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UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 4

IN THE MATTER OF:
Copper Basin Mining District Site

OXY USA, Inc. and
Glenn Springs Holdings, Inc.,
Respondent

ADMINISTRATIVE ORDER ON
CONSENT FOR REMOVAL ACTION
AT THE NORTH POTATO CREEK
WATERSHED

U.S. EPA Region 4
CERCLA Docket No. 01-11-C

Proceeding Under Sections 104, 106(a), 107
and 122 of the Comprehensive
Environmental Response, Compensation,
and Liability Act, as amended, 42 U.S.C. §§
9604, 9606(a), 9607 and 9622

DU-2001-0139
TND DD1890 839

I. JURISDICTION AND GENERAL PROVISIONS

This Administrative Order on Consent ("Order") is entered into by the United States Environmental Protection Agency ("EPA"), and OXY USA, Inc., a Delaware corporation, and Glenn Springs Holdings, Inc., a Delaware Corporation which serves as a representative of OXY USA, Inc. (hereinafter collectively, "OXY USA"). OXY USA consents to and will not contest EPA's jurisdiction to enter into this Consent Order or to implement or enforce its terms. This Order provides for the performance of removal action by OXY USA and the reimbursement of response costs incurred by the United States in connection with the Study Site, defined herein, located in the Copper Basin Mining District Site of Polk County, southeastern Tennessee and Fannin County, northern Georgia (the "Copper Basin Mining District" or the "Site"). This Order requires OXY USA to conduct the removal action described herein to abate what EPA has found to be an imminent and substantial endangerment to the public health, welfare or the environment that may be presented by the actual or threatened release of hazardous substances, pollutants, or contaminants at or from the Site.

This Order is issued pursuant to the authority vested in the President of the United States by Sections 104, 106(a), 107, and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), 9607, and 9622, as amended ("CERCLA"), and delegated to the Administrator of EPA by Executive Order No. 12580, January 23, 1987, 52 Federal Register 2923, and further delegated to the EPA Regional Administrators by EPA Delegation Nos. 14-14-A, 14-14-C and 14-14-D.

EPA has notified the State of Tennessee of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

OXY USA's participation in this Order shall not constitute or be construed as an admission of liability or of EPA's findings or determinations contained in this Order except in a proceeding to enforce the terms of this Order. OXY USA agrees to comply with and be bound by the terms of this Order. OXY USA further agrees that it will not contest the basis or validity of this Order or its terms.

II. PARTIES BOUND

This Order applies to and is binding upon EPA and upon OXY USA. Any change in ownership or corporate status of OXY USA including, but not limited to, any transfer of assets or real or personal property shall not alter OXY USA's responsibilities under this Order.

OXY USA shall ensure that its contractors, subcontractors, and representatives receive a copy of this Order and comply with this Order. OXY USA shall be responsible for any noncompliance with this Order.

III. DEFINITIONS

Unless otherwise expressly provided herein, terms used in this Order which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Order or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

"CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601 et seq.

"Commissioner's Order" shall mean the Order entered into by TDEC and OXY USA dated January 4, 2001 concerning the North Potato Creek Watershed portion of the Copper Basin Mining District Site.

"Day" shall mean a calendar day unless expressly stated to be a working day. "Working day" shall mean a day other than a Saturday, Sunday, or Federal holiday. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the next working day.

"EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

"Future Response Costs" shall mean all costs not inconsistent with the NCP, including, but not limited to, direct and indirect costs, that the United States incurs in reviewing or developing plans, reports and other items pursuant to this Order, verifying the Work, or otherwise implementing, overseeing, or enforcing this Order, including, but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, the costs incurred pursuant to Sections VI, VII, IX (including, but not limited to, the cost of attorney time and any monies paid to secure access and/or to secure institutional controls, including the amount of just compensation), XII, and XV.

"Interest" shall mean interest at the rate specified for interest on investments of the Hazardous Substance Superfund established under Subchapter A of Chapter 98 of Title 26 of the U.S. Code, compounded on October 1 of each year, in accordance with 42 U.S.C. § 9607(a).

"National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

"Parties" shall mean EPA and OXY USA.

"RCRA" shall mean the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901 et seq. (also known as the Resource Conservation and Recovery Act).

"Section" shall mean a portion of this Order identified by a roman numeral.

"State" shall mean the State of Tennessee.

"Study Site" shall mean the North Potato Creek Watershed and any other areas within the Site relevant to response actions taken in connection with this Order.

"Supervising Contractor" shall mean the principal contractor retained by OXY USA to supervise and direct the implementation of the Work under this Order.

"TDEC" shall mean the Tennessee Department of Environment and Conservation and any successor departments or agencies of the State.

"United States" shall mean the United States of America.

"Waste Material" shall mean (1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (2) any pollutant or contaminant under Section 101(33), 42 U.S.C. § 9601(33); (3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).

"Work" shall mean all activities OXY USA is required to perform under this Order, except those required by Section VI.4. (Retention of Records).

IV. FINDINGS OF FACT

For the purposes of this Order, EPA finds that:

1. In 1843, a massive underground sulfide ore deposit containing copper, iron and zinc was discovered in the Copper Basin area. Copper and iron mining operations began around 1847 and smelting operations began between 1850 and 1856 in areas around Ducktown, Isabella, and London, Tennessee. By 1876, operations led to the complete stripping of topsoil and the denuding of an estimated 100 square miles of land. Other operations conducted at the Site during its 150 years of operations include the production of sulfuric acid and other various chemicals, and mineral processing.

2. Several different corporate entities have owned and/or operated at the Site during the time of disposal of hazardous substances.

a. From 1963 until 1982, Cities Services Company, its corporate predecessors and related entities, operated at the Site.

b. In 1982, Cities Service Company sold the mines, mills, smelting operations, and acid production plants to the Tennessee Chemical Company ("TCC").

c. EPA alleges that OXY USA, Inc., a subsidiary of Occidental Petroleum Corporation, is a successor in interest of Cities Service Company. OXY USA expressly denies this allegation.

d. Mining operations were discontinued in 1987, however, TCC continued to produce industrial chemicals including sulfuric acid, liquid sulfur dioxide, zinc, copper, granulated slag, zinc concentrate, and iron oxide. TCC declared bankruptcy in April 1989.

e. In March 1990, Boliden Intertrade, A.G., Tennessee Chemical Company Holding S.A., and Tennessee Chemical Company Acquisition, Inc., entered into an Agreement and Covenant Not to Sue with EPA and purchased portions of the TCC property including, among other things, the re-built sulfuric acid plant. The successor to Tennessee Chemical Company Acquisition, Inc., is IT Holdings, Inc., of which Intertrade Holdings, Inc. is a subsidiary. The plant is presently operated by Intertrade Holdings, Inc.

3. Historical copper and iron mining, mineral processing and acid production has led to the generation of a variety of waste materials including sulfide-rich ore, sulfide-bearing waste rock, tailings, granular and pot slag, iron calcine, magnetite, iron concentrate, and demolition debris. Waste materials identified to date include, but are not limited to, sulfuric acid, lead, mercury, PCBs, copper, cadmium, aluminum, zinc, and manganese.
4. Due to acid mine drainage in the Copper Basin and surface water runoff from other various waste sources, the North Potato Creek and Davis Mill Creek contain heavy metal precipitates, mercury and PCBs. The waters discharged from these watersheds into the Ocoee River do not meet water quality criteria established pursuant to the Clean Water Act. Stream samples have pH values as low as 3.1. These tributaries are essentially void of life.
5. Once operated as a surface mine, EPA ordered the diversion of North Potato Creek into the South Mine Pit to act as a sediment trap for the North Potato Creek resulting in a pit lake. The South Mine Pit has a maximum depth of 205 feet. It does not support aquatic life. Surface water effluent from the South Mine Pit has a mean pH value of 3.6 and contains high levels of manganese (4.19 mg/L) and sulfates (2020 mg/L). The creek now exits the pit at its southwestern end and continues to the Ocoee River. The pit has a major influence on the quality of the water entering the Ocoee River. On February 29, 2000, samples collected at the mouth of North Potato Creek, revealed that aluminum 900 ug/l, copper 96 ug/l, iron 2200 ug/l, manganese 3000 ug/l, zinc 820 ug/l, sulfate 260 mg/l and acidity 130 mg/l exceeded the Tennessee Water Quality Criteria (using a hardness value of 25 mg/l) and/or Federal Water Quality Standards.
6. Historical sampling of the Ocoee River has recorded elevated concentrations of several hazardous substances and pollutants or contaminants in the River's water and sediments including, but not limited to, lead, mercury, aluminum, copper, cadmium iron, arsenic, manganese and zinc. PCBs have been detected at elevated levels in both sediment and fish within the Ocoee River.
7. Designated uses of the Ocoee River include recreational purposes, to support fish and aquatic life, as a source for industrial water, power generation, wildlife, livestock watering and for irrigation.
8. On January 11, 2001, the Parties and TDEC signed a Memorandum of Understanding (MOU) concerning the cleanup of the Site.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

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

1. The Copper Basin Mining District Site is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).
2. The contaminants found at the Site, as identified in the Findings of Fact above, include "hazardous substances" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).
3. OXY USA is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).
4. OXY USA may be liable under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).
5. The conditions described in the Findings of Fact above constitute an actual or threatened "release" of a hazardous substance from the Site as defined by Sections 101(22) of CERCLA, 42 U.S.C. § 9601(22).
6. The actual or threatened release of hazardous substances at or from the Site may present an imminent and substantial endangerment to the public health, welfare, or the environment within the meaning of Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).
7. The removal actions required by this Order are necessary to protect the public health, welfare, or the environment, and are not inconsistent with the NCP or CERCLA.

VI. ORDER

Based upon the foregoing Findings of Fact, Conclusions of Law and Determinations, and the Administrative Record for this Site, it is hereby ordered and agreed that OXY USA shall comply with the following provisions and perform the following actions:

1. Designation of Contractor, Project Coordinator, and Remedial Project Manager

OXY USA shall perform the removal action required by this Order itself or retain a contractor to perform the removal action. OXY USA shall notify EPA of OXY USA's qualifications or the name and qualification of such contractor within **21 days** of the effective date of this Order. OXY USA shall also notify EPA of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the removal action under this Order at least **7 days** prior to commencement of such removal action. EPA retains the right to disapprove of any, or all, of the contractors and/or subcontractors retained by OXY USA, or of OXY USA's choice of itself to do the removal action. If EPA disapproves of a selected contractor or OXY USA, OXY USA shall retain a different contractor or notify EPA that it will perform the removal action itself within **7 days** following EPA's disapproval and shall notify EPA of that contractor's name or OXY USA and qualifications within **7 days** of EPA's disapproval.

OXY USA has designated Franklin Miller as its Project Coordinator. The Project Coordinator shall be responsible for administration of all OXY USA's actions required by the Order. The Project Coordinator shall have the authority to implement all actions in the approved Work Plan. To the greatest extent possible, the Project Coordinator shall be present on-site or readily available during site work. EPA retains the right to disapprove of any change of OXY USA's Project Coordinator. If EPA disapproves of a selected Project Coordinator, OXY USA shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number, and qualifications within **7 business days** following EPA's disapproval. Receipt by OXY USA's Project Coordinator of any notice or communication from EPA relating to this Order shall constitute receipt by OXY USA.

EPA has designated Matt Taylor of the EPA, Region IV CERCLA North Site Management Branch as its EPA Remedial Project Manager ("RPM"). OXY USA shall direct all submissions required by this Order to the EPA RPM at 61 Forsyth Street, Atlanta, Georgia 30303.

EPA and OXY USA shall have the right, subject to the immediately preceding paragraph, to change its/their designated RPM or Project Coordinator. OXY USA shall notify EPA **7 days** before such a change is made. The initial notification may be orally made but it shall be promptly followed by a written notice.

2. Work to Be Performed

OXY USA shall conduct an Engineering Evaluation/Cost Analysis ("EE/CA") at the Study Site that is consistent with Section 300.415(b)(4) of the NCP and in accordance with reference document *EPA/540-R-93-057, OSWER Directive 9360.0-32, August 1993; Guidance on Conducting Non-Time Critical Removal Actions Under CERCLA*. OXY USA shall conduct a field sampling and analysis program designed to provide the data necessary to evaluate temporary response action alternatives to address and alleviate contaminant discharge from the North Potato Creek into the Ocoee River while long-term work and study is proceeding upstream in the North Potato Creek Watershed. Included in this field sampling and analysis program, OXY USA shall conduct a limnological study of the South Mine Pit. OXY USA shall also analyze and evaluate response action alternatives which will effectively treat waters before entering into the Ocoee River from the North Potato Creek. OXY USA shall prepare an EE/CA Report which summarizes the findings of the field program and identifies the removal action that best satisfies the evaluation criteria based on the comparative analysis. The EE/CA Report will be used to determine the recommended removal action in the Action Memorandum.

2.1 Scope of Work, Work Plan and Implementation

Within thirty **(30) days** after the effective date of this Order, OXY USA shall submit to EPA for review a draft Scope of Work (SOW) for performing the EE/CA set forth above. TDEC shall also have the opportunity to review and comment on the draft SOW. The SOW shall also include a comprehensive project schedule for completion of each major activity required by this Order and the submission of each required deliverable. The project schedule shall reflect completion of the

EE/CA process and submittal of a draft EE/CA Report within eighteen (18) months from the effective date of this Order. EPA may approve, disapprove, require revisions to, or modify the draft SOW. Any such revision or modification shall be consistent with the description of work to be performed in Section VI.2. If EPA requires revisions, OXY USA shall submit a revised draft SOW within **14 days** of receipt of EPA's notification of the required revisions. The EPA-approved schedule contained in the EE/CA SOW shall become an enforceable component of this Order. Modifications to the EE/CA project schedule may be made with mutual consent between the designated Project Coordinators of OXY USA and EPA.

Within forty-five (45) days after receipt by OXY USA of EPA's approval of the SOW, OXY USA shall submit to EPA for review a draft EE/CA Work Plan. TDEC shall also have the opportunity to review and comment on the draft EE/CA Work Plan. The EE/CA Work Plan shall provide an outline of the major components of the EE/CA process which includes site characterization, identification of removal action objectives, identification and analysis of removal action alternatives, comparative analysis of removal action alternatives, and the recommended removal action alternative. The EE/CA Work Plan shall focus on site characterization and present a comprehensive strategy to: 1) fully determine the nature/extent of contamination present; and 2) evaluate potential current/future risks posed to human health and the environment.

EPA may approve, disapprove, require revisions to, or modify the draft Work Plan. Any such revision or modification shall be consistent with the description of work to be performed in Section VI.2. If EPA requires revisions, OXY USA shall submit a revised draft Work Plan within **14 days** of receipt of EPA's notification of the required revisions. OXY USA shall implement the Work Plan as finally approved in writing by EPA in accordance with the approved schedule. Once approved, or approved with modifications, the Work Plan, the schedule, and any subsequent modifications shall be fully enforceable under this Order. OXY USA shall notify EPA at least **5 business days** prior to performing any on-site work pursuant to the Approved Work Plan. OXY USA shall not commence or undertake any removal action on-site without prior approval from EPA, unless such action is required by the Order issued by TDEC for North Potato Creek.

The EE/CA Work Plan shall present a field sampling and analysis program designed to provide data of sufficient quality and quantity to evaluate alternatives that achieve the identified Removal Action Objectives. The sampling and analysis plan shall present a comprehensive approach for the media to be investigated (surface/subsurface soils, groundwater, sediments, surface water, etc.), propose sample locations and frequency, and delineate required sample equipment, sampling procedures, sample handling and decontamination procedures for sampling equipment. In an effort to eliminate duplicity and to streamline site characterization efforts, the proposed sampling strategy shall utilize previous data collected by EPA and OXY USA, where available. All sampling and analysis conducted under this Order shall be consistent with reference document *Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM)*, US EPA - Region 4, Science and Ecosystems Support Division, Enforcement and Investigations Branch, May 1996 (as revised), or explain and provide rationale for deviations.

2.2 Health and Safety Plan

Simultaneously with submittal of the Work Plan, OXY USA shall submit for EPA's review and comment a plan that ensures the protection of the public health and safety during performance of on-site work under this Order. This plan shall be prepared in accordance with EPA's current Standard Operating Safety Guide, dated November 1984, and currently updated July 1988 (but see latest version if different). The plan shall comply with all current applicable Occupational Safety and Health Administration (OSHA) regulations found at 29 CFR Part 1910. In addition, the plan shall include specific measures to ensure safety from physical hazards posed by mines on the Study Site including restriction of access to physical hazards and subsidence studies to further assess site safety issues. OXY USA shall incorporate all changes to the plan recommended by EPA and implement the plan during the removal action.

2.3 Quality Assurance and Sampling

All sampling and analyses performed pursuant to this Order shall conform to EPA's direction, approval, and guidance regarding sampling, quality assurance/quality control (QA/QC), data validation, and chain of custody procedures. OXY USA shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with the appropriate EPA guidance. OXY USA shall adhere to the following documents, as appropriate, as guidance for QA/QC and sampling: "Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures," OSWER Directive Number 9360.4-01; dated January 1990; "Compendium of ERT Procedures," OSWER Directives Numbered 9360.4-04 through 9360.4-08.

Upon request by EPA, OXY USA shall have such a laboratory analyze samples submitted by EPA for quality-assurance monitoring. OXY USA shall provide to EPA the quality assurance/quality control procedures followed by all sampling teams and laboratories performing data collection and/or analysis.

Upon request by EPA, OXY USA shall allow EPA or its authorized representatives to take split and/or duplicate samples of any samples collected by OXY USA while performing work under this Order. OXY USA shall notify EPA not less than **5 business days** in advance of any sample collection activity. EPA shall have the right to take any additional samples that it deems necessary.

2.4 Post-Removal Site Control

In accordance with the Work Plan schedule, or as otherwise directed by EPA, OXY USA shall submit a proposal for post-removal site control consistent with Section 300.415(l) of the NCP and OSWER Directive 9360.2-02, to the extent feasible, recognizing that OXY USA does not own the real property or facilities at the Site. Upon EPA approval, OXY USA shall implement such controls and shall provide EPA with documentation of all post-removal site control arrangements.

2.5 Reporting

OXY USA shall submit to EPA and TDEC written bi-monthly progress reports which: (1) describe the actions which have been taken toward achieving compliance with this Order during

the previous month; (2) include all results of sampling and tests and all other data received by OXY USA during the course of the work; (3) include all plans and procedures completed under the Work Plan during the previous month; (4) describe all actions, data, and plans which are scheduled for the next month, and provide other information relating to the progress of the work as deemed necessary by EPA; and (5) include information regarding percentage of completion, unresolved delays, encountered or anticipated, that may affect the future schedule for implementation of the Scope of Work and Work Plans, and a description of efforts made to mitigate those delays or anticipated delays. These progress reports are to be submitted to EPA by the tenth day of every month following the effective date of this Order.

2.6 Final EE/CA Report

Following completion of the EE/CA field characterization efforts, OXY USA shall submit the draft EE/CA Report for EPA's review and technical comment. TDEC shall also have opportunity to review and comment on the draft EE/CA Report. The draft EE/CA Report shall summarize available analytical data to spatially evaluate the nature/extent of contaminant(s) present in the media of concern, and to identify potential source(s) of such contaminant(s). The draft EE/CA Report shall include a streamlined risk assessment to evaluate potential risks posed to human health and the environment under the assumption that no response action(s) would be taken at the Study Site. The streamlined risk assessment should focus on the specific Removal Action Objectives and should be consistent with established EPA protocols delineated in EPA's *Risk Assessment Guidance for Superfund* and other appropriate supplements or addenda thereto. The results of the streamlined risk assessment will be utilized by EPA to determine whether a CERCLA response action is warranted at the Study Site, what exposures need to be addressed by the response action, and define appropriate cleanup goals. The draft EE/CA Report shall identify and analyze Removal Action Alternatives based on the response action evaluation criteria of effectiveness, implementability, and cost. Subsequent to a comparative analysis of identified Removal Action Alternatives, the draft EE/CA Report shall conclude with a refined conceptual description of the recommended Removal Action Alternative.

EPA may determine, based on review of the draft EE/CA Report, that other tasks, including supplemental investigatory work and/or engineering evaluation are necessary as part of the EE/CA process that are in addition to approved tasks and deliverables, including reports which may have been completed pursuant to this Order and the Final EE/CA Work Plan. OXY USA shall implement any additional tasks which EPA determines are necessary to sufficiently complete the EE/CA and to select a response action that is adequately protective of human health and the environment. The additional tasks, if any, shall be completed in accordance with the standards, specifications and schedule determined or approved by EPA.

EPA will compile all documents generated pursuant to this Consent Order and other site-specific information in an Administrative Record for the Study Site. Upon approval of the Final EE/CA Report, EPA will publish a public notice of availability of the Administrative Record. Pursuant to NCP requirements, a 30-day public comment period will be held on EPA's recommended Removal Action and other supporting documentation in the Administrative Record. EPA will respond to all significant comments received during the formal comment period and include a written response to

comments received in the Administrative Record. EPA will prepare the Action Memorandum for the Study Site which will substantiate the need for a Removal Action, identify the proposed Removal Action, and explain the rationale for the Removal Action selected. Issuance of the Action Memorandum by EPA will complete the EE/CA process required under this Consent Order.

2.7 Performance of Selected Removal Action

If the Removal Action selected by EPA and identified in its Action Memorandum includes lime treatment at the South Mine Pit, then OXY USA hereby agrees to and shall implement the lime treatment portion of the selected Removal Action, which shall include the provision of equipment and construction necessary to mix the lime with North Potato Creek and the underground flow from the Cherokee mine works, and shall include operation and maintenance of the system, as deemed necessary by EPA. The parties recognize that OXY USA's commitment to implement the lime treatment portion of the selected Removal Action shall be capped at six-million dollars (\$6,000,000) in capital costs and the treatment of the discharge from the South Mine Pit to a pH level of 7.5, except that, if EPA determines that it is necessary to protect the biological integrity (as defined in the Commissioner's Order) of the downstream area of the North Potato Creek from dissolved metals, then treatment shall be capped at a pH level of 8.5. OXY USA further agrees that the temporary treatment remedy will be adequate to treat groundwater flow into the South Mine Pit and the flow in North Potato Creek attributable to a 10 year/24 hour storm event. OXY USA shall continue to operate the lime treatment system until performance goals established in the Commissioner's Order have been attained and TDEC has issued the Letter of Completion under Paragraph 22(c) of the Commissioner's Order; provided, however, that after selection of the permanent remedy for North Potato Creek, pursuant to the Commissioner's Order, and after consultation with TDEC, EPA may temporarily suspend such work provisions to test the permanent remedy or EPA may terminate such work provisions of this Order to ensure consistency of the removal action with the permanent remedy. In addition, OXY USA shall, in the performance of said Removal Action, comply with the requirements and provisions of following sub-parts of Section VI. (Order) of this Order: Section 2.3 (Quality Assurance and Sampling); Section 2.4 (Post-Removal Site Control); Section 2.5 (Reporting); Section 2.8 (Deliverables); Section 3 (Access to Property and Information); Section 4 (Record Retention; Documentation, Availability of Information); Section 5 (Off-Site Shipments); Section 6 (Compliance With Other Laws); Section 7 (Emergency Response and Notification of Releases), and shall perform the following actions:

2.7(a) Designation of Contractor, Project Coordinator, and Remedial Project Manager.

OXY USA shall perform the removal action outlined in sub-part 2.7 of this Order itself or retain a contractor to perform the removal action. OXY USA shall notify EPA of OXY USA's qualifications or the name and qualification of such contractor within 14 days after EPA signs the Action Memorandum identifying lime treatment at the South Mine Pit as all or part of the selected Removal Action. OXY USA shall also notify EPA of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the removal action under this Order at least 7 days prior to commencement of such removal action. EPA retains the right to disapprove of any, or all, of the contractors and/or subcontractors retained by OXY USA, or of OXY USA's choice

of itself to do the removal action. If EPA disapproves of a selected contractor or OXY USA, OXY USA shall retain a different contractor or notify EPA that it will perform the removal action itself within **7 days** following EPA's disapproval and shall notify EPA of that contractor's name or OXY USA and qualifications within **7 days** of EPA's disapproval.

OXY USA has designated Franklin Miller as its Project Coordinator. The Project Coordinator shall be responsible for administration of all OXY USA's actions required by the Order. The Project Coordinator shall have the authority to implement all actions in the approved Work Plan. To the greatest extent possible, the Project Coordinator shall be present on-site or readily available during site work. EPA retains the right to disapprove of any change of OXY USA's Project Coordinator. If EPA disapproves of a selected Project Coordinator, OXY USA shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number, and qualifications within **7 business days** following EPA's disapproval. Receipt by OXY USA's Project Coordinator of any notice or communication from EPA relating to this Order shall constitute receipt by OXY USA.

EPA has designated Matt Taylor of the EPA, Region IV CERCLA North Site Management Branch as its EPA Remedial Project Manager ("RPM"). OXY USA shall direct all submissions required by this Order to the EPA RPM at 61 Forsyth Street, Atlanta, Georgia 30303.

EPA and OXY USA shall have the right, subject to the provisions of this sub-part, to change its/their designated RPM or Project Coordinator. OXY USA shall notify EPA **7 days** before such a change is made. The initial notification may be orally made but it shall be promptly followed by a written notice.

2.7(b) Scope of Work, Work Plan and Implementation. Within thirty **(30) days** after EPA signs the Action Memorandum identifying lime treatment at the South Mine Pit as all or part of the selected Removal Action, or as an element of the selected Removal Action, OXY USA shall submit to EPA for review a draft Scope of Work (SOW) for performing the lime neutralization portion of the selected Removal Action. TDEC shall also have the opportunity to review and comment on the draft SOW. The draft SOW shall provide a general description of, and an expeditious schedule for, the actions required to conduct the lime neutralization portion of the selected Removal Action. EPA may approve, disapprove, require revisions to, or modify the draft SOW. Any such revision or modification shall be consistent with the description of work to be performed in Section VI.2.7. If EPA requires revisions, OXY USA shall submit a revised draft SOW within **14 days** of receipt of EPA's notification of the required revisions. The EPA-approved schedule contained in the SOW shall become an enforceable component of this Order. Modifications to the removal action schedule may be made with mutual consent between the designated Project Coordinators of OXY USA and EPA.

Within forty-five **(45) days** after receipt by OXY USA of EPA's approval of the SOW, OXY USA shall submit to EPA for review a draft Work Plan for performing the lime treatment at the South Mine Pit. TDEC shall also have the opportunity to review and comment on the draft Work Plan. The draft Work Plan shall provide a detailed description of the actions required by this Order.

EPA may approve, disapprove, require revisions to, or modify the draft Work Plan. Any such revision or modification shall be consistent with the description of work to be performed in Section VI.2.7. If EPA requires revisions, OXY USA shall submit a revised draft Work Plan within 14 days of receipt of EPA's notification of the required revisions. OXY USA shall implement the Work Plan as finally approved in writing by EPA in accordance with the approved schedule. Once approved, or approved with modifications, the Work Plan, the schedule, and any subsequent modifications shall be fully enforceable under this Order. OXY USA shall notify EPA at least 5 business days prior to performing any on-site work pursuant to the Approved Work Plan. OXY USA shall not commence or undertake any removal action on-site without prior approval from EPA.

2.7(c) Health and Safety Plan. Simultaneously with submittal of the Work Plan, OXY USA shall submit for EPA's review and comment a plan that ensures the protection of the public health and safety during performance of on-site work under this Order. This plan shall be prepared in accordance with EPA's current Standard Operating Safety Guide, dated November 1984, and currently updated July 1988 (but see latest version if different). In addition, the plan shall comply with all current applicable Occupational Safety and Health Administration (OSHA) regulations found at 29 C.F.R. Part 1910. In addition, the plan shall include specific measures to ensure safety from physical hazards posed by mines on the Study Site including restriction of access to physical hazards and subsidence studies to further assess site safety issues. OXY USA shall incorporate all changes to the plan recommended by EPA and implement the plan during the removal action.

If EPA selects a Removal Action other than lime treatment at the South Mine Pit or selects a treatment supplemental to lime treatment, OXY USA agrees to negotiate with EPA to perform the selected Removal Action or the supplemental treatment.

2.7(d) Final Report. Within 30 days after completion of the removal action required under sub-part 2.7 of this Order, OXY USA shall submit for EPA review and approval a final report summarizing the actions taken to comply with this Order. The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled "OSC Reports" and OSWER Directive No. 9360.3-03 - "Removal Response Reporting." The final report shall include a good faith estimate of total costs or a statement of actual costs incurred in complying with the Order, a listing of quantities and types of materials removed off-Site or handled on-Site, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destination of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action. The final report shall also include the following certification signed by a person who supervised or directed the preparation of that report:

I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

2.8 Deliverables

Deliverables, including reports, plans or other correspondence to be submitted per this Order shall be sent by regular certified mail, express mail or overnight delivery to the following addresses or to such other addresses as EPA hereafter may designate in writing. Three (3) copies of each document or deliverable shall be submitted to the EPA RPM and TDEC's Superfund Office below:

Matt Taylor
Remedial Project Manager
U.S. EPA - Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303

Tennessee Department of Environment
and Conservation, Division of Superfund
Fourth floor, L & C Annex
401 Church Street
Nashville, Tennessee
37243-1538

3. Access to Property and Information

OXY USA shall use its best efforts to obtain access to the Study Site and off-Study Site areas to which access is necessary to implement this Order, and to all records and documentation in its possession related to the conditions at the Study Site and the actions conducted pursuant to this Order. Such access shall be sought for EPA's employees, contractors, agents, consultants, designees, representatives, and State of Tennessee representatives so as to permit these individuals to move freely on the Study Site and at appropriate off-Study Site areas in order to conduct actions which EPA determines to be necessary.

OXY USA shall use its best efforts to obtain all necessary access agreements within **60 days** after the effective date of this Order, or as otherwise specified in writing by the EPA RPM. For purposes this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access. OXY USA shall immediately notify EPA if, after using its best efforts, it is unable to obtain such agreements. OXY USA shall describe in writing its efforts to obtain access. EPA may then assist OXY USA in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as they deem appropriate. OXY USA shall reimburse EPA for all costs and attorneys' fees incurred by the United States in obtaining such access.

OXY USA shall submit to EPA, upon receipt, the results of all sampling or tests and all other data generated by OXY USA or their contractor(s), or on OXY USA's behalf during implementation of this Order.

4. Record Retention, Documentation, Availability of Information

OXY USA shall preserve all documents and information relating to work performed under this Order, or relating to the waste materials found on or released from the Study Site, for ten years following completion of the removal actions required by this Order. At the end of this ten year-period and 30 days before any document or information is destroyed, OXY USA shall notify EPA that such documents and information are available to them for inspection, and upon request, shall

make available the originals or copies of such documents and information to EPA and TDEC. In addition, OXY USA shall provide documents and information retained under this section at any time before expiration of the ten year- period at the written request of EPA or TDEC.

OXY USA may assert a business confidentiality claim pursuant to 40 CFR § 2.203(b) with respect to part or all of any information submitted to EPA pursuant to this Order, provided such claim is allowed by Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7). Analytical and other data specified in Section 104(e)(7)(F) of CERCLA shall not be claimed as confidential by OXY USA. EPA shall disclose information covered by a business confidentiality claim only to the extent permitted by, and by means of the procedures set forth at, 40 CFR Part 2, Subpart B. If no such claim accompanies the information when it is received by EPA, EPA may make it available to the public without further notice to OXY USA.

5. Off-Site Shipments

All hazardous substances, pollutants, or contaminants removed off-site pursuant to this Order for treatment, storage, or disposal shall be treated, stored, or disposed of at a facility in compliance, as determined by EPA, pursuant to Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), and the off-site rule at 40 CFR 300.440. EPA will provide information on the acceptability of a facility under Section 121(d)(3) of CERCLA and 40 CFR 300.440.

6. Compliance With Other Laws

OXY USA shall perform all actions required pursuant to this Order in accordance with all local, state, and federal laws and regulations except as provided in CERCLA Section 121(e) and 40 CFR Section 300.415(i). (See "The Superfund Removal Procedures: Guidance on the Consideration of ARARs During Removal Actions," OSWER Directive No. 9360.3-02, August 1991).

7. Emergency Response and Notification of Releases

If any incident, or change in Study Site conditions, during the actions conducted pursuant to this Order causes or threatens to cause an additional release of hazardous substances from the Study Site or an endangerment to the public health, welfare, or the environment, OXY USA shall immediately take all appropriate action. OXY USA shall take these actions in accordance with all applicable provisions of this Order, including, but not limited to the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. OXY USA shall also immediately notify the EPA RPM at 404/562-8756 or, in the event of his/her unavailability, shall notify the EPA Hotline at (800) 424-8802 of the incident or site conditions. If OXY USA fails to respond, EPA may respond to the release or endangerment and reserves the right to pursue cost recovery.

In addition, in the event of any release of a hazardous substance above its reportable quantity, as set out in 40 C.F.R. Part 302, from the Study Site, OXY USA shall immediately notify EPA's RPM and the National Response Center at telephone number (800) 424-8802. OXY USA shall submit a written report to EPA within seven (7) days after each release, setting forth the events

that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, not in lieu of, reporting under CERCLA Section 103(c) and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. §§ 11001 et seq.

VII. AUTHORITY OF THE REMEDIAL PROJECT MANAGERS

The EPA RPM shall be responsible for overseeing OXY USA's implementation of this Order. The EPA RPM shall have the authority vested by the NCP, including the authority to halt, conduct, or direct any work required by this Order, or to direct any other removal action undertaken at the Study Site. Absence of either RPM from the Study Site shall not be cause for stoppage of work unless specifically directed by the EPA RPM.

VIII. REIMBURSEMENT OF COSTS

OXY USA shall reimburse EPA for all Future Response Costs that are not inconsistent with the NCP. On an annual basis, EPA shall submit to OXY USA a bill for Future Response Costs that includes a cost summary report and, if requested by OXY USA, other standard cost documentation. Failure of EPA to bill OXY USA on an annual basis shall not limit the authority of EPA to bill OXY USA at a later date, nor shall it relieve OXY USA of its obligations to pay such amounts. OXY USA shall, within 30 days of receipt of the bill, remit a cashier's or certified check for the amount of the bill made payable to the "Hazardous Substance Superfund." The check shall reference the name and address of the party making payment, the Site name, the EPA Region and Site/Spill ID Number A485, and the docket number of this Order. It shall be sent to the following address:

U.S. Environmental Protection Agency, Region 4
Superfund Accounting; Attn: Superfund Collection Officer
P.O. Box 100142
Atlanta, Georgia 30384

A copy of the check should be sent to Ms. Paula V. Batchelor at:

U.S. Environmental Protection Agency
Region 4
Program Services Branch, 11th Floor
Waste Management Division
61 Forsyth Street S.W.
Atlanta, Georgia 30303

In the event that the payments for Future Response Costs are not made within 30 days of OXY USA's receipt of the bill, OXY USA shall pay interest on the unpaid balance. Interest is established at the rate specified in Section 107(a) of CERCLA. The interest for OXY USA's

failure to make timely payments on Future Response Costs shall begin to accrue on the date of OXY USA's receipt of the bill. Interest shall accrue at the rate specified through the date of the payment. Payments of interest made under this paragraph shall be in addition to such other remedies or sanctions available to the State and the United States by virtue of OXY USA's failure to make timely payments under this Section.

OXY USA may dispute all or part of a bill for Future Response Costs submitted under this Order if OXY USA alleges that EPA has made an accounting error, or if OXY USA alleges that a cost item is inconsistent with the NCP.

If any dispute over costs is resolved before payment is due, the amount due will be adjusted as necessary. If the dispute is not resolved before payment is due, OXY USA shall pay the full amount of the uncontested costs into the Hazardous Substance Fund as specified above on or before the due date. OXY USA shall transmit a copy of the check to the EPA RPM.

IX. DISPUTE RESOLUTION

The parties to this Order shall attempt to resolve, expeditiously and informally, any disagreements concerning this Order.

If OXY USA objects to any EPA action taken pursuant to this Order, including billings for Future Response Costs, OXY USA shall notify EPA in writing of its objection(s) within 7 days of receipt of notice of such action, unless the objections have otherwise been informally resolved.

EPA and OXY USA shall within 7 days from the receipt of OXY USA's written objections attempt to resolve the dispute through formal negotiations (Negotiation Period). The negotiation period may be extended at the sole discretion of EPA. EPA's decision regarding an extension of the Negotiation Period shall not constitute an EPA action subject to dispute resolution or a final agency action giving rise to judicial review.

Any agreement reached by the parties pursuant to this section shall be in writing, signed by all parties, and shall upon the signature by the parties be incorporated into and become an enforceable element of this Order. If the parties are unable to reach an agreement within the Negotiation Period, an EPA management official at the Waste Management Division Director level or higher will issue a written decision on the dispute to OXY USA. The decision of EPA shall be incorporated into and become an enforceable element of this Order upon OXY USA's receipt of the EPA decision regarding the dispute, unless and until such decision is overturned in a subsequent enforcement proceeding. OXY USA's obligations under this Order shall not be tolled by submission of any objection for dispute resolution under this section.

Following resolution of the dispute, as provided by this section, OXY USA shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs. No EPA decision made pursuant to this section shall constitute a final agency action giving rise to judicial review prior to a judicial action brought by the United States to enforce the decision.

X. FORCE MAJEURE

"Force majeure," for purposes of this Order, is defined as any event arising from causes beyond the control of OXY USA, of any entity controlled by OXY USA, or of OXY USA's contractors, that delays or prevents the performance of any obligation under this Order despite OXY USA's best efforts to fulfill the obligation. The requirement that OXY USA exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any potential force majeure event (1) as it is occurring and (2) following the potential force majeure event, such that the delay is minimized to the greatest extent possible. "Force Majeure" does not include financial inability to complete the Work.

If any event occurs or has occurred that may delay the performance of any obligation under this Order, whether or not caused by a force majeure event, OXY USA shall notify orally EPA's Project Coordinator or, in his or her absence, EPA's Alternate Project Coordinator or, in the event both of EPA's designated representatives are unavailable, the Director of the Waste Management Division, EPA Region 4, within **72 hours** of when OXY USA first knew that the event might cause a delay. Within **7 days** thereafter, OXY USA shall provide in writing to EPA an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; OXY USA's rationale for attributing such delay to a force majeure event if they intend to assert such a claim; and a statement as to whether, in the opinion of OXY USA, such event may cause or contribute to an endangerment to public health, welfare or the environment. OXY USA shall include with any notice all available documentation supporting their claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude OXY USA from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failure. OXY USA shall be deemed to know of any circumstance of which OXY USA, any entity controlled by OXY USA, or OXY USA's contractors knew or reasonably should have known.

If EPA agrees that the delay or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Order that are affected by the force majeure event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation. If EPA does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, EPA will notify OXY USA in writing of its decision. If EPA agrees that the delay is attributable to a force majeure event, EPA will notify OXY USA in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

If OXY USA elects to invoke the dispute resolution procedures set forth in Section IX (Dispute Resolution), it shall do so no later than **15 days** after receipt of EPA's notice. In any such proceeding, OXY USA shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event,

that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that OXY USA complied with the requirements of this Section. If OXY USA carries this burden, the delay at issue shall be deemed not to be a violation by OXY USA of the affected obligation of this Order identified to EPA.

XI. STIPULATED AND STATUTORY PENALTIES

For each day, or portion thereof, that OXY USA fails to perform, any material requirement of this Order in accordance with the schedule established pursuant to this Order, OXY USA shall be liable as follows:

<u>Days of Non-Compliance</u>	<u>Penalty (\$/day)</u>
Day 1-7	\$250
Day 8-14	\$500
Day 15 and beyond	\$1,000

Upon receipt of written demand by EPA, OXY USA shall make payment to EPA within 30 days. Interest shall accrue on late payments as of the date the payment is due which is the date of the violation or act of non-compliance triggering the stipulated penalties. EPA will treat OXY USA and Glenn Springs Holdings as a single respondent for purposes of stipulated penalties.

Even if violations are simultaneous, separate penalties shall accrue for separate violations of this Order. Penalties accrue and are assessed per violation per day. Penalties shall accrue regardless of whether EPA has notified OXY USA of a violation or act of noncompliance. The payment of penalties shall not alter in any way OXY USA's obligation to complete the performance of the work required under this Order.

Violation of any provision of this Order may subject OXY USA to civil penalties of up to twenty-seven thousand five hundred dollars (\$27,500) per violation per day, as provided in Section 106(b)(1) of CERCLA, 42 U.S.C. § 9606(b)(1). Provided, however, that the United States shall not seek civil penalties pursuant to Section 122(l) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of this Order. OXY USA may also be subject to punitive damages in an amount up to three times the amount of any cost incurred by the United States as a result of such violation, as provided in Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Should OXY USA violate this Order or any portion hereof, EPA may carry out the required actions unilaterally, pursuant to Section 104 of CERCLA, 42 U.S.C. § 9604, and/or may seek judicial enforcement of this Order pursuant to Section 106 of CERCLA, 42 U.S.C. § 9606.

XII. RESERVATION OF RIGHTS

Except as specifically provided in this Order, nothing herein shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of

hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing herein shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Order, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring OXY USA in the future to perform additional activities pursuant to CERCLA or any other applicable law. EPA reserves the right to bring an action against OXY USA under Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of any response costs incurred by the United States related to this Order or the Site and not reimbursed by OXY USA.

XIII. OTHER CLAIMS

By issuance of this Order, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of OXY USA, nor does OXY USA assume liability for injuries or damages to persons or property resulting from any acts or omissions of EPA. Neither the United States nor EPA shall be deemed a party to any contract entered into by OXY USA or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Order.

Nothing in this Order constitutes a satisfaction of or release from any claim or cause of action against OXY USA or any person not a party to this Order, for any liability such person may have under CERCLA, other statutes, or the common law, including but not limited to any claims of the United States for costs, damages and interest under Sections 106(a) and 107(a) of CERCLA, 42 U.S.C. §§ 9606(a) and 9607(a).

This Order does not constitute a preauthorization of funds under Section 111(a)(2) of CERCLA, 42 U.S.C. § 9611(a)(2). OXY USA waives any claim to payment under Sections 106(b), 111, and 112 of CERCLA, 42 U.S.C. §§ 9606(b), 9611, and 9612, against the United States or the Hazardous Substance Superfund arising out of any action performed under this Order.

No action or decision by EPA pursuant to this Order shall give rise to any right to judicial review except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

Except as set forth herein, OXY USA explicitly reserves and does not waive any claims it has under CERCLA or otherwise against the United States.

XIV. COVENANTS NOT TO SUE

Except as otherwise specifically provided in this Order, upon issuance of the notice referred to in Section XX - Notice of Completion, EPA covenants not to sue OXY USA, and, to the extent permitted by CERCLA, any corporate affiliates, officers, directors, agents, successors and employees of either OXY USA or of CanadianOxy Offshore Production Co. ("COOPCO"), for judicial imposition of damages or civil penalties or to take administrative action against OXY USA, and, to the extent permitted by CERCLA, any corporate affiliates, officers, directors, agents, successors and employees of either OXY USA or of COOPCO, for any failure to perform removal actions agreed to in this Order, except as otherwise reserved herein.

Except as otherwise specifically provided in this Order, in consideration and upon OXY USA's payment of the response costs specified in Section VIII of this Order, EPA covenants not to sue or to take administrative action against OXY USA under Section 107(a) of CERCLA for recovery of response costs incurred by the United States in connection with this Order or removal action(s) performed pursuant to this Order. This covenant not to sue shall take effect upon the receipt by EPA of the payments required by Section VIII - Reimbursement of Costs.

These covenants not to sue are conditioned upon the complete and satisfactory performance by OXY USA of its obligations under this Order. These covenants not to sue extend only to OXY USA and do not extend to any other person.

XV. CONTRIBUTION PROTECTION

With regard to claims for contribution against OXY USA for matters addressed in this Order, the Parties hereto agree that OXY USA is entitled to protection from contribution actions or claims to the extent provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4). Nothing in this Order precludes the United States, the State or OXY USA from asserting any claims, causes of action or demands against any persons not parties to this Order for indemnification, contribution, or cost recovery.

XVI. INDEMNIFICATION

The United States does not assume any liability by entering into this agreement or by virtue of any designation of OXY USA as EPA's authorized representatives under Section 104(e) of CERCLA. OXY USA shall indemnify, save and hold harmless the United States, and its officials, agents, employees, contractors, subcontractors, or representatives for or from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of OXY USA, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Order, including, but not limited to, any claims arising from any designation of OXY USA as EPA's authorized representatives under Section 104(e) of CERCLA. Further, OXY USA agrees to pay the United States all costs it incurs including, but not limited to, attorneys fees and other expenses of litigation and settlement arising from, or on account of, claims made against the United States based on negligent or other wrongful acts or omissions of OXY USA, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Order. The United States shall not be held out as a party to any contract entered into by or on behalf of OXY USA in carrying out activities pursuant to this Order. Neither OXY USA nor any such contractor shall be considered an agent of the United States.

The United States shall give OXY USA notice of any claim for which the United plans to seek indemnification pursuant to this Section and shall consult with OXY USA prior to settling such claim.

OXY USA waives all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between OXY USA and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, OXY USA shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between OXY USA and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

XVII. INSURANCE

At least seven (7) days prior to commencing any on-site work under this Order, OXY USA shall secure, and shall maintain for the duration of this Order, comprehensive general liability insurance and automobile insurance with limits of **five million dollars**, combined single limit. Within the same time period, OXY USA shall provide EPA with certificates of such insurance and a copy of each insurance policy. If OXY USA demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then OXY USA need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

XVIII. FINANCIAL ASSURANCE

Within 30 days after the date EPA provides notice to OXY USA of the amount necessary for financial assurance, and until EPA issues a notice of completion of work under Section XX, OXY USA shall establish and maintain financial security in an amount sufficient (as determined by EPA) to perform the response actions required by this Order in one or more of the following forms:

- a. A surety bond guaranteeing performance of the Work;
- b. One or more irrevocable letters of credit equaling the total estimated cost of the Work;
- c. A trust fund;
- d. A guarantee to perform the Work by one or more parent corporations or subsidiaries, or by one or more unrelated corporations that have a substantial business relationship with OXY USA; or
- e. A demonstration that OXY USA meets the substantive requirements of 40 C.F.R. Part 264.143(f).

If OXY USA seeks to demonstrate the ability to complete the Work through a guarantee by a third party pursuant to sub-part d. of the preceding Paragraph, OXY USA shall demonstrate that the guarantor satisfies the requirements of 40 C.F.R. Part 264.143(f). If OXY USA seeks to demonstrate its ability to complete the Work by means of the financial test or the corporate guarantee pursuant to subpart d. or e. of the preceding Paragraph, it shall resubmit sworn statements conveying the information required by 40 C.F.R. Part 264.143(f) annually, on the anniversary of the effective date of this Order. In the event that EPA determines at any time that the financial assurances provided pursuant to this Section are inadequate, OXY USA shall, within 30 days of receipt of notice of EPA's determination, obtain and present to EPA for approval one

of the other forms of financial assurance listed in the preceding Paragraph. OXY USA's inability to demonstrate financial ability to complete the Work shall not excuse performance of any activities required under this Order.

If, after entry of this Order, OXY USA can show that the estimated cost to complete the remaining Work has diminished below the amount set forth pursuant to the first Paragraph of this Section, OXY USA may, on any anniversary date of entry of this Order, or at any other time agreed to by the Parties, reduce the amount of the financial security provided under this Section to the estimated cost of the remaining work to be performed. OXY USA shall submit a proposal for such reduction to EPA, in accordance with the requirements of this Section, and may reduce the amount of the security upon approval by EPA. In the event of a dispute, OXY USA may reduce the amount of the security in accordance with the final administrative decision resolving the dispute.

OXY USA may change the form of financial assurance provided under this Section at any time, upon notice to and approval by EPA, provided that the new form of assurance meets the requirements of this Section. In the event of a dispute, OXY USA may change the form of the financial assurance only in accordance with the final administrative decision resolving the dispute.

XIX. MODIFICATIONS

Modifications to any plan or schedule may be made in writing by the EPA OSC or at the EPA OSC's oral direction. Any such modification shall be consistent with the description of the work to be performed in Section VI.2. or VI.2.7., as applicable. If the EPA OSC makes an oral modification, it will be memorialized in writing within 7 days; provided, however, that the effective date of the modification shall be the date of the EPA OSC's oral direction. Any other requirements of the Order may be modified in writing by mutual agreement of the parties.

If OXY USA seeks permission to deviate from any approved Work Plan or schedule or Statement of Work, OXY USA's Project Coordinator shall submit a written request to EPA for approval outlining the proposed Work Plan modification and its basis.

No informal advice, guidance, suggestion, or comment by EPA regarding reports, plans, specifications, schedules, or any other writing submitted by OXY USA shall relieve OXY USA of its obligation to obtain such formal approval as may be required by this Order, and to comply with all requirements of this Order unless it is formally modified.

XX. NOTICE OF COMPLETION

Unless the Removal Action selected by EPA and identified in the Action Memorandum includes lime treatment at the South Mine Pit, when EPA has determined, after review of the Final EE/CA Report, that all removal actions have been fully performed in accordance with this Order, with the exception of any continuing obligations required by this Order, including **post-removal site controls or record retention**, EPA will provide notice to OXY USA. If EPA determines that any removal actions have not been completed in accordance with this Order, EPA will notify OXY

USA, provide a list of the deficiencies, and require that OXY USA modify the EE/CA Work Plan if appropriate in order to correct such deficiencies. OXY USA shall implement the modified and approved EE/CA Work Plan and shall submit a modified Final Report to EPA in accordance with the EPA notice. Failure by OXY USA to implement the approved modified EE/CA Work Plan shall be a violation of this Order.

If the Removal Action selected by EPA and identified in the Action Memorandum includes lime treatment at the South Mine Pit, then when EPA has determined that: 1) performance goals established in the Commissioner's Order have been attained and TDEC has issued the Letter of Completion under Paragraph 22(c) of the Commissioner's Order; and 2) all required removal actions have been fully performed in accordance with this Order, with the exception of any continuing obligations required by this Order, including post-removal site controls or record retention, then, EPA will provide notice to OXY USA. If EPA determines that any removal actions have not been completed in accordance with this Order, EPA will notify OXY USA, provide a list of the deficiencies, and require that OXY USA modify the Removal Work Plan if appropriate in order to correct such deficiencies. OXY USA shall implement the modified and approved Removal Work Plan and shall submit a modified Final Report to EPA in accordance with the EPA notice. Failure by OXY USA to implement the approved modified Removal Work Plan shall be a violation of this Order.

XXI. SEVERABILITY

If a court issues an order that invalidates any provision of this Order or finds that OXY USA has sufficient cause not to comply with one or more provisions of this Order, OXY USA shall remain bound to comply with all provisions of this Order not invalidated or determined to be subject to a sufficient cause defense by the court's order.

XXII. EFFECTIVE DATE

This Order may be executed in any number of counterparts, each of which when executed and delivered to EPA shall be deemed to be an original, but such counterparts shall together constitute one and the same document.

This Order shall be effective when the Order is signed by the Regional Administrator of EPA, Region IV.

OXY USA

The undersigned representative(s) of OXY USA certifies that it is fully authorized to enter into the terms and conditions of this Order and to bind the party it represents to this document.

Agreed this _____ day of _____, 2001.

OXY USA, INC.

By _____

Title _____

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 4

It is so ORDERED and Agreed this 11th day of January, 2001.

BY: 

DATE: 1/11/2001

John H. Hankinson, Jr.

Regional Administrator

Region IV

U.S. Environmental Protection Agency

EFFECTIVE DATE: _____

XXII. EFFECTIVE DATE

This Order may be executed in any number of counterparts, each of which when executed and delivered to EPA shall be deemed to be an original, but such counterparts shall together constitute one and the same document.

This Order shall be effective when the Order is signed by the Regional Administrator of EPA, Region IV.

OXY USA

The undersigned representative(s) of OXY USA certifies that it is fully authorized to enter into the terms and conditions of this Order and to bind the party it represents to this document.

Agreed this 11 day of January, 2001.

OXY USA, INC.

By John Perisko
Title Vice-President