases of the petroleum-related constituents, benzene, toluene, ethylbenzene and xylene, MTBE, and TPH GRO, have contaminated the soil and groundwater at the Facility and may pose an imminent and substantial endangerment to human health and the environment.

11. On August 30, 2007, EPA published a notice of its Statement of Basis in which it proposed its remedy for the Facility. A sixty (60)-day period of public review and comment on the Statement of Basis was held from August 30, 2007 through October 29, 2007.
12. On April 4, 2008, EPA issued a Final Decision and Response to Comments (FDRTC) for the Facility, attached hereto as Attachment 1, and made a part hereof. In the FDRTC, EPA selected, as the final Corrective Measures for the Facility, the continuation of the groundwater remediation system in Area A; the expansion of the existing groundwater remediation system through angle wells in Area B; the installation of an independent remediation system in Area B; the installation of an oxygen injection curtain in Area C; the installation of vapor mitigation systems in homes impacted by subsurface vapor intrusion, and the implementation of institutional controls.
13. Notice of the issuance of the FDRTC for the Facility was distributed to the Washington D.C. metropolitan area media market on April 16, 2008.

#### **V. EPA'S CONCLUSIONS OF LAW AND DETERMINATIONS**

A. Based on the Findings of Fact set forth above, the Conclusions of Law set forth in this Section V, and upon EPA's review of information set forth in the Administrative Record which supports the issuance of this Consent Order, EPA has made the following determination, to which Respondent neither admits or denies:

1. Chevron is a "person" within the meaning of Section 1004(15) of RCRA, 42 U.S.C. § 6903(15).
2. Benzene, toluene, ethylbenzene, xylene, MTBE, and TPH GRO are in the soil and groundwater and are solid wastes as defined in Section 1004(27) of RCRA, U.S.C. Section 6903(27), and/or hazardous wastes as defined in Section 1004(5) of RCRA, 42 U.S.C. Section 6903(5), within the meaning of Section 7003 of RCRA, 42 U.S.C. § 6973.
3. Respondent has contributed to the handling, storage, and/or disposal of the solid wastes and/or hazardous wastes, namely, benzene, toluene, ethylbenzene, xylene, MTBE, and TPH GRO, which may present an imminent and substantial endangerment to public health or the environment.
4. The actions required by this Consent Order are necessary and appropriate to protect public health and the environment.

## **VI. WORK TO BE PERFORMED**

A. EPA acknowledges that Respondent may have completed some of the tasks required by this Consent Order and may have available some of the information and data required by this Consent Order. This previous work may be used to meet the requirements of this Consent Order, upon submission to and formal approval by EPA in a manner prescribed herein.

B. All work undertaken pursuant to this Consent Order shall be developed and performed, as appropriate and approved by EPA, in accordance with: the Scope of Work for Interim Measure(s) set forth in Attachment 2; the Scope of Work for a Corrective Measure Implementation Plan set forth in Attachment 3; the Scope of Work for Health and Safety Plan set forth in Attachment 4; RCRA, its implementing regulations and relevant EPA guidance documents.

C. All Scopes of Work and other Attachments to this Consent Order are incorporated herein by reference.

D. "Days" as used herein shall mean "calendar" days unless specified otherwise.

E. Pursuant to Section 7003 of RCRA, 42 U.S.C. Section 6973, Respondent agrees to and is hereby ordered to perform the following acts in the manner and by the dates specified herein:

### 1. INTERIM MEASURES (IM)

a. On and after the effective date of this Consent Order, Respondent shall continue to operate and maintain the groundwater remediation system as described in Section III, Final Remedy, of the FDRTC.

b. On and after the effective date of this Consent Order, Respondent shall operate the individual vapor mitigation systems in accordance with the EPA-approved Interim Measures Work Plan for Vapor Sampling and Mitigation at Residences.

c. Commencing on the Effective Date of this Consent Order and continuing thereafter, in the event Respondent identifies an immediate or potential threat to human health and/or the environment at or from the Facility, or discovers new releases of solid wastes or hazardous wastes at or from the Facility not previously identified, Respondent shall notify the EPA Project Coordinator orally within forty-eight (48) hours of such identification or discovery and notify EPA in writing within three (3) calendar days of discovery summarizing the nature and extent of such release and/or the immediacy and magnitude of the potential threat(s) to human health and/or the environment. Upon written request of EPA, Respondent shall submit to EPA an IM Work Plan in accordance with the IM Scope of Work, set forth in Attachment 2. If EPA determines that immediate

action is required, the EPA Project Coordinator may orally authorize Respondent to act prior to EPA's receipt of the IM Work Plan. Upon receipt of approval of the IM Work Plan, Respondent shall implement the EPA-approved Work Plan in accordance with the terms and conditions set forth herein.

d. Commencing on the Effective Date of this Consent Order and continuing thereafter, if EPA identifies an immediate or potential threat to human health and/or the environment at or from the Site, or discovers new releases of solid wastes, hazardous wastes and/or hazardous constituents at or from the Site not previously identified, EPA will notify Respondent in writing and provide Respondent with the opportunity to review any data relevant to EPA's notification, subject to claims of confidentiality and concerns regarding personal privacy and meet or confer with EPA to discuss the notification. Within thirty calendar (30) days of receiving EPA's written notification, Respondent shall submit to EPA an IM Work Plan in accordance with the IM Scope of Work, set forth in Attachment 2, that identifies interim measures which will mitigate the threat. If EPA determines that immediate action is required, the EPA Project Coordinator may require Respondent to act prior to Respondent's receipt of EPA's written approval or the opportunity to review data and meet or confer with EPA.

e. Each IM Work Plan required herein shall ensure that the interim measures are designed to mitigate immediate or potential threat(s) to human health and/or the environment, and should be consistent with the cleanup objectives of, and contribute to the performance of, any long-term remedy which may be required at the Site.

f. Each IM Work Plan required herein shall be prepared in accordance with the IM Scope of Work set forth in Attachment 2 and shall include the following sections as appropriate and approved by EPA: Interim Measures Objectives, Data Collection Quality Assurance, Data Management, Design Plans and Specifications, Operation and Maintenance, Project Schedule, Interim Measures Construction Quality Assurance, and Reporting Requirements.

g. Concurrent with submission of each IM Work Plan required herein, Respondent shall submit a new, or reference an EPA-accepted IM Health and Safety Plan, that is in accordance with the Health and Safety Plan Scope of Work set forth in Attachment 4.

## 2. CORRECTIVE MEASURE IMPLEMENTATION

a. The FDRTC for the Facility, appended hereto as Attachment 1, is incorporated into, and enforceable under, this Consent Order. The FDRTC is supported by an Administrative Record which contains the documents and information upon which EPA based its selection of Corrective Measures for the Facility.

b. Corrective Measures Work Plan and Design

(1) Within ninety (90) days of the effective date of this Consent Order, Respondent shall submit to EPA a Corrective Measures (CM) Implementation Work Plan for implementation of the Corrective Measures selected in the FDRTC. The CM Implementation Work Plan is subject to approval by EPA and shall be developed in accordance with Attachment 3 of this Consent Order.

(2) Respondent shall submit to EPA for approval a CM Design Plan in accordance with the project schedule contained in the EPA-approved CM Implementation Work Plan. The CM Design Plan shall be developed in accordance with Attachment 3 of this Consent Order.

c. Corrective Measure Construction

(1) Respondent shall commence and complete construction of the Corrective Measures selected in the RCRA FDRTC in accordance with the Scope of Work for the CM Implementation set forth in Attachment 3 of this Consent Order, the schedules and specifications set forth in the EPA-approved CM Implementation Work Plan and the EPA-approved CM Design Plan.

(2) Within thirty (30) calendar days of completion of construction of the Corrective Measures selected by EPA in the FDRTC, Respondent shall submit to EPA for approval a CM Construction Report. The CM Construction Report shall be developed in accordance with Attachment 3 of this Consent Order and shall describe activities performed during construction, provide actual specifications of the implemented Corrective Measures, and provide a preliminary assessment of CM performance.

(3) EPA shall determine, on the basis of the CM Construction Report and any other relevant information, whether the constructed projects are consistent with the EPA-approved CM Design Plan. If EPA determines that the constructed projects are consistent with the EPA-approved CM Design Plan and that the Corrective Measures have achieved or are achieving all of the requirements set forth in the FDRTC and the performance criteria established in the CM Design Plan, EPA shall approve the CM Construction Report.

(4) If EPA determines that the constructed projects are inconsistent with the EPA-approved CM Design Plan and/or that the Corrective Measures have not achieved or are not achieving all of the requirements set forth in the FDRTC and the performance criteria established in the CM Design Plan, EPA shall notify Respondent in writing of those activities that must be undertaken to complete the Corrective Measures requirements and shall set forth a schedule for the completion of those activities. Respondent shall complete the activities in accordance with the schedule set forth in the EPA notification.

#### d. Corrective Measures Assessment Reports

(1) Within ninety (90) days after approval of the CM Construction Report pursuant to paragraph VI.E.2.c.(3) or within ninety (90) days after completing the schedule of activities set forth in the EPA notification under paragraph VI.E.2.c(4), Respondent shall submit a CM Initial Assessment Report for EPA approval. The CM Initial Assessment Report shall include an evaluation of the groundwater remediation systems and vapor mitigation systems to confirm that these systems are functioning as designed.

(2) If based on the CM Initial Assessment Report or any other information, EPA determines that the Corrective Measures are not functioning as designed or otherwise will not meet the objectives of removing and containing all of the contaminated groundwater and effectively removing the contaminants from the subsurface to attain the media cleanup standards, EPA shall notify Respondent in writing of those activities that must be undertaken to meet the objectives of the Corrective Measures and shall set forth a schedule for the completion of those activities. Respondent shall complete the activities in accordance with the schedule set forth in the EPA notification.

(3) No later than five years after EPA approval of the CM Initial Assessment Report and every five (5) years thereafter until receipt of approval by EPA of a Certificate of Completion submitted pursuant to Section VI.E.2.d.(9) of this Consent Order, Respondent shall submit a CM Five-Year Assessment Report. Said Reports shall contain an evaluation of the past and projected future effectiveness of the Corrective Measures including the removal and containment of all of the contaminated groundwater; the removal of the contaminants from the subsurface to attain the media cleanup standards, and the effectiveness of any vapor mitigation systems installed in accordance with an EPA-approved Interim Measures Work Plan.

(4) Respondent may, as part of a CM Five-Year Assessment Report, request that EPA select, for the purposes of this Consent Order, an Alternative and/or Supplemental Corrective Measure(s).

(5) In the event EPA selects an Alternative and/or Supplemental Corrective Measure(s) either in response to a request by Respondent pursuant to paragraph VI.E.2.d.(4), immediately above, or on its own initiative, EPA may provide Respondent with a period of thirty (30) calendar days from the date Respondent receives written notice from EPA of the selection of an Alternative and/or Supplemental Corrective Measure(s) selected in the FDRTC within which to reach an agreement with EPA regarding performance of the Alternative and/or Supplemental Corrective Measure(s) in lieu of, or in addition to, the Corrective Measures. Any such agreement between EPA and Respondent shall be incorporated into and become enforceable under this Consent Order and Respondent shall implement the activities required under any such agreement in accordance with any schedule and provisions contained therein.

(6) Nothing in paragraph VI.E.2.d.(5), immediately above, shall limit EPA's authority to implement or require performance of Alternative and/or Supplemental Corrective Measure(s) or to take any other appropriate action under RCRA, 42 U.S.C. §§ 6901 et seq., the Comprehensive Environmental Response, Compensation and Liability Act, as amended, 42 U.S.C. §§ 9601 et seq. (CERCLA), or any other legal authority, including the issuance of a unilateral administrative order or the filing of a civil action.

(7) Upon receipt of EPA's approval of Respondent's request to discontinue all Corrective Measures, Respondent may discontinue such Corrective Measures except that Respondent shall continue to monitor the groundwater and provide semi-annual reports for a period of three (3) years after the Corrective Measures have been discontinued. Respondent shall submit the results of such semi-annual sampling with the CM Progress Reports in accordance with paragraph VI.E.3.c of this Consent Order.

(8) If at any time during the three (3) year groundwater monitoring period, referred to in paragraph VI.E.2.d.(7), immediately above, EPA determines that any solid wastes, hazardous constituents and/or hazardous wastes in the groundwater have increased above the media cleanup standards described in the FDRTC for such solid wastes, hazardous constituents and/or hazardous wastes, EPA may require resumption of the Corrective Measures pursuant to this Consent Order or may determine that Alternative and/or Supplemental Corrective Measures need to be initiated to achieve the media cleanup standards. EPA shall notify Respondent in writing of any such determination. Any decision by EPA to require Alternative and/or Supplemental Corrective Measures shall be made pursuant to applicable EPA regulations and guidance regarding selection of Corrective Measures and shall be implemented in accordance with this Consent Order.

(9) If after the three (3) year groundwater monitoring period, referred to above in paragraph VI.E.2.d.(7), the media cleanup standards described in the RCRA FDRTC for groundwater have been maintained, Respondent shall submit a Certification of Completion for all Corrective Measures to EPA for approval in accordance with Section VI.E.3.g of this Consent Order. The Certification of Completion shall provide documentation sufficient to support a determination that media cleanup standards have been maintained and include all available documentation supporting such a determination.

(10) Chevron is required to monitor any vapor mitigation system installed in accordance with the scope and schedule contained in an EPA-approved Work Plan. If Chevron believes on the basis of the monitoring results over three (3) consecutive years that the operation of any vapor mitigation system installed is no longer necessary to protect human health, Chevron may petition EPA in writing for a system shut-down. EPA will notify Chevron in writing of EPA's decision. If EPA approves Chevron's system shut-down petition, Chevron, at the discretion of the resident, may leave the system in place or remove it at no cost to the resident. If at the request of the resident,

Chevron leaves the system in place, Chevron will no longer be required under this Consent Order to operate, maintain and monitor the system.

e. Institutional Controls

(1) Commencing on the Effective Date of this Consent Order and thereafter, Respondent shall refrain from using the Facility, or such other property, in any manner that would interfere with or adversely affect the implementation, integrity, or protectiveness of the corrective measures selected by EPA in the FDRTC and/or interim measures which may be required under Section VI.E.1.c and/or d of this Consent Order.

(2) Within forty-five (45) days of the Effective Date of this Consent Order, Respondent shall submit to EPA for review and approval a notice to be placed on the deed to the Facility property which would notify successors in interest that Chevron entered into the Order requiring it to implement the corrective measures selected by EPA in the FDRTC for the Facility. Within fifteen (15) days of EPA's approval of the notice, Respondent shall execute and record the notice in the Recorder's Office of Prince George's County, Maryland and submit to EPA a certified copy of the original notice showing the clerk's recording stamps.

(3) Within forty-five (45) days of the Effective Date of this Consent Order, Respondent shall submit to EPA for review and approval a restrictive covenant between Chevron and each owners of property on which components of the groundwater remediation system are placed ensuring that (a) Chevron and its successors, contractors, and authorized representatives have the ability to implement, facilitate and/or monitor the corrective measures; (b) the property will be used only for purposes that are compatible with EPA's corrective measures; (c) the property will not be used in a manner that will pose a threat to public health or adversely affect the environment; (d) no new wells are installed at the property unless they are necessary to implement the corrective measures and (e) Chevron with EPA, the District Department of the Environment and MDE as its authorized representatives, has access to the property for purposes of carrying out the obligations under this Consent Order. Within fifteen (15) days of EPA's approval of a restrictive covenant, Respondent shall execute and record the restrictive covenant in the Recorder's Office of Prince George's County, Maryland and submit to EPA a certified copy of the restrictive covenant showing the clerk's recording stamps.

### 3. SUBMISSIONS/EPA APPROVAL/ADDITIONAL WORK

a. EPA will review Respondent's IM and CM Implementation Work Plans; CM Design Plan; CM Construction Reports, CM Initial Assessment Report; CM Five-Year Assessment Report; the documents to be submitted pursuant to paragraphs VI.E.2.e(2) and (3) above and any other documents submitted pursuant to Attachments 2 through 4 of this Consent Order ("Submissions") with the exception of CM Progress Reports, and will

notify Respondent in writing of EPA's approval or disapproval of each such Submission. In the event of EPA's disapproval, EPA shall specify in writing any deficiencies in the Submission. Such disapproval shall not be subject to the dispute resolution procedures of Section XVII, below.

b. Within thirty (30) calendar days of receipt of EPA's comments on the Submission, Respondent shall submit to EPA for approval a revised Submission, which responds to any comments received and/or corrects any deficiencies identified by EPA. In the event that EPA disapproves of the revised Submission, Respondent may invoke the dispute resolution procedures of Section XVII, below. In the event EPA disapproves the revised Submission, EPA reserves the right to revise such Submission and seek to recover from Respondent the costs thereof, in accordance with CERCLA and any other applicable law. Respondent reserves the right to defend against any such action brought by EPA. Any Submission approved or revised by EPA under this Consent Order shall be deemed incorporated into and made an enforceable part of this Consent Order.

c. Respondent shall provide EPA with semi-annual CM Progress Reports beginning the first day of the sixth full month following the effective date of this Consent Order, throughout the period that this Consent Order is effective. The CM Progress Reports shall contain the information required in the relevant Scope(s) of Work attached hereto.

d. Three (3) copies of all Submissions required by this Consent Order shall be hand-delivered or sent by Certified Mail, Return Receipt Requested, to the Project Coordinator designated pursuant to Section XIV, "PROJECT COORDINATORS," below.

e. All work performed pursuant to this Consent Order shall be under the direction and supervision of a professional engineer or geologist with expertise in hazardous waste site investigation. Within ten (10) calendar days after the effective date of this Consent Order, Respondent shall submit to EPA, in writing, the name, title, and qualifications of the engineer or geologist and of any contractors or subcontractors to be used in carrying out the terms of this Consent Order. Notwithstanding Respondent's selection of an engineer, geologist, contractor or subcontractor, nothing herein shall relieve Respondent of its obligation to comply with the terms and conditions of this Consent Order. EPA shall have the right to disapprove at any time the use of any professional engineer, geologist, contractor or subcontractor selected by Respondent. EPA's disapproval shall not be subject to review under Section XVII of this Consent Order ("DISPUTE RESOLUTION") or otherwise. Within fifteen (15) calendar days of receipt from EPA of written notice disapproving the use of any professional engineer, geologist, contractor or subcontractor, Respondent shall notify EPA, in writing, of the name, title and qualifications of the personnel who will replace the personnel disapproved by EPA. Respondent shall notify EPA within ten (10) days prior to changing voluntarily its engineer or geologist, and/or contractors or subcontractors to be used in carrying out the terms of this Consent Order, and shall submit to EPA in writing, the name, title, and qualifications of such person(s).

f. EPA may determine that certain tasks and deliverables require additional work. Any such tasks or deliverables may be in addition to or in lieu of the tasks and deliverables included in any EPA-approved Work Plan. If EPA receives data from an entity other than the Parties to this Consent Order, hereinafter "third party data," which suggest that additional work is necessary, EPA will notify Chevron, provide Chevron with the data, subject to claims of confidentiality and concerns regarding personal privacy, and provide Chevron with the opportunity to conduct verification sampling. If EPA determines in its sole discretion, based on data from the Parties to this Consent Order or on third party data, that additional work is necessary, EPA shall request, in writing, that Respondent perform the additional work and shall specify the reasons for EPA's determination that additional work is necessary. Within fifteen (15) calendar days after the receipt of such request, Respondent shall have the opportunity to meet or confer with EPA to discuss the additional work EPA has requested. In the event that Respondent agrees to perform the additional work, this Consent Order shall be modified in accordance with Section XXIV, "SUBSEQUENT MODIFICATION," below, and such work shall be performed in accordance with this Consent Order. In the event Respondent declines or fails to perform the additional work, EPA reserves the right to order Respondent to perform such additional work; to perform such additional work itself and to seek to recover from Respondent all costs of performing such additional work; and to disapprove of the IM or CM Implementation Work Plan and/or the CM Construction Reports. EPA shall provide Respondent and the public with notice and an opportunity to comment on any additional requirements that constitute a fundamental change to the remedy selected in the FDRTC.

g. Any reports, plans, specifications, schedules, other submissions and attachments required by this Consent Order are, upon written approval by EPA, incorporated into this Consent Order. Any noncompliance with such EPA-approved reports, plans, specifications, schedules, other submissions, and attachments shall be considered a violation of this Consent Order and shall subject Respondent to the stipulated penalty provisions included in Section XVI, "DELAY IN PERFORMANCE/STIPULATED PENALTIES."

## **VII. FINANCIAL RESPONSIBILITY**

A. Within thirty (30) calendar days after receipt of EPA approval of the Final CM Design Plan, Respondent shall submit to EPA for approval an assurance of its financial ability ("Financial Assurance") to meet the final cost estimate as set forth in the Final CM Design Plan for the Corrective Measures, including both capital and operation and maintenance costs ("Final Cost Estimate"). Respondent's Financial Assurance shall be in one (or a combination of) the following forms:

1. A surety bond guaranteeing performance of the Corrective Measures;

2. One or more letters of credit equaling the Final Cost Estimate;
3. A trust agreement establishing the trust fund equaling the Final Cost Estimate;
4. A demonstration that Respondent satisfies the requirements of the financial test set forth in paragraph B of this Section VII; or
5. A guarantee to perform the Corrective Measures by one or more parent corporations or subsidiaries, or by one or more unrelated corporations that have a substantial business relationship with Respondent, as set forth in paragraph C of this Section VII.

B. If Respondent seeks to demonstrate Financial Assurance through the financial test, as discussed in paragraph A.4. of this Section, it shall provide EPA with a letter from its chief financial officer supported by its most recent annual audited financial statements prepared in accordance with Generally Accepted Accounting Principles (“GAAP”) certifying that Respondent meets the following criteria:

1. Either a ratio of total liabilities to net worth of less than 1.5, or a ratio of the sum of net income plus depreciation, depletion and amortization, minus \$10 million, to total liabilities greater than 0.10;
2. Tangible net worth greater than the sum of the current closure, post closure care, corrective action cost estimate and any other environmental obligations covered by a financial test plus \$10 million; and
3. Assets located in the United States amounting to at least the sum of the current closure, post-closure care, corrective action cost estimate and any other environmental obligations covered by a financial test plus \$10 million.

C. If Respondent seeks to demonstrate Financial Assurance through a guarantee by a third party pursuant to paragraph A.5. of this Section VII, Respondent shall demonstrate that the guarantor satisfies the requirements of the financial test set forth in paragraph B of this Section VII.

D. The Final Cost Estimate shall be updated annually to take into account the rate of inflation. In the event the Corrective Measures described in the FDRTC are modified in accordance with the procedures set forth in this Consent Order, and such change in the Corrective Measures increases the cost of the expected duration of the CM implementation, the Respondent shall submit to EPA a revised Final Cost Estimate for the Corrective Measures no later than thirty (30) calendar days after its receipt of notification of such EPA determination. This revision shall reflect any changes in the total number of years to perform the corrective measure and any changes in the estimated costs for each year of the corrective measure.

E. If Respondent determines that at any time that it is unable, or reasonably expects that it

will be unable, to maintain the Financial Assurance provided pursuant to this Section, Respondent shall obtain and submit to EPA for approval one (or a combination of) the other forms of financial Assurance listed in paragraph A of this Section VII within thirty (30) calendar days of the earlier of (1) the event that causes such inability, or (2) receipt of information that gives rise to the reasonable expectation of such inability.

F. If EPA determines that at any time that the Financial Assurance provided pursuant to this Section VII is inadequate, Respondent shall, within thirty (30) calendar days of its receipt of notification of such determination, obtain and present to EPA for approval one (or a combination of) the other forms of Financial Assurance listed in paragraph A of this Section VII.

G. Respondent's inability to demonstrate financial ability to meet the Final Cost Estimate for the Corrective Measures shall not excuse performance of any activities required under this Consent Order.

### **VIII. QUALITY ASSURANCE**

A. Throughout all sample collection and analysis activities, Respondent shall use EPA-approved quality assurance, quality control, and chain-of-custody procedures, as specified in the EPA approved Work Plan. In addition, Respondent shall:

1. Ensure that the laboratories it uses for analyses perform such analyses according to the EPA methods included in "Test Methods for Evaluating Solid Waste" (SW-846, November 1986) or other methods deemed satisfactory to EPA. If methods other than EPA methods are to be used, Respondent shall submit all analytical protocols to be used for analyses to EPA for approval at least thirty (30) calendar days prior to the commencement of analyses and shall obtain EPA approval prior to the use of such analytical protocols.

2. Ensure that laboratories it uses for analyses participate in a quality assurance/quality control program equivalent to that which is followed by EPA. As part of such a program, and upon request by EPA, such laboratories shall perform analyses of samples provided by EPA to demonstrate the quality of the analytical data.

4. Inform the EPA Project Coordinator at least fourteen (14) calendar days in advance of any laboratory analysis regarding which laboratory will be used by Respondent and ensure that EPA personnel and EPA authorized representatives have reasonable access to the laboratories and personnel used for analysis.

## **IX. PUBLIC REVIEW OF ADMINISTRATIVE RECORD**

A. The Administrative Record supporting the issuance of this Consent Order and any decisions or determinations made by EPA pursuant to the Consent Order will be available for public review on Mondays through Fridays, from 9:00 a.m. to 5:00 p.m., by contacting the EPA Project Coordinator, Mr. Andrew Fan, at:

U.S. Environmental Protection Agency  
Region III (3WC31)  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

Telephone: 215-814-3426

The Administrative Record is also maintained at the following alternative location for public review:

Lamond Riggs Branch Library  
5401 South Dakota Avenue, N.E.  
Washington D.C. 20011

Telephone: 202-541-6255

The Index to the Administrative Record supporting the issuance of this Order is set forth in Attachment 5.

## **X. PUBLIC COMMENT**

A. Within thirty (30) calendar days of the date that EPA signs this Consent Order, EPA shall announce the availability of this Consent Order to the public for review and comment. EPA shall accept comments from the public for a period of thirty (30) calendar days after such announcement. If sufficient interest warrants, as determined by EPA, a public meeting will be held. At the end of the comment period, EPA shall review all comments received during the above-described thirty (30) day period and/or at such public meeting, and shall either:

1. determine that the Consent Order should be made effective in its present form in which case EPA shall so notify Respondent in writing and send Respondent a true and correct copy of this Consent Order executed by EPA. The Consent Order shall become effective on the date Respondent receives a true and correct copy of the fully executed Consent Order; or
2. determine that modification of the Consent Order is necessary, in which case EPA shall notify Respondent in writing as to the nature of all required changes. If Respondent

agrees to the modifications, the Consent Order shall be so modified and shall become effective upon the receipt by Respondent of a true and correct copy of the fully executed modified Consent Order.

B. In the event that the parties are unable to agree on modifications required by EPA as a result of public comment, this Consent Order shall be withdrawn by EPA. In such an event, EPA reserves the right to take such action as may be necessary to protect public health and the environment, including but not limited to, issuance of a subsequent order or civil action to Respondent or any other person in connection with the Facility under Section 7003 of RCRA.

#### **XI. ON-SITE AND OFF-SITE ACCESS**

A. As of the effective date of this Consent Order, Respondent 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 required by this Consent Order, or by any approved Work Plan prepared pursuant hereto, access to all property owned or controlled by Respondent 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 XI.C of this Consent Order.

B. To the extent that property wherein work required by this Consent Order must be undertaken is presently owned or controlled by parties other than the Respondent, the Respondent shall use its best efforts to obtain site access agreements from the present owners. Best efforts shall include, but not be limited to, agreement to reasonable conditions for access and/or the payment of reasonable fees. Such access agreements shall be finalized as soon as practicable but no later than thirty (30) calendar days after receiving EPA's written approval to proceed. Such agreements shall provide reasonable access for the Respondent 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 XI.C, 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 Respondent 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. Respondent shall reimburse the United States for all costs incurred in obtaining access, including, but not limited to, attorneys fees and the amount of any just compensation and costs incurred by EPA.

C. 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 required by this Consent Order, or by any EPA approved Work Plan prepared pursuant hereto, records,

operating logs and contracts related to the Facility; reviewing the progress of the Respondent in carrying out the terms of this Consent 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 Respondent. The Respondent 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.

D. Notwithstanding any provision of this Consent Order, EPA retains all of its access and information-gathering authorities and rights under RCRA and any other applicable statute and regulation.

## **XII. SAMPLING AND DATA/DOCUMENT AVAILABILITY**

A. Respondent shall submit to EPA the results of all sampling and/or tests or other data generated by, or on behalf of, Respondent in accordance with the requirements of this Consent Order and the Attachments appended hereto and incorporated herein.

B. Respondent shall notify EPA, in writing, at least fourteen (14) calendar days in advance of any field activities, including but not limited to, well drilling, installation of equipment, or sampling. At the request of EPA, Respondent shall provide or allow EPA or its authorized representatives to take split or duplicate samples of all samples collected by Respondent pursuant to this Consent Order. Nothing in this Consent Order shall limit or otherwise affect EPA's authority to collect samples pursuant to applicable law, including, but not limited to, RCRA and CERCLA.

C. Respondent may assert a business confidentiality claim covering all or part of any information submitted to EPA pursuant to this Consent Order in the manner described in 40 C.F.R. Section 2.203(b). Any assertion of confidentiality shall be adequately substantiated by Respondent when the assertion is made in accordance with 40 C.F.R. Section 2.204(e)(4). Information subject to a confidentiality claim shall be disclosed only to the extent allowed by, and in accordance with, the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such confidentiality claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA without further notice to Respondent. Respondent shall not assert any confidentiality claim with regard to any physical, sampling, monitoring, or analytical data.

D. If Respondent wishes to assert a privilege with regard to any document which EPA seeks to inspect or copy pursuant to this Consent Order, Respondent shall identify the document, the privilege claimed, and the basis therefor in writing. For the purposes of this Consent Order, privileged documents are those documents exempt from discovery from the United States in litigation under the Federal Rules of Civil Procedure. Respondent shall not assert a privilege with regard to analytical, sampling and monitoring data.

### **XIII. RECORD PRESERVATION**

A. Respondent agrees that it shall preserve, during the pendency of this Consent Order and for a minimum of at least six (6) years after its termination, all data, records and documents in its possession or in the possession of its divisions, officers, directors, employees, agents, contractors, successors, and assigns which relate in any way to this Consent Order or to hazardous waste management and/or disposal at the Facility. After six (6) years, Respondent shall make such records available to EPA, subject to Section XII. D. above, for inspection or shall provide copies of such records to EPA. Respondent shall notify EPA at least thirty (30) calendar days prior to the proposed destruction of any such records, and shall provide EPA with a reasonable opportunity to inspect, copy and/or take possession of any such records. Respondent shall not destroy any record to which EPA has requested access for inspection and/or copying until EPA has obtained such access or withdrawn its request for such access. Nothing in this Section XIII shall in any way limit the authority of EPA under Section 3007 of RCRA, 42 U.S.C. Section 6927, or any other access or information-gathering authority.

### **XIV. PROJECT COORDINATORS**

A. EPA hereby designates Andrew Fan as the EPA Project Coordinator. Respondent hereby designates Denise Dixon as its Project Coordinator. Respondent's legal counsel shall not serve as Respondent's Project Coordinator. Each Project Coordinator shall be responsible for overseeing the implementation of the Consent Order. The EPA Project Coordinator will be EPA's primary designated representative at the Facility. To the maximum extent possible, all communications between Respondent and EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Consent Order, shall be directed through the Project Coordinators.

B. Each party agrees to provide at least seven (7) calendar days written notice to the other party prior to changing Project Coordinators.

C. If EPA determines that conditions or activities at the Facility, whether or not in compliance with this Consent Order, have caused or may cause a release or threatened release of solid wastes, hazardous wastes, hazardous constituents, hazardous substances, pollutants or contaminants which threaten or may pose a threat to the public health or welfare or to the environment, EPA may direct that Respondent stop further implementation of this Consent Order for such period of time as may be needed to abate any such release or threatened release and/or to undertake any action which EPA determines is necessary to abate such release or threatened release.

D. The absence of the EPA Project Coordinator from the Facility shall not be cause for the delay or stoppage of work.

## **XV. NOTIFICATION**

A. Unless otherwise specified, reports, correspondence, approvals, disapprovals, notices, or other submissions relating to or required under this Consent Order shall be in writing and shall be sent as follows:

1. Three copies of all documents to be submitted to the EPA shall be sent to:

Mr. Andrew Fan  
U.S. EPA, Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

2. Documents to be submitted to Respondent shall be sent to:

Denise Dixon  
Project Manager  
Chevron Environmental Management Co.  
2300 Windy Ridge Parkway, Suite 575 South  
Atlanta, GA 30339

3. One copy of all documents to be submitted to EPA shall also be sent to:

Herbert M. Meade  
Administrator  
Oil Control Program  
Maryland Department of the Environment  
1800 Washington Boulevard  
Baltimore, MD 21230-1719

Bicky Corman, Esq.  
General Counsel  
District Department of the Environment  
51 N. St., N.E., 6<sup>th</sup> Floor  
Washington, D.C. 20002

B. Any notice, report, certification, data presentation, or other document submitted by Respondent pursuant to this Consent Order which discusses, describes, demonstrates, or supports any finding or makes any representation concerning Respondent's compliance or noncompliance with any requirement of this Consent Order shall be certified by a responsible corporate officer or a duly authorized representative of a responsible corporate officer. A "responsible corporate officer" means: (a) 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 (b) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding 25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. A person is a “duly authorized representative” only if: (1) the authorization is made in writing by a person described above; (2) the authorization specifies either an individual or position having responsibility for overall operation of the regulated facility or activity (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and (3) the written authorization is submitted to the Project Coordinator designated by EPA in Section XIV of this Consent Order.

C. The certification required by paragraph B, above, shall be in the following form:

I certify that the information contained in or accompanying this **[type of submission]** is true, accurate, and complete.

As to [the/those identified portion(s)] of this **[type of submission]** for which I cannot personally verify **[its/their]** accuracy, I certify under penalty of law that this **[type of submission]** and all attachments were prepared in accordance with procedures 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, or the immediate supervisor of such person(s), 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 fines and imprisonment for knowing violations.

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

#### **XVI. DELAY IN PERFORMANCE/STIPULATED PENALTIES**

A. Unless there has been a written modification of a compliance date by EPA, or EPA has determined that there is an excusable delay caused by a force majeure event as defined below in Section XVIII, in the event that Respondent fails to comply with any requirement set forth in this Consent Order, Respondent shall pay stipulated penalties, as set forth below, upon receipt of written demand by EPA. Compliance by Respondent shall include commencement or completion, as appropriate, of any activity, plan, study or report required by this Consent Order

in an acceptable manner and within the specified time schedules in and approved under this Consent Order. Stipulated penalties shall accrue as follows:

1. For failure to commence, perform or complete work as prescribed in this Consent Order: \$1,000 per day for one to seven days or part thereof of noncompliance, and \$3,000 per day for each day of noncompliance, or part thereof, thereafter;
2. For failure to submit any draft or final Work Plan, plans, or reports as required by this Consent Order: \$750 per day for one to seven days or part thereof of noncompliance, and \$1,500 per day for each day of noncompliance, or part thereof, thereafter;
3. For failure to submit CM Progress Reports as required by this Consent Order: \$500 per day for one to seven days or part thereof of noncompliance, and \$1,000 per day for each day of noncompliance, or part thereof, thereafter;
4. For failure to submit other deliverables as required by this Consent Order: \$500 per day for one to seven days or part thereof of noncompliance, and \$1,000 per day for each day of noncompliance, or part thereof, thereafter;
5. For any failure to comply with the provisions of this Consent Order after receipt of notice of noncompliance by EPA: \$500 per day for one to seven days or part thereof of noncompliance, and \$1,000 per day for each day of noncompliance, or part thereof, thereafter, in addition to any stipulated penalties imposed for the underlying noncompliance;
6. For any failure to comply with this Consent Order not described in subparagraphs 1 through 5, above: \$500 per day for one to seven days or part thereof of noncompliance, and \$1,000 per day for each day of noncompliance, or part thereof, thereafter.

B. All penalties shall begin to accrue on the date that complete performance is due or a violation occurs, and shall continue to accrue through the final day of or correction of the violation. Nothing herein shall prevent the simultaneous accrual of separate stipulated penalties for separate violations of this Consent Order.

C. All penalties owed to EPA under this Section XVI shall be due within thirty (30) calendar days of receipt of a demand for payment unless Respondent invokes the dispute resolution procedures under Section XVII, below. Such notification shall describe the noncompliance and shall indicate the amount of penalties due. Interest shall begin to accrue on the unpaid balance at the end of the thirty (30) calendar day period and shall accrue at the Treasury tax and loan account rate.

D. All penalty payments shall be made by certified or cashier's check payable to the Treasurer of the United States of America and shall be remitted to:

Regional Hearing Clerk  
U.S. Environmental Protection Agency  
Region III  
P.O. Box 360515  
Pittsburgh, Pennsylvania 15251-6515

All payments shall reference the name of the Facility, Respondent's name and address, and the EPA Docket Number of this Consent Order. Copies of the transmittal of payment shall be sent simultaneously to the EPA Project Coordinator at the address specified in Section XV of this Consent Order and the Regional Hearing Clerk (3RC00), U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103-2029.

E. Respondent may dispute EPA's demand for payment of stipulated penalties for any alleged violation of this Consent Order by invoking the dispute resolution procedures below under Section XVII. Stipulated penalties shall continue to accrue, but need not be paid, for any alleged noncompliance which is the subject of dispute resolution during the period of such dispute resolution. To the extent that Respondent does not prevail upon resolution of the dispute, Respondent shall remit to EPA within seven (7) calendar days of receipt of such resolution any outstanding penalty payment, including any accrued interest, in the manner described above in paragraph D of this Section. To the extent Respondent prevails upon resolution of the dispute, no penalties shall be payable.

F. Neither the filing of a petition to resolve a dispute nor the payment of penalties shall alter in any way Respondent's obligation to comply with the requirements of this Consent Order.

G. The stipulated penalties set forth in this Section XVI shall not preclude EPA from pursuing any other remedies or sanctions which may be available to EPA by reason of Respondent's failure to comply with any of the requirements of this Consent Order.

## **XVII. DISPUTE RESOLUTION**

A. If Respondent disagrees, in whole or in part, with any EPA disapproval, modification or other decision or directive made by EPA pursuant to this Consent Order, Respondent shall notify EPA in writing of its objections, and the basis therefor, within fourteen (14) calendar days of receipt of EPA's disapproval, decision or directive. Such notice shall set forth the specific points of the dispute, the position which Respondent asserts should be adopted as consistent with the requirements of this Consent Order, the basis for Respondent's position, and any matters which it considers necessary for EPA's determination. EPA and Respondent shall have an additional

fourteen (14) calendar days from the receipt by EPA of the notification of objection, during which time representatives of EPA and Respondent may confer in person or by telephone to resolve any disagreement. If an agreement is reached, the resolution shall be written and signed by an authorized representative of each party. In the event that resolution is not reached within this fourteen (14) calendar day period, EPA will furnish to Respondent, in writing, its decision on the pending dispute.

B. In the event that the parties cannot resolve a dispute under the informal procedures set forth in the preceding paragraph XVII.A, within fourteen (14) calendar days after its receipt of EPA's Decision as set forth in paragraph XVII.A, immediately above, Respondent must submit to EPA a written statement of its position ("Statement of Position") on the matter in dispute, including but not limited to, any factual data analysis or opinion supporting that position and any supporting documentation relied upon by Respondent. Within fourteen (14) calendar days after receipt of Respondent's Statement of Position, EPA will serve upon Respondent its Statement of Position. If the Parties are unable to reach an agreement after an additional ten (10) calendar days, the dispute will be referred to the Director of the Waste and Chemicals Management Division, EPA Region III, who will issue a decision resolving the dispute based upon the entire Administrative Record, including Respondent and EPA's Statement of Positions.

C. The invocation of formal dispute resolution procedures under this Section shall not extend, postpone or affect in any way any obligation of Respondent under this Consent Order, not directly in dispute, unless EPA determines otherwise. Stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of this Consent Order. In the event that Respondent does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XVI.

D. Notwithstanding any other provisions of this Consent Order, no action or decision by EPA, including, without limitation, decisions of the Director of the Waste Chemicals Management Division, Region III, pursuant to this Consent Order, shall constitute final agency action giving rise to any right to judicial review prior to EPA's initiation of judicial action to compel Respondent's compliance with this Consent Order.

#### **XVIII. FORCE MAJEURE AND EXCUSABLE DELAY**

A. Respondent shall perform the requirements of this Consent Order in the manner and within the time limits set forth herein, unless the performance is prevented or delayed by events which constitute a force majeure. Respondent shall have the burden of proving such a force majeure. A force majeure is defined as any event arising from causes not reasonably foreseeable and beyond the control of Respondent, which cannot be overcome by due diligence and which delays or prevents performance in the manner or by a date required by this Consent Order. Such events do not include increased costs of performance, changed economic circumstances,

reasonably foreseeable weather conditions or weather conditions which could have been overcome by due diligence. A failure to obtain federal, state, or local permits may be considered a force majeure if Respondent has made timely and complete applications thereof and has exercised reasonable care to obtain such permit(s).

B. Respondent shall notify EPA, in writing, within seven (7) calendar days after it becomes or should have become aware of any event which Respondent claims constitutes a force majeure. Such notice shall estimate the anticipated length of delay, including necessary demobilization and remobilization, its cause, measures taken or to be taken to prevent or minimize the delay, and an estimated timetable for implementation of these measures. Failure to comply with the notice provision of this Section XVIII shall constitute a waiver of Respondent's right to assert a force majeure claim with respect to such event. In addition to the above notification requirements, Respondent shall undertake all reasonable actions to prevent or to minimize any delay in achieving compliance with any requirement of this Consent Order after it becomes or should have become aware of any event which may delay such compliance.

C. If EPA determines that there is excusable delay because the failure to comply or delay has been or will be caused by a force majeure, the time for performance of that requirement of this Consent Order may be extended, upon EPA approval, for a period equal to the delay resulting from such force majeure. This shall be accomplished through an amendment to this Consent Order pursuant to Section XXIV. Such an extension shall not alter the schedule for performance or completion of any other tasks required by this Consent Order, unless these tasks are also specifically altered by amendment of the Consent Order. In the event that EPA and Respondent cannot agree that any delay or failure has been or will be caused by a force majeure, or if there is no agreement on the length of the extension, Respondent may invoke the dispute resolution procedures set forth in Section XVII.

D. A failure by Respondent to secure access to property not within Respondent's ownership or control after Respondent has demonstrated to EPA's satisfaction that it has exercised good faith efforts to secure such access as required under Section XI, "On-Site and Off-Site Access," shall be excused, and no penalty shall be due from or payable by Respondent for such failure.

## **XIX. RESERVATION OF RIGHTS**

A. EPA expressly reserves all rights and defenses that it may have, including the right both to disapprove of work performed by Respondent pursuant to this Consent Order, to require that Respondent correct and/or reperform any work disapproved by EPA, and to request that Respondent perform tasks in addition to those stated in the Scope(s) of Work, Work Plan(s), or this Consent Order.

B. EPA hereby reserves all of its statutory and regulatory powers, authorities, rights and remedies, both legal and equitable, including any which may pertain to Respondent's failure to comply with any of the requirements of this Consent Order. This Consent Order shall not be

construed as a covenant not to sue, or as a release, waiver or limitation of any rights, remedies, powers and/or authorities, civil or criminal, which EPA has under RCRA, CERCLA, or any other statutory, regulatory or common law authority.

C. Compliance by Respondent with the terms of this Consent Order shall not relieve Respondent of its obligations to comply with RCRA or any other applicable local, state, or federal laws and regulations.

D. The signing of this Consent Order and Respondent's consent to comply shall not limit or otherwise preclude EPA from taking additional enforcement action pursuant to Section 7003 of RCRA, 42 U.S.C. Section 6973, or any other authority, should EPA determine that such action is warranted.

E. This Consent Order is not intended to be, nor shall it be construed as, a permit. This Consent Order does not relieve Respondent of any obligation to obtain and comply with any local, state, or federal permit or approval.

F. EPA reserves the right to perform any portion of the work consented to herein or any additional site characterization, feasibility study, and response/corrective actions it deems necessary to protect public health or welfare or the environment. EPA may exercise its authority under RCRA, CERCLA or any other authority to undertake or require the performance of response actions at any time. EPA reserves the right to seek reimbursement from Respondent for costs incurred by the United States in connection with any such response actions. Notwithstanding compliance with the terms of this Consent Order, Respondent is not released from liability, if any, for the costs of any response actions taken by EPA.

G. EPA reserves whatever rights it may have under CERCLA or any other law, or in equity, to recover from Respondent any costs incurred by EPA in overseeing the implementation of this Consent Order.

H. Respondent and EPA agree that neither this Consent Order nor any action under this Consent Order shall constitute, with respect to either party, an admission or a basis for establishing liability beyond the express terms of this Consent Order under any statute, regulation, ordinance, or common law or equitable theory, subject to the paragraphs XIX. A.-G. and II.C., above.

## **XX. OTHER CLAIMS**

Nothing in this Consent 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, or other entity for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any solid

waste, hazardous constituents, hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or taken from the Facility.

#### **XXI. OTHER APPLICABLE LAWS**

All actions required to be taken pursuant to this Consent Order shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations. Respondent shall obtain or require its authorized representatives to obtain all permits and approvals necessary under such laws and regulations.

#### **XXII. INDEMNIFICATION OF THE UNITED STATES GOVERNMENT**

Respondent agrees to indemnify and save and hold harmless the United States Government, its agencies, departments, agents, and employees, from any and all claims or causes of action arising from or on account of acts or omissions of Respondent or its agents, independent contractors, receivers, trustees, and assigns in carrying out activities required by this Consent Order. This indemnification shall not be construed in any way as affecting or limiting the rights or obligations of Respondent or the United States under their various contracts. The United States shall not be deemed to be a party to any contract entered into by Respondent for the purpose of carrying out any activities required by this Consent Order.

#### **XXIII. NOTICE OF NON-LIABILITY OF EPA**

EPA shall not be deemed a party to any contract involving Respondent and relating to activities at the Facility and shall not be liable for any claim or cause of action arising from or on account of any act, or the omission of Respondent, its officers, employees, contractors, receivers, trustees, agents or assigns, in carrying out the activities required by this Consent Order.

#### **XXIV. SUBSEQUENT MODIFICATION**

A. Except as provided in paragraph C of this Section XXIV, below, this Consent Order may be amended only by mutual agreement of EPA and Respondent. Any such amendment shall be in writing, shall be signed by an authorized representative of each party, shall have as its effective date the date on which it is signed by EPA, and shall be incorporated into this Consent Order.

B. Minor modifications in the studies, techniques, procedures, designs or schedules utilized in carrying out this Consent Order and necessary for the completion of the project may be made by written agreement of the Project Coordinators. Such modifications shall have as an effective date the date on which the agreement is signed by the EPA Project Coordinator.

C.No informal advice, guidance, suggestions, or comments by EPA regarding reports, plans, specifications, schedules, and any other writing submitted by Respondent shall be construed as relieving Respondent of its obligation to obtain written approval, if and when required by this Consent Order.

#### **XXV. SEVERABILITY**

If any provision or authority of this Consent Order or the application of this Consent Order to any party or circumstance is held by any judicial or administrative authority to be invalid, the application of such provision to other parties or circumstances and the remainder of this Consent Order shall not be affected thereby and shall remain in full force.

#### **XXVI. TERMINATION AND SATISFACTION**

The provisions of this Consent Order shall be deemed satisfied upon Respondent's receipt of written notice from EPA that Respondent has demonstrated, to the satisfaction of EPA, that the terms of this Consent Order, including any additional tasks determined by EPA to be required pursuant to this Consent Order, have been satisfactorily completed. This notice shall not, however, terminate Respondent's obligation to comply with any continuing obligations hereunder including, but not limited to, Sections XIII ("RECORD PRESERVATION"), XIX ("RESERVATION OF RIGHTS"), XX ("OTHER CLAIMS"), XXI ("OTHER APPLICABLE LAWS"), and XXII ("INDEMNIFICATION OF THE UNITED STATES GOVERNMENT").

#### **XXVII. ATTORNEY FEES**

The Respondent shall bear its own costs and attorney fees.

**XXVIII. EFFECTIVE DATE**

The effective date of this Consent Order shall be the date on which Respondent receives a true and correct copy of the fully executed Consent Order or a true and correct copy of the fully executed modified Consent Order as provided in Section X.

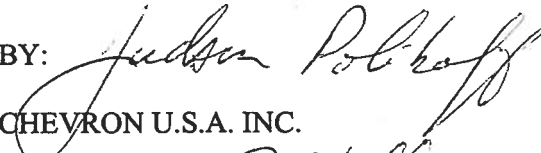
IT IS SO AGREED AND ORDERED:

DATE: 7/10/08

BY: 

ABRAHAM FERDAS  
DIRECTOR OF THE WASTE AND  
CHEMICALS MANAGEMENT DIVISION  
UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY, REGION III

DATE: June 30, 2008

BY:   
CHEVRON U.S.A. INC.  
Judson Polikoff  
Assistant Secretary

## Attachment 1

### Final Decision and Response to Comments

## Attachment 2

### Interim Measures Scope of Work

## **INTERIM MEASURES SCOPE OF WORK**

### **PURPOSE**

The purpose of Interim Measures are to identify and correct any actual or potential releases of solid waste, hazardous waste or hazardous constituents from regulated units, solid waste management units, and other sources or areas at the facility which may present an endangerment to human health or the environment. Interim Measures shall also be used whenever possible to achieve the initial goals of controlling the migration of contaminated groundwater and controlling current human and ecological exposure to contaminated media.

### **SCOPE**

The Interim Measures consist of several tasks. The level of detail EPA will require in Interim Measures submittals is dependent upon the proposed activities and site conditions.

#### **TASK I: INTERIM MEASURES WORKPLAN**

- A. Interim Measures Objectives
- B. Community Relations Plan

#### **TASK II: INTERIM MEASURES INVESTIGATIVE PROGRAM**

- A. Data Collection Quality Assurance Plan
- B. Data Management Plan

#### **TASK III: INTERIM MEASURES DESIGN PROGRAM**

- A. Design Plans and Specifications
- B. Operation and Maintenance Plan
- C. Project Schedule
- D. Final Design Documents

#### **TASK IV. INTERIM MEASURES CONSTRUCTION QUALITY ASSURANCE PLAN**

- A. Construction Quality Assurance Objectives
- B. Inspection Activities
- C. Sampling Requirements
- D. Documentation

**TASK V. REPORTS**

- A. Interim Measures Workplan
- B. Interim Measures Report

**TASK I: INTERIM MEASURES WORKPLAN**

Respondent shall prepare an Interim Measures Workplan. The workplan shall include the following:

**A. Interim Measures Objectives**

The workplan shall specify the objectives of the interim measures, demonstrate how the interim measures will abate releases and threatened releases, and, to the extent possible, be consistent and integrated with any long term solution at the facility. The Interim Measures Workplan will include:

1. a discussion of the overall management approach;
2. a discussion of the technical approach;
3. a schedule;
4. a description of qualifications of personnel performing or directing the interim measures, including contractor personnel.

**B. Community Relations Plan**

Respondent shall prepare a plan for the dissemination of information to the public regarding interim measure activities and results. These activities shall include the preparation and distribution of fact sheets and participation in public meetings.

**TASK II: INTERIM MEASURES INVESTIGATION PROGRAM****A. Data Collection Quality Assurance Plan**

If Respondent has not yet submitted a Quality Assurance Project Plan (“QAPP”) pursuant to the RFI, Attachment B, Task II, or if EPA determines that the RFI QAPP is not applicable to the Interim Measures, EPA may require Respondent to submit a Data Collection Quality Project Plan in accordance with Attachment B, Task II.B.

**B. Data Management Plan**

If Respondent has not yet submitted a Data Management Plan pursuant to the RFI, Attachment B, Task II, or if EPA determines that the Data Management Plan is not applicable to the Interim Measures, EPA may require Respondent to submit a Data Management Plan in accordance with Attachment B, Task II.C.

### **TASK III: INTERIM MEASURES DESIGN PROGRAM**

#### **A. Design Plans and Specifications**

For some Interim Measures, EPA will require Respondent to develop clear and comprehensive design plans and specifications which include, but are not limited to, the following:

1. Discussion of the design strategy and the design basis.
  - a. short and long-term objectives
  - b. methods to measure achievement of objectives
2. Discussion of the key technical factors including:
  - a. specific design features to meet short- and long-term objectives
  - b. proper management of any hazardous materials
  - c. confirmatory sampling and/or monitoring to assess effectiveness in meeting short- and long-term objectives
3. Description of assumptions made and detailed justification of these assumptions;
4. Detailed drawings of the proposed design

#### **B. Operation and Maintenance Plan**

Respondent shall prepare an Operation and Maintenance Plan to cover both implementation and long term maintenance of the interim measure(s). The Operation and Maintenance Plan shall be submitted with the Final Design Documents and shall be composed of the following types of elements:

1. Equipment start-up and operator training:

Respondent shall prepare, and include in the technical specifications governing treatment systems, contractor requirements for providing: appropriate service

visits by experienced personnel to supervise the installation, adjustment, startup, and operation of the treatment systems, and training covering appropriate operational procedures once the startup has been accomplished successfully.

2. Description of normal operation and maintenance (O&M), including:
  - a. Description of tasks for operation;
  - b. Description of tasks for maintenance;
  - c. Schedule showing frequency of each O&M task; and
  - d. Common and/or anticipated remedies.
3. Description of routine monitoring and laboratory testing, including:
  - a. Description of monitoring tasks and laboratory tests;
  - b. Required QA/QC; and
  - c. Schedule of monitoring frequency and date, if appropriate, when monitoring may cease.
4. Description of equipment, including:
  - a. Equipment identification;
  - b. Monitoring components;
  - c. Maintenance of site equipment; and
  - d. Replacement schedule for equipment and monitoring components.
5. Records and reporting mechanisms required, including:
  - a. Daily operating logs;
  - b. Laboratory records;
  - c. Mechanism for reporting emergencies;
  - d. Personnel and maintenance records; and
  - e. Monthly/annual reports to Federal/State agencies.

The Operation and Maintenance Plan shall be submitted with the Final Design Documents.

C. Project Schedule

Respondent shall develop a detailed Project Schedule for construction and implementation of the interim measure(s) which identifies timing for initiation and completion of all critical activities. Respondent shall specifically identify dates for completion of the project and major interim milestones which are enforceable terms of this order. A Project Schedule shall be submitted simultaneously with the Final Design Documents.

D. Final Design Documents

The Final Design Documents shall consist of the Final Design Plans and Specifications (100% complete), the Final Draft Operation and Maintenance Plan, and the Project Schedule. Respondent shall submit the final documents, 100% complete, with reproducible drawings and specifications. The quality of the design documents should be such that Respondent would be able to include them in a bid package and invite contractors to submit bids for the construction project.

**TASK IV: INTERIM MEASURES CONSTRUCTION QUALITY ASSURANCE PLAN**

A. Construction Quality Assurance Objectives

In the CQA plan, Respondent shall identify and document the objectives and framework for the development of a construction quality assurance program including, but not limited to the following: responsibility and authority; personnel qualifications; inspection activities; sampling requirements; and documentation. The responsibility and authority of all organizations (i.e., technical consultants, construction firms, etc.) and key personnel involved in the construction of the interim measures shall be described fully in the CQA plan. Respondent must identify a CQA officer and the necessary supporting inspection staff.

B. Inspection Activities

The observations and tests that will be used to monitor the construction and/or installation of the components of the interim measure(s) shall be summarized in the CQA plan. The plan shall include the scope and frequency of each type of inspection. Inspections shall verify compliance with all environmental requirements and include, but not be limited to, air quality and emissions monitoring records, waste disposal records (e.g., RCRA transportation manifests), etc. The inspection should also ensure compliance with all health and safety procedures.

C. Sampling Requirements

The sampling and testing activities, sample size, sample and test locations, frequency of testing, acceptance and rejection criteria, and plans for correcting problems should be presented in the CQA plan.

D. Documentation

Reporting requirements for CQA activities shall be described in detail in the CQA plan. This plan shall include such items as daily summary reports, inspection data sheets, problem identification and interim measures reports, design acceptance reports, and final documentation. Provisions for the final storage of all records shall be presented in the CQA plan.

**TASK V: REPORTS**

A. Interim Measures Workplan

Respondent shall submit an Interim Measures Workplan as described in this Attachment. The Interim Measures Workplan will include a list of any other required submittals (e.g., Final Design Document, Construction Quality Assurance Plan) and a schedule for submitting them to EPA.

B. Interim Measures Report

At the "completion" of the construction of the project (except for long term operation, maintenance, and monitoring), Respondent shall submit an Interim Measures Report to the Agency. The Report shall document that the project is consistent with the design specifications and that the interim measures are performing adequately. The Report shall include, but not be limited to, the following elements:

1. Synopsis of the interim measures and certification of the design and construction;
2. Explanation of any modifications to the plans and why these were necessary for the project;
3. Listing of the criteria, established before the interim measures were initiated, for judging the functioning of the interim measures and also for explaining any modification to these criteria;
4. Results of facility monitoring, indicating that the interim measures will meet or exceed the performance criteria; and

5. Explanation of the operation and maintenance (including monitoring) to be undertaken at the facility.

This report shall include the inspection summary reports, inspection data sheets, problem identification and corrective reporting data sheets, design engineers' acceptance reports, deviations from design and material specifications (with justifying documentation), and as-built drawings.

## Attachment 3

### Corrective Measures Implementation

#### Scope of Work

## **CORRECTIVE MEASURES IMPLEMENTATION SCOPE OF WORK**

### PURPOSE

This Scope of Work ("SOW") sets forth the requirements for the implementation of the design, construction, operation, maintenance, and monitoring of the corrective measures or measures pursuant to the Final Administrative Order on Consent ("Consent Order" or "Order") to which this SOW is attached. The work performed under this Order will implement the corrective measures that have been selected by EPA in the Final Decision and Response to Comments ("FDRTC") and any amendments thereto. The Respondent will furnish all personnel, materials, and services necessary for the implementation of the corrective measure or measures.

### SCOPE

The Corrective Measures ("CM") Implementation consists of four tasks:

#### Task I: CM Implementation Work Plan

- A. Management Plan
- B. Community Relations Plan
- C. Sampling and Analysis Plan
- D. CM Permitting Plan
- E. Supplemental Field Investigation Work Plan

#### Task II: CM Design

- A. Design Plans and Specifications
- B. Operation and Maintenance Plan
- C. Cost Estimate
- D. Construction Quality Assurance Objectives
- E. Health and Safety Plan
- F. Sampling and Analysis Plan
- G. Final CM Design

#### Task III: CM Construction

- A. Inspections
- B. CM Construction Report

#### Task IV: Reports

- A. CM Assessment Reports
- B. CM Implementation Work Plan
- C. CM Design Plan
- D. CM Construction Report

Further specifications of the work outlined in this SOW will be provided in the CM Implementation Work Plan and subsequent plans to be approved by EPA. Variations from the SOW will be made, if necessary, to fulfill the objectives of the CM set forth in the FDRTC and any amendments thereto.

Additional studies may be needed as part of the CM Implementation to supplement the available data. At the direction of EPA for any such studies required, the Respondent shall furnish all services, including field work, materials, supplies, plant, labor, equipment, investigations, and superintendence. Sufficient sampling, testing and analysis shall be performed to optimize the required treatment and/or disposal operations system.

#### TASK I: CORRECTIVE MEASURES IMPLEMENTATION WORK PLAN

The Respondent shall prepare a CM Implementation Work Plan that contains an outline of the design, construction, operation, maintenance and monitoring of all actions taken to implement the Corrective measures as defined in the Order and the FDRTC and any amendments thereto. This CM Implementation Work Plan will include the development and implementation of several plans, which require concurrent preparation. It may be necessary to revise plans as necessary during the performance of this Order. The CM Implementation Work Plan shall include the following:

##### A. Management Plan

The Respondent shall prepare a Management Plan which will include:

1. Documentation of the overall management strategy for performing the design, construction, operation, maintenance, and monitoring of corrective measure(s);
2. Description of the responsibility and authority of all organizations and key personnel involved with the implementation;
3. Description of the qualifications of key personnel directing the CM Implementation I, including contractor personnel;
4. Conceptual design of the treatment and/or disposal system or any corrective measures to be installed as set forth in the requirements of the FDRTC;
5. An outline of proposed field activities necessary to complete the CM Design;
6. Proposed locations of groundwater monitoring wells and a detailed well development plan;
7. Proposed discharge options for treated ground water, with a proposed option upon which

the CM Design will be based;

8. Proposed detailed performance criteria for groundwater treatment;
9. A description of how the conceptual design is expected to meet the technical requirements of the FDRTC and any amendments thereto; and
10. Project schedule and flow chart of work to be performed during the CMI.

#### B. Community Relations Plan

The Respondent shall submit and/or revise the Community Relations Plan to include any material changes in the level of concern or information needs of the community during design and construction activities.

#### C. Sampling and Analysis Plan

Respondent shall submit and/or revise the Sampling and Analysis Plan describing work to be performed during CM Design, the 12 month evaluation Period, and after completion of construction. The Sampling and Analysis Plan shall be comprised of:

1. Data quality objectives for design phase activities,
2. A Quality Assurance Project Plan (QAPP),
3. A Field Sampling Plan, and
4. A Data Management Plan describing the steps to be followed in compiling, organizing, and reviewing data collected in accordance with the Sampling and Analysis Plan and identifying the frequency of periodic data reviews and evaluations.

The Sampling and Analysis Plan will include the existing soil and well sampling and analysis program, with appropriate revisions as necessary.

#### D. Corrective Measures Permitting Plan

Respondent shall submit a Corrective Measures Permitting Plan identifying all federal, state, interstate and local permits and approvals required for the implementation of the Corrective Measures required by this Consent Order, and for the implementation of any institutional controls required by this Consent Order. The plan shall also identify all agreements or other arrangements with adjoining landowners, if any, known by Respondent to be necessary for the implementation of the Corrective measures, including, but not limited to, site access and easement agreements. The plan shall include a schedule indicating the time needed to obtain all such approvals and permits and to

enter into such agreements and arrangements (this may be integrated with the design/implementation schedule items).

#### E. Supplemental Field Investigation Work Plan

Respondent shall submit a work plan setting forth the protocols and methodologies for any additional hydrogeologic investigations or other field work, if any such additional investigation or field work is necessary, for the proper design of the groundwater extraction and treatment systems. The work plan shall include an expeditious schedule for the completion of any such supplemental field work.

### TASK II: CORRECTIVE MEASURES DESIGN

The Respondent shall prepare final construction plans and specifications to implement the Corrective measures at the facility as defined in the Corrective measures set forth in the FDRTC and any amendments thereto.

#### A. Design Plans and Specifications

The Respondent shall develop clear and comprehensive design plans and specifications which include, but are not limited to, the following:

1. Discussion of the design strategy and the design basis, including:
  - a. Compliance with all applicable or relevant environmental and public health standards;
  - b. Minimization of environmental and public health impacts; and
  - c. Update schedules, if necessary, from commencement through completion of construction of the CMI.
2. Discussion of the technical factors of importance including:
  - a. Use of currently accepted environmental control measures and technology;
  - b. The constructability of the design; and
  - c. Use of currently acceptable construction practices and techniques.
3. Description of assumptions made and detailed justification of these assumptions;
4. Discussion of the possible sources of error and references to possible operation and maintenance problems;

5. Detailed drawings of the proposed design including;
  - a. Qualitative flow sheets; and
  - b. Quantitative flow sheets.
6. Tables listing equipment and specifications;
7. Tables giving material and energy balances;
8. Appendices including:
  - a. Sample calculations (one example presented and explained clearly for significant or unique design calculations);
  - b. Derivation of equations essential to understanding the report; and
  - c. Results of laboratory or field tests.

#### B. Operation and Maintenance Plan

The Respondent shall prepare or revise the Operation and Maintenance ("O&M") Plan to cover both implementation and long term maintenance of the Corrective measures. The O&M Plan is to identify the processes to occur, submissions during O&M, and schedule for O&M activities consistent with remedial objectives set forth in the FDRTC and any amendments thereto. The plan shall be composed of the following elements:

1. Description of normal O&M:
  - a. Description of tasks for operation;
  - b. Description of tasks for maintenance;
  - c. Description of prescribed treatment or operation conditions; and
  - d. Schedule showing frequency of each O&M task, also to be included in the Management Plan.
2. Description of potential operating problems:
  - a. Description and analysis of potential operation problems;
  - b. Sources of information regarding problems; and

- c. Common and/or anticipated remedies.
3. Description of routine monitoring and laboratory testing:
    - a. Description of monitoring tasks;
    - b. Description of required laboratory tests and their interpretation;
    - c. Required QA/QC; and
    - d. Schedule of monitoring frequency and date, if appropriate, when monitoring may cease.
  4. Description of alternate O&M:
    - a. Should systems fail, alternate procedures to prevent undue hazard; and
    - b. Analysis of vulnerability and additional resource requirements should a failure occur.
  5. Safety plan:
    - a. Description of precautions, of necessary equipment, etc., for site personnel; and
    - b. Safety tasks required in event of systems failure.
  6. Description of equipment:
    - a. Equipment identification;
    - b. Installation of monitoring components;
    - c. Maintenance of site equipment; and
    - d. Replacement schedule for equipment and installed components.
  7. Records and reporting mechanisms required:
    - a. Daily operating logs;
    - b. Laboratory records;
    - c. Records for operating and maintenance costs;
    - d. Mechanism for reporting emergencies;

- e. Personnel and maintenance records;
- f. Contents of periodic progress reports described in Task IV.A and providing details on how Task IV. A requirements will be met; and
- g. Monthly/annual reports to State agencies.

#### C. Cost Estimate

The Respondent shall develop cost estimates of the Corrective Measures for the purpose of assuring that the Respondent has the financial resources necessary to construct and implement the Corrective measures. The cost estimate developed in the Corrective Measure Study shall be refined to reflect the more detailed/accurate design plans and specifications being developed. The cost estimate shall include both capital and operation and maintenance costs.

#### D. Construction Quality Assurance Objectives

The Respondent shall identify and document the objectives and framework for the development of a construction quality assurance program including, but not limited to the following: responsibility and authority; personnel qualifications; inspection activities; sampling requirements; and documentation.

#### E. Health and Safety Plan

The Respondent shall prepare a Health and Safety Plan or modify the Health and Safety Plan developed for the RCRA Facility Investigation to address the activities to be performed at the facility to implement the corrective measures.

#### F. Sampling and Analysis Plan Revision

Respondent shall update the Sampling and Analysis Plan, including the QAPP, during each phase of the project, as appropriate, to reflect changes in the following: responsibility and authority; personnel qualifications; inspection activities; sampling requirements; documentation, and other changes to the sampling and analysis program.

#### G. Final CM Design

The Final CM Design submittal shall consist of the Final Design Plans and Specifications (100% complete), the Respondent's Final Cost Estimate, the Final Draft Operation and Maintenance Plan, Final Quality Assurance Plan, Final Project Schedule, and Final Health and Safety Plan specifications. The quality of the design documents should be such that the Respondent would be able to include them in a bid package and invite contractors to submit bids for the construction project.

### TASK III: CORRECTIVE MEASURES CONSTRUCTION

Following EPA approval of the Final CM Design Plan, the Respondent shall develop and implement construction in accordance with procedures, specifications, and schedules in the EPA-approved Final CM Design Plan and the EPA approved CM Implementation Work Plan. During the Construction Phase, Respondent will continue to submit periodic progress reports. The Respondent shall also implement the elements of the approved O&M plan.

The Respondent shall update the Sampling and Analysis Plan, including the QAPP, during the Construction Phase, as appropriate, to reflect changes in the following: responsibility and authority, personnel qualification, construction quality assurance, inspection activities, documentation, and other changes affecting quality assurance.

The Respondent shall conduct the following activities during construction:

#### A. Inspections

1. Respondent will conduct inspections to monitor the construction and/or installation of components of the Corrective measures. Inspections shall verify compliance with all environmental requirements and include, but not limited to, review of air quality and emissions monitoring records, waste disposal records (e.g. RCRA transportation manifests), etc, as applicable. Inspections will also ensure compliance with all health and safety procedures. Treatment and/or disposal equipment will be operationally tested by the Respondent. The Respondent will certify that the equipment has performed to meet the purposes and intent of the specifications. Retesting will be completed where deficiencies are revealed.

2. When all construction is complete, the Respondent shall notify EPA for the purposes of conducting a final inspection. The final inspection will consist of a walk through inspection of the project site. The inspection is to determine whether the project is complete and consistent with contract documents and the EPA approved corrective measures. Any outstanding construction items will be identified and noted. If necessary, Respondent shall notify EPA upon completion of any outstanding construction items and another final inspection consisting of a walk-through inspection of the project site to confirm all outstanding items have been resolved.

#### B. CM Construction Report

Upon completion of construction and an initial period, not to exceed thirty (30) days, of performance monitoring after starting, and in accordance with the schedule included in the Management Plan, Respondent will prepare and submit a CM Construction Report.

### TASK IV: REPORTS

The Respondent shall prepare plans, specifications, and reports as set forth in Tasks I through III

to document the design, construction, operation, maintenance, and monitoring of the corrective measure. The documentation shall include, but not be limited to the following:

A. Progress Reports and Assessment Reports

The Respondent shall provide the EPA with signed, semi-annual progress reports containing:

1. A description of the work performed during the preceding monitoring interval and estimate of the percentage of the CM Implementation completed;
2. Summaries of all findings;
3. Summaries of all changes made in the CM Implementation during the reporting period;
4. Summaries of all contacts with representative of the local community, public interest groups, or State government during the reporting period;
5. Summaries of system performance during the reporting period including a summary of all problems or potential problems encountered or anticipated during the reporting period;
6. Actions being taken to rectify problems;
7. Changes in personnel during the reporting period;
8. Projected work for the next reporting period; and
9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

CM Assessment Reports

The Initial CM Assessment Report and the Five-Year CM Assessment Reports shall contain:

1. A narrative summary of principal activities conducted during the reporting period,
2. Graphical or tabular presentations of monitoring data, including but not limited to average monthly system pumping rates and throughput, efficiency, groundwater levels and flow direction, and groundwater quality,
3. A schedule of sampling and field activities to be performed in the reporting period, and
4. An O&M Evaluation. The O&M Evaluation shall assess performance of the corrective measure over time and provide one basis for EPA's Five-Year evaluation of the corrective measure. Annual O&M Evaluation shall include:

- a. Summarized data representing corrective measure performance during the reporting period;
- b. Any proposed changes to the corrective measure and summary of changes to have been previously made;
- c. Isoconcentration maps for each contaminant of concern listed in the Order and any other hazardous constituent identified above its MCL;
- d. Statistical assessment of the progress of the corrective measure towards achievement of media clean-up standards;
- e. When appropriate, notification that the media cleanup standards have been achieved.

#### B. CM Implementation Work Plan

The Respondent shall submit a CM Implementation Work Plan as outlined in Task I. The QAPP, included with the CM Implementation Work Plan, will be revised, as appropriate, throughout the CM implementation.

#### C. The CM Design Plan

The CM Design Plan shall include:

1. A summary of activities performed and data generated during CM Design, including results and interpretation of treatability studies;
2. Draft detailed CM Design Plans and Specifications reflecting the design work to be completed;
3. Final performance criteria for the corrective measures, consistent with comments to have been provided by EPA on the Conceptual Design proposed in the Management Plan;
4. Proposal of means to evaluate system performance against media cleanup standards listed in the FDRTC and any amendments thereto;
5. A Final O&M Plan;
6. A revised Cost Estimate;
7. Revision to the Sampling and Analysis Plan, including the QAPP, to address sampling activities to be performed during the Corrective Measures Construction Phase and Evaluation Period including the sampling activities, sample size, sample locations, frequency of testing,

acceptance and rejection criteria, and plans for correcting problems as addressed in the project specification;

8. Sampling and construction activities to be performed during the Corrective Measure Construction Phase;

9. Proposed changes to the Project Schedule, if appropriate, with emphasis on short-term Construction schedule. These proposed changes in schedule also will be included in the revised Management Plan.

#### F. CM Construction Report

The Respondent shall submit the CM Construction Report as outlined in Task III to this SOW. The CM Construction Report shall describe activities performed during construction, provide actual specifications of the implemented remedy, and provide a preliminary assessment of CM performance. The CM Construction Report shall include, but not be limited to, the following elements:

1. Synopsis of the corrective measure and certification of the design and construction;
2. Explanation of any modifications to the EPA-approved construction and/or design plans and why these were necessary for the project;
3. Listing of the criteria, established in the EPA-approved CM Implementation Work Plan, for judging whether the corrective measure is functioning properly, and also explaining any modification to these criteria;
4. Certification by registered professional engineer that the construction is complete, consistent with contract documents, and the EPA-approved corrective measure, and that the equipment performs to meet the intent of the specifications;
5. Results of Facility monitoring, assessing the likelihood that the Corrective Measure will meet or exceed the media clean-up standards set forth in the FDRTC and any amendment thereto.

This report should include all of the daily inspection summary reports, inspection summary reports, inspection data sheets, problem identification and CM construction reports, block evaluation reports, photographic reporting data sheets, design engineers' acceptance reports, deviations from design and material specifications (with justifying documentation), and as-built drawings, unless otherwise agreed to by EPA.

## Attachment 4

### Health and Safety Plan

## **HEALTH AND SAFETY PLAN**

The Respondent shall prepare a facility Health and Safety Plan.

1. Major elements of the Health and Safety Plan shall include:
  - a. Facility description including availability of resources such as roads, water supply, electricity, and telephone service;
  - b. Description of the known hazards and evaluations of the risks associated with the incident and with each activity conducted, including, but not limited to, on- and off-site exposure to contaminants;
  - c. List of key personnel and alternates responsible for site safety, response operations, and protection of public health;
  - d. Delineation of work area;
  - e. Description of levels of protection to be worn by personnel in work area;
  - f. Establishment of procedures to control site access;
  - g. Description of decontamination procedures for personnel and equipment;
  - h. Establishment of site emergency procedures;
  - i. Emergency medical care for injuries and toxicological problems;
  - j. Description of requirements for an environmental surveillance program;
  - k. Routine and special training required for responders; and
  - l. Establishment of procedures for protecting workers from weather-related problems.
2. The facility Health and Safety Plan shall be consistent with:
  - a. NIOSH Occupational Safety and Health Guidance Manual For Hazardous Waste Site Activities (1985);
  - b. EPA Order 1440.3 - Respiratory Protection;

- c. EPA Order 1440.2 - Health and Safety Requirements for Employees Engaged in Field Activities;
  - d. Facility Contingency Plan;
  - e. EPA Standard Operating Safety Guide (1984);
  - f. OSHA regulations, particularly in 29 C.F.R. 1910 and 1926;
  - g. State and local regulations; and
  - h. Other EPA guidance as provided.
3. The Health and Safety Plan must be revised to address any additions and/or changes in planned activities.